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As filed with the Securities and Exchange Commission on July 17, 2015

Registration No. 333-204423

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

AMENDMENT NO. 2
TO
FORM S-4
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

TARGACEPT, INC.

(Exact name of Registrant as specified in its charter)

Delaware	**2834**	**56-2020050**
(State or other jurisdiction of incorporation or organization)	**(Primary Standard Industrial Classification Code Number)**	**(I.R.S. Employer Identification Number)**

100 North Main Street, Suite 1510
Winston-Salem, North Carolina 27101
(336) 480–2100
(Address including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Dr. Stephen A. Hill
President and Chief Executive Officer
Targacept, Inc.
100 North Main Street, Suite 1510
Winston-Salem, North Carolina 27101
(336) 480-2100
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Megan N. Gates, Esq. **Marc D. Mantell, Esq.** **Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.** **One Financial Center** **Boston, MA 02111** **(617) 542-6000**	**Patrick C. Rock, Esq.** **Senior Vice President, General Counsel and Secretary** **Targacept, Inc.** **100 North Main Street, Suite 1510** **Winston-Salem, NC 27101** **(336) 480-2100**	**Nassim Usman, Ph.D.** **President and Chief Executive Officer** **Catalyst Biosciences, Inc.** **260 Littlefield Avenue** **South San Francisco, CA 94080** **(650) 745-0655**	**Stephen B. Thau, Esq.** **Morrison & Foerster LLP** **1650 Tysons Boulevard** **McLean, VA 22102** **(650) 813-5640**

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effectiveness of this registration statement and the satisfaction or waiver of all other conditions under the Merger Agreement described herein.

If the securities being registered on this Form are being offered in connection with the formation of a holding company and there is compliance with General Instruction G, please check the following box. ☐

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☒
Non-accelerated filer	☐ (Do not check if a smaller reporting company)	Smaller reporting company	☐

If applicable, place an X in the box to designate the appropriate rule provision relied upon in conducting this transaction:

Exchange Act Rule 13(e)-4(i) (Cross-Border Issuer Tender Offer) ☐

Exchange Act Rule 14d-1(d) (Cross-Border Third-Party Tender Offer) ☐

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered	Proposed maximum offering price per unit	Proposed maximum aggregate offering price	Amount of Registration fee(1)
Common stock, $0.001 par value(2)	6,937,017(3)	—	$5,446,000(4)	(1)
Redeemable convertible notes(5)	$37,000,000	—	$37,000,000	(1)
Common stock issuable upon conversion of redeemable convertible notes(6)	4,026,116(7)	—	—	—
Total	—	—	$42,446,000	(1)

(1) Registration fee for the securities being offered under this amended Registration Statement has been previously paid at the time of the initial filing of this Registration Statement on May 22, 2015.

(2) Relates to common stock, $0.001 par value per share, of Targacept, Inc., a Delaware corporation, or Targacept, issuable to holders of common stock, $0.001 par value per share, of Catalyst Biosciences, Inc., a Delaware corporation, or Catalyst, and holders of warrants to purchase shares of common stock of Catalyst, in the proposed merger of Talos Merger Sub, Inc., a Delaware corporation and a wholly owned subsidiary of Targacept, with and into Catalyst.

(3) The amount of Targacept common stock to be registered is based on the maximum number of shares of Targacept common stock that are issuable to Catalyst equity holders pursuant to the merger, based on Targacept's shares outstanding as of July 15, 2015, assuming Catalyst's net cash, as defined in the Merger Agreement, exceeds, by the maximum amount, the target set forth in the merger agreement, and giving effect to a 7-for-1 reverse stock split of the Targacept common stock immediately prior to the closing of the merger.

(4) Estimated solely for purposes of calculating the registration fee in accordance with Rule 457(f) of the Securities Act of 1933, as amended, based upon the estimated book value of the Catalyst securities to be exchanged in the merger, as of immediately prior to the merger, giving effect to the maximum anticipated amount of a planned equity financing of Catalyst to take place prior to the merger. Catalyst is a private company and no market exists for its securities.

(5) Immediately prior to the effective time of the merger, holders of Targacept common stock as of the record date will receive a dividend of $37,000,000 in aggregate principal amount of redeemable convertible notes.

(6) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended, this registration statement also registers such shares of Targacept common stock as may be issued or issuable to prevent dilution resulting from any stock split, stock dividend, recapitalization or similar event as a result of the anti-dilution provisions related to the redeemable convertible notes.

(7) Calculated based on conversion of all redeemable convertible notes being registered at a rate of $9.19 per share of Targacept common stock, giving effect to a 7-for-1 reverse stock split of the Targacept common stock immediately prior to the closing of the merger.

The Registrant hereby amends this registration statement on the date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on the date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

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The information in this proxy statement/prospectus/information statement is not complete and may be changed. Targacept may not sell its securities pursuant to the proposed transactions until the Registration Statement filed with the Securities and Exchange Commission is effective. This proxy statement/prospectus/information statement is not an offer to sell these securities and we are not soliciting an offer to buy these securities in any state or other jurisdiction where the offer or sale is not permitted.

Subject to completion, dated July 17, 2015

PROPOSED MERGER
YOUR VOTE IS VERY IMPORTANT

To the Stockholders of Targacept, Inc. and Catalyst Biosciences, Inc.:

Targacept, Inc., or Targacept, and Catalyst Biosciences, Inc., or Catalyst, have entered into an Agreement and Plan of Merger, as amended, or the Merger Agreement, pursuant to which a wholly owned subsidiary of Targacept will merge with and into Catalyst, with Catalyst surviving as a wholly owned subsidiary of Targacept, which we refer to as the merger. Catalyst and Targacept believe that the merger will result in a financially strong pharmaceutical company focused on harnessing the catalytic power of engineered human proteases to develop next-generation biopharmaceuticals addressing serious unmet needs in multiple high value indications. We expect the combined company to have the resources to advance its pipeline of protease therapeutics and three additional promising drug candidates through multiple important development milestones.

Immediately prior to the effective time of the merger, each share of Catalyst preferred stock will be converted into shares of Catalyst common stock at a ratio determined in accordance with the Catalyst certificate of incorporation then in effect. At the effective time of the merger, each share of Catalyst common stock outstanding immediately prior to the effective time of the merger will be converted into the right to receive a fraction of a share of Targacept common stock calculated pursuant to the Merger Agreement, the precise number of which will be determined by a formula that is subject to adjustments as described in this proxy statement/prospectus/information statement. Also, at the effective time of the merger, each outstanding option and warrant, whether or not vested, to purchase Catalyst common stock unexercised immediately prior to the effective time of the merger will be converted into an option or warrant to purchase Targacept common stock. All rights with respect to each Catalyst option or warrant will be assumed by Targacept in accordance with its terms. Targacept stockholders will continue to own and hold their existing shares of Targacept common stock.

Holders of Targacept common stock as of a record date to be set prior to the closing will also receive a dividend of $37.0 million in aggregate principal amount of redeemable convertible notes and approximately $19.0 million in cash. We refer to this dividend as the Pre-Closing Dividend. The notes will be convertible, at the option of the noteholders, into shares of the combined company at a conversion rate of $9.19 per share, which represents 130% of the negotiated per-share value of Targacept's assets following the anticipated Pre-Closing Dividend, as adjusted to reflect the planned 7-for-1 reverse stock split described elsewhere in this proxy statement/prospectus/information statement, which is subject to Targacept stockholder approval.

Immediately following the effective time of the proposed merger, existing Catalyst equity holders are expected to own approximately 58% of the combined company, and existing Targacept equity holders are expected to own approximately 42% of the combined company. If, in the future, the redeemable convertible notes are fully converted into Targacept common stock, existing Targacept equity holders would own approximately 57% of the outstanding capital stock of the combined company on a pro forma basis. Cash from Targacept remaining in the combined company is expected to be $35.0 million, and it is anticipated that Catalyst will have approximately $5.0 million of cash at the time of the closing.

Shares of Targacept common stock are currently listed on the NASDAQ Global Select Market under the symbol "TRGT." Targacept has filed an initial listing application with the NASDAQ Global Select Market relating to the combined company, pursuant to NASDAQ "reverse merger" rules. After completion of the merger, Targacept will be renamed "Catalyst Biosciences, Inc." and expects to trade on the NASDAQ Global Select Market under the symbol "CBIO." On [●], 2015, the last trading day before the date of this proxy statement/prospectus/information statement, the closing sale price of Targacept common stock was $[●] per share.

As part of its 2015 annual stockholders meeting, Targacept will be seeking the stockholder approvals necessary to complete the merger and related matters. The Targacept annual stockholders meeting will be held at [●], local time, on [●], 2015, at [●], unless postponed or adjourned to a later date. At the annual meeting, Targacept will ask its stockholders to, among other things:

1. approve the Agreement and Plan of Merger, or the Merger Agreement, dated as of March 5, 2015, as amended on May 6 and May 13, 2015, by and among Targacept, Talos Merger Sub, Inc. and Catalyst, a copy of which is attached as Annex A to this proxy statement/prospectus/information statement, and the issuance of shares of Targacept common stock to Catalyst stockholders and the issuance of redeemable convertible notes of Targacept to Targacept stockholders by virtue of the merger contemplated by the Merger Agreement;
2. approve an amendment to Targacept's restated certificate of incorporation effecting a reverse stock split of Targacept common stock, at a ratio of 7-for-1, which is referred to herein as the reverse stock split;
3. approve an amendment to Targacept's restated certificate of incorporation changing Targacept's corporate name to "Catalyst Biosciences, Inc.";
4. approve the Targacept 2015 Stock Incentive Plan;

5. elect one Class III director to Targacept's board of directors for a term of three years (provided, however, that, if the merger is completed, the board of directors will be reconstituted as provided in the Merger Agreement);
6. approve, on an advisory basis, the compensation of Targacept's named executive officers;
7. approve, on an advisory basis, the golden parachute compensation that may be paid or become payable to Targacept's named executive officers as a result of the merger;
8. ratify the appointment of Ernst & Young, LLP as Targacept's independent registered public accounting firm for the fiscal year ending December 31, 2015;
9. consider and vote on a proposal to adjourn the annual meeting, if necessary, to solicit additional proxies, in the event that there are not sufficient votes at the time of the annual meeting to approve the items under 1, 2 and 3 above; and
10. transact such other business as may properly come before the stockholders at the Targacept annual stockholders meeting or any adjournment or postponement thereof.

As described in the accompanying proxy statement/prospectus/information statement, certain Catalyst securityholders who, in the aggregate, own approximately 84% of the outstanding shares of Catalyst common stock on an as-converted to common stock basis, are parties to voting agreements with Targacept and Catalyst whereby the stockholders agreed to vote in favor of the adoption of the Merger Agreement. Also, certain Targacept securityholders who, in the aggregate, own approximately 41% of the outstanding shares of Targacept common stock, are parties to voting agreements with Targacept and Catalyst whereby such stockholders agreed to vote in favor of the issuance of Targacept common stock in the merger as contemplated by the Merger Agreement. In addition, the same securityholders of Catalyst subject to the voting agreements are also parties to lock-up agreements, whereby such securityholders agreed not to, except in limited circumstances, sell or transfer, or engage in swap or similar transactions with respect to, shares of Catalyst capital stock, stock options and warrants, including, as applicable, shares received in the merger and issuable upon exercise of certain warrants and options, from the effective date of the merger until 120 days after the closing date of the merger.

In addition, pursuant to the Merger Agreement, following the registration statement on Form S-4, of which this proxy statement/prospectus/information statement is a part, being declared effective by the Securities and Exchange Commission, Catalyst securityholders who are party to the voting agreements and lock-up agreements will each execute an action by written consent of the Catalyst stockholders, referred to herein as the written consent, indicating their approval of the merger, adoption of the Merger Agreement and consent to Catalyst taking all actions necessary in connection therewith. Therefore, holders of a sufficient number of shares of Catalyst capital stock required to adopt the Merger Agreement will adopt the Merger Agreement, and no meeting of Catalyst stockholders to adopt the Merger Agreement and approve the merger and related transactions will be held. Nevertheless, all Catalyst stockholders will have the opportunity to elect to adopt the Merger Agreement, thereby approving the merger and related transactions, by signing and returning to Catalyst a written consent.

After careful consideration, the Targacept and Catalyst boards of directors have unanimously approved the Merger Agreement and each of the Targacept and Catalyst boards of directors has determined that it is advisable to enter into the merger. The board of directors of Targacept unanimously recommends that its stockholders vote "FOR" the proposals described in the accompanying proxy statement/prospectus/information statement, and the board of directors of Catalyst recommends that its stockholders sign and return the written consent indicating their approval of the merger, adoption of the Merger Agreement and consent to Catalyst taking all actions necessary in connection therewith.

More information about Targacept, Catalyst and the proposed transaction is contained in this proxy statement/prospectus/information statement. Targacept and Catalyst urge you to read the accompanying proxy statement/prospectus/information statement carefully and in its entirety. IN PARTICULAR, YOU SHOULD CAREFULLY CONSIDER THE MATTERS DISCUSSED UNDER "RISK FACTORS" BEGINNING ON PAGE 18.

Targacept and Catalyst are excited about the opportunities the merger brings to both Targacept and Catalyst stockholders. Thank you for your consideration and continued support.

Dr. Stephen A. Hill
President and Chief Executive Officer
Targacept, Inc.

Dr. Nassim Usman
President and Chief Executive Officer
Catalyst Biosciences, Inc.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this proxy statement/prospectus/information statement. Any representation to the contrary is a criminal offense.

The accompanying proxy statement/prospectus/information statement is dated [●], 2015, and is first being mailed to Targacept and Catalyst stockholders on or about [●], 2015.

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Targacept, Inc.
100 North Main Street, Suite 1510
Winston-Salem, North Carolina 27101 USA
Tel: 336-480-2100
Fax: 336-480-2107
www.targacept.com

NOTICE OF 2015 ANNUAL MEETING OF TARGACEPT STOCKHOLDERS
TO BE HELD ON [●], 2015

Time: [●]

Date: [●], 2015

Place: [●]

Purposes:

1. To approve the Agreement and Plan of Merger dated as of March 5, 2015, as amended on May 6 and May 13, 2015, by and among Targacept, Talos Merger Sub, Inc. and Catalyst, a copy of which is attached as Annex A to the accompanying proxy statement/prospectus/information statement, and the issuance of shares of Targacept common stock to Catalyst stockholders and the issuance of redeemable convertible notes of Targacept to Targacept stockholders by virtue of the merger contemplated by the Merger Agreement;
2. To authorize an amendment to Targacept's restated certificate of incorporation to effect a reverse stock split of Targacept's issued and outstanding shares of common stock, pursuant to which seven (7) shares of outstanding Targacept common stock would be combined and reclassified into one share of Targacept common stock, in the form attached as Annex E to the accompanying proxy statement/prospectus/information statement;
3. To approve an amendment to Targacept's restated certificate of incorporation to change the name "Targacept, Inc." to "Catalyst Biosciences, Inc." in the form attached as Annex E to the accompanying proxy statement/prospectus/information statement;
4. To approve the Targacept 2015 Stock Incentive Plan, a copy of which is attached as Annex F to the accompanying proxy statement/prospectus/information statement;
5. To elect one Class III director to Targacept's board of directors for a term of three years (provided, however, that if the merger is completed, the board of directors will consist of the seven persons identified in this proxy statement/prospectus/information statement);
6. To hold an advisory vote to approve the compensation of Targacept's named executive officers as disclosed in this proxy statement/prospectus/information statement, pursuant to the compensation disclosure rules of the Securities and Exchange Commission;
7. To approve, on an advisory basis, the golden parachute compensation that may be paid or become payable to Targacept's named executive officers as disclosed in this proxy statement/prospectus/information statement;
8. To ratify the appointment of Ernst & Young LLP as Targacept's independent registered public accounting firm for the fiscal year ending December 31, 2015;
9. To consider and vote on a proposal to adjourn the annual meeting, if necessary, to solicit additional proxies, in the event that there are not sufficient votes at the time of the annual meeting to approve Proposal Nos. 1, 2 and 3; and
10. To consider any other business that is properly brought before the meeting and any adjournments or postponements thereof.

Record Date: The board of directors has fixed the close of business on July 15, 2015 as the record date for determining stockholders entitled to notice of and to vote at the meeting. Only holders of record of shares of Targacept common stock at the close of business on the record date are entitled to notice of, and to vote at, the Targacept annual stockholders meeting. At the close of business on the record date, Targacept had 34,292,291 shares of common stock outstanding and entitled to vote.

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Your vote is important. The affirmative vote of the holders of a majority of the shares of Targacept common stock having voting power present in person or represented by proxy at the Targacept annual stockholders meeting is required for approval of Targacept Proposal Nos. 1, 4, 6, 7, 8 and 9. The affirmative vote of the holders of a majority of shares of Targacept common stock having voting power outstanding on the record date for the Targacept annual stockholders meeting is required for approval of Targacept Proposal Nos. 2 and 3. The affirmative vote of a plurality of the votes properly cast at the Targacept annual stockholders meeting is required for approval of Proposal No. 5. Each of Proposal Nos. 1, 2 and 3 are conditioned upon each other and the approval of each such proposal is a condition to the completion of the merger. Therefore, the completion of the merger, the issuance of Targacept common stock and redeemable convertible notes in connection with the merger and the amendments to the restated certificate of incorporation of Targacept will not take place without the approval of Proposal Nos. 1, 2 and 3.

Even if you plan to attend the Targacept annual stockholders meeting in person, Targacept requests that you please sign and return the enclosed proxy to ensure that your shares will be represented at the Targacept annual stockholders meeting if you are unable to attend. You may change or revoke your proxy at any time before it is voted at the meeting.

THE TARGACEPT BOARD OF DIRECTORS HAS DETERMINED AND BELIEVES THAT EACH OF THE PROPOSALS OUTLINED ABOVE IS ADVISABLE TO, AND IN THE BEST INTERESTS OF, TARGACEPT AND ITS STOCKHOLDERS AND HAS APPROVED EACH SUCH PROPOSAL. THE TARGACEPT BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT TARGACEPT STOCKHOLDERS VOTE "FOR" EACH SUCH PROPOSAL.

By Order of the Targacept Board of Directors,

Patrick C. Rock,
Senior Vice President, General Counsel and Secretary
Winston-Salem, North Carolina
[●], 2015

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QUESTIONS AND ANSWERS ABOUT THE MERGER

Except where specifically noted, the following information and all other information contained in this proxy statement/prospectus/information statement does not give effect to the proposed reverse stock split described in Targacept Proposal No. 2, beginning on page 176.

The following section provides answers to frequently asked questions about the merger. This section, however, provides only summary information. Please refer to the more detailed information contained elsewhere in this proxy statement/prospectus/information statement and the annexes to and the documents referred to or incorporated by references in this proxy statement/prospectus/information statement.

Q. Why am I receiving this proxy statement/prospectus/information statement?

A: You are receiving this proxy statement/prospectus/information statement because you have been identified as either a stockholder of Targacept as of the record date for the Targacept annual stockholders meeting or a stockholder of Catalyst as of the record date for Catalyst's notice of action taken by written consent. In the former case, you are being asked to vote at the Targacept stockholders meeting to approve, among other things, the Merger Agreement and the issuance of shares of Targacept common stock and the issuance of redeemable convertible notes as contemplated by the Merger Agreement. In the latter case, you are being asked to sign and return the Catalyst written consent indicating your approval of the merger, adoption of the Merger Agreement and consent to Catalyst taking all actions necessary in connection therewith. This document serves as:

- a proxy statement of Targacept used to solicit proxies for its stockholders meeting;
- a prospectus of Targacept used to offer shares of Targacept common stock in exchange for shares of Catalyst common stock and to offer redeemable convertible notes of Targacept, in each case pursuant to the terms of the Merger Agreement, and to offer shares of Targacept common stock issuable upon conversion of the redeemable convertible notes pursuant to the terms thereof; and
- an information statement of Catalyst used to solicit the written consent of its stockholders for the approval of the merger, adoption of the Merger Agreement and the consent to Catalyst taking all actions necessary in connection therewith.

Q: What is the merger?

A: Targacept, Inc., or Targacept, and Catalyst Biosciences, Inc., or Catalyst, have entered into an Agreement and Plan of Merger, dated as of March 5, 2015, as amended on May 6 and May 13, 2015, which we refer to as the Merger Agreement. The Merger Agreement contains the terms and conditions of the proposed business combination of Targacept and Catalyst. Under the Merger Agreement, Talos Merger Sub, Inc., a wholly owned subsidiary of Targacept, or Merger Sub, will merge with and into Catalyst, with Catalyst surviving as a wholly owned subsidiary of Targacept. Thereafter, Targacept will change its corporate name to "Catalyst Biosciences, Inc." as required by the Merger Agreement. This transaction is referred to as "the merger."

At the effective time of the merger, each share of Catalyst common stock outstanding immediately prior to the effective time of the merger will be converted into the right to receive a fraction of a share of Targacept common stock. It is currently anticipated that, at the closing of the merger, the exchange ratio would be within the range of approximately 0.24 – 0.30, based on shares of Catalyst capital stock and Targacept capital stock anticipated to be outstanding as of the closing of the merger, and assuming that Catalyst's "net cash," as defined in the Merger Agreement, at closing reaches the target set forth in the Merger Agreement. The exchange ratio is also subject to adjustment to account for a reverse stock split of Targacept common stock to be implemented prior to the closing of the merger. Following the closing of the merger, Catalyst warrantholders and optionholders will have their Catalyst warrants and options converted into warrants and options to purchase Targacept common stock, as applicable, with the number of shares and exercise price being appropriately adjusted to reflect the Exchange Ratio.

As a result, following the completion of the merger, Catalyst's current holders of common stock, options and warrants (together referred to as Catalyst's equity holders) would own in the aggregate approximately 58% of the combined company's outstanding common stock (assuming full exercise of outstanding options and warrants, whether vested or unvested) and Targacept's current holders of common stock and in-the-money options (together referred to as Targacept's equity holders) would own in the aggregate approximately 42% of the combined company's outstanding common stock (assuming full exercise of outstanding options and warrants, whether vested or unvested). In addition, before the closing of the merger, Targacept expects to distribute pro rata to its stockholders a dividend of $37.0 million in aggregate principal amount of redeemable convertible notes, in addition to approximately $19.0 million in cash, collectively referred to as the "Pre-Closing Dividend." If the redeemable convertible notes are fully converted by noteholders into shares of the combined company, the existing Targacept equity holders would own approximately 57% of the combined company's outstanding common stock (assuming full exercise of outstanding options and warrants, whether vested or unvested) on a pro-forma basis as of the anticipated closing date. For a more complete description of the redeemable convertible notes, see the section entitled "Description of the Convertible Notes" beginning on page 294.

The number of shares of Targacept common stock into which each share of Catalyst common stock will be converted in the merger is referred to as the "Exchange Ratio." **The rules applicable to the calculation of the Exchange Ratio, which are described in the sections entitled "The Merger—Exchange Ratio Calculation" beginning on page 97 and "The Merger Agreement—Exchange Ratio" beginning on page 119, are complex, and circumstances as of the effective time of the merger may result in an Exchange Ratio outside of the anticipated 0.24 – 0.30 range.**

For a more complete description of what Catalyst stockholders, warrantholders and optionholders will receive in the merger, please see the sections entitled "The Merger Agreement—Exchange Ratio" beginning on page 119 and "The Merger Agreement—Merger Consideration" beginning on page 118.

Q: What impact will the recent termination of Catalyst's agreement with Pfizer have on the merger?

A: As previously reported, on April 1, 2015, Catalyst notified Targacept that Pfizer, Inc. would be exercising its right to terminate in its entirety the June 29, 2009, research and license agreement between Catalyst and Wyeth LLC (a wholly owned subsidiary of Pfizer), which governs the development and commercialization of Catalyst's leading human Factor VIIa product candidate for the treatment of hemophilia and surgical bleeding indications, known as CB 813d/PF-05280602. On April 2, 2015, Pfizer provided Catalyst with its formal written notice of termination of the research and license agreement.

Upon the June 1, 2015, effective date of the termination, the license and certain rights under the research and license agreement will terminate and revert to Catalyst. Catalyst has informed Targacept that Pfizer is committed to an orderly transfer of data, regulatory documentation and related technology under the agreement to Catalyst to enable Catalyst to continue the clinical development of this product candidate.

As previously reported, following the termination of the Pfizer agreement, Targacept and Catalyst renegotiated certain terms of the merger agreement. The merger is now expected to close in the third quarter of 2015.

Q: What will happen to Targacept if, for any reason, the merger does not close?

A: If, for any reason, the merger does not close, the Targacept board of directors may elect to, among other things, attempt to complete another strategic transaction like the merger, attempt to sell or otherwise dispose of the various assets of Targacept or continue to operate the business of Targacept. If Targacept decides to dissolve and liquidate its assets, Targacept would be required to pay all of its debts and contractual obligations and to set aside certain reserves for potential future claims, and there can be no assurances as to the amount or timing of available cash left to distribute to stockholders after paying the debts and other obligations of Targacept and setting aside funds for reserves in the event of such a liquidation.

If Targacept were to continue its business, it would need to identify, acquire and develop other products or product candidates, as it has no current plans to, and does not believe it is in the best interest of Targacept to, pursue development of its current product candidates. In addition, as of July 15, 2015, the Targacept workforce was comprised of 10 employees, most of whom are involved in general and administrative roles. Targacept has only one employee currently engaged in development and regulatory activities. If Targacept decides to reestablish its business, Targacept will need to hire managerial and other personnel to lead and staff a variety of necessary functions, including in particular research, development and commercialization.

Q: Why are the two companies proposing to merge?

A: Catalyst and Targacept believe that the merger will result in a financially strong pharmaceutical company focused on harnessing the catalytic power of engineered human proteases to develop next-generation biopharmaceuticals addressing serious unmet needs in multiple high value indications. Catalyst and Targacept expect that the combined company will have the resources to advance its pipeline of protease therapeutics and three additional promising drug candidates through multiple important development milestones. For a discussion of Targacept's and Catalyst's reasons for the merger, please see the sections entitled "The Merger—Targacept Reasons for the Merger" beginning on page 73 and "The Merger—Catalyst Reasons for the Merger" beginning on page 75.

Q: How much cash will Targacept have at the closing of the merger?

A: Cash from Targacept remaining in the combined company is expected to be $35.0 million, and it is anticipated that Catalyst will have approximately $5.0 million of cash at the time of the closing. In addition, current Targacept stockholders will receive $37.0 million of non-interest bearing redeemable convertible notes as part of the Pre-Closing Dividend. The notes will be convertible into shares of the combined company's common stock at any time within 30 months after the closing of the merger at the noteholders' discretion. If the redeemable convertible notes are fully converted into common stock, an additional $37.0 million to be held in escrow would be made available to the combined company within the 30 months following closing.

Q: What is required to complete the merger?

A: To complete the merger, Targacept stockholders must approve the Merger Agreement and the issuance of Targacept common stock to Catalyst stockholders and redeemable convertible notes of Targacept to Targacept stockholders by virtue of the merger as contemplated by the Merger Agreement, the amendment to the restated certificate of incorporation of Targacept effecting the reverse stock split, and an amendment to the restated certificate of incorporation of Targacept to change Targacept's name to "Catalyst Biosciences, Inc.," and Catalyst stockholders must approve the merger.

The approval of the Merger Agreement and the issuance of shares of Targacept common stock and redeemable convertible notes requires the affirmative vote of the holders of a majority of the shares of Targacept common stock having voting power present in person or represented by proxy at the Targacept annual stockholders meeting. The approval of the reverse stock split and the change of Targacept's name requires the affirmative vote of the holders of a majority of the outstanding shares of Targacept common stock entitled to vote on the record date for the Targacept annual stockholders meeting. The approval of the reverse stock split is required in order to authorize Targacept's issuance of the shares of its common stock pursuant to the Merger Agreement and to maintain the listing of Targacept common stock on The NASDAQ Global Select Market. Each of these proposals is conditioned upon the approval of all other proposals required to complete the merger. Therefore, if the requisite number of stockholders of Targacept approve the Merger Agreement and the issuance of shares of Targacept common stock and redeemable convertible notes by virtue of the merger but do not approve the reverse stock split, the merger will not be completed.

The adoption of the Merger Agreement and the approval of the merger and related transactions by the stockholders of Catalyst requires the affirmative vote or action by written consent of (i) the holders of a

majority of the outstanding shares of Catalyst common stock and preferred stock, voting together as a single class on an as-converted to Catalyst common stock basis, and (ii) holders of at least 66 2/3% of the outstanding shares of Catalyst preferred stock voting together as a single class on an as-converted to Catalyst common stock basis. In addition to the requirement of obtaining such stockholder approvals and appropriate regulatory approvals, each of the other closing conditions set forth in the Merger Agreement must be satisfied or waived.

Certain Catalyst securityholders who, in the aggregate, own approximately 84% of the outstanding shares of Catalyst common stock on an as-converted to common stock basis, are parties to voting agreements with Targacept and Catalyst whereby the stockholders agreed to vote in favor of the adoption of the Merger Agreement. Also, certain Targacept securityholders who, in the aggregate, own approximately 41% of the outstanding shares of Targacept common stock, are parties to voting agreements with Targacept and Catalyst whereby the stockholders agreed to vote in favor of the issuance of Targacept common stock in the merger as contemplated by the Merger Agreement. In addition, pursuant to the Merger Agreement, following the registration statement on Form S-4, of which this proxy statement/prospectus/information statement is a part, being declared effective by the Securities and Exchange Commission, Catalyst stockholders who are party to the voting agreements will each execute written consents indicating their approval of the merger, adoption of the Merger Agreement and consent to Catalyst taking all actions necessary in connection therewith. Therefore, holders of a sufficient number of shares of Catalyst capital stock required to approve the merger and adopt the Merger Agreement, have agreed to do so via written consent.

For a more complete description of the closing conditions under the Merger Agreement, you are urged to read the section entitled “The Merger Agreement—Conditions to Completion of the Merger” beginning on page 132.

Q: Who will be the directors of Targacept following the completion of the merger?

A: Following the merger, the combined company’s directors will consist of three members of the current Targacept board of directors, namely John P. Richard, Errol B. De Souza, Ph.D. and Stephen A. Hill, M.D., and four members of the current Catalyst board of directors, namely Harold E. Selick, Ph.D., who will be the Chairman, Nassim Usman, Ph.D., Jeff Himawan, Ph.D., and Augustine Lawlor. The staggered structure of the current Targacept board of directors will remain in place for the combined company following the completion of the merger, provided that Dr. Hill will be re-appointed as a Class I director.

Pursuant to the terms of the Merger Agreement, it is anticipated the director classes of the combined company board of directors will be as follows:

- Class I directors (term ending 2016): Dr. Hill and Mr. Lawlor;
- Class II directors (term ending 2017): Mr. Richard and Dr. Himawan; and
- Class III directors (term ending 2018): Dr. De Souza, Dr. Selick and Dr. Usman.

Q: Who will be the executive officers of Targacept immediately following the completion of the merger?

A: Immediately following the completion of the merger, the executive management team of Targacept is expected to be composed solely of the members of Catalyst’s executive management team and will operate under the leadership of Nassim Usman, Ph.D., serving as the President and Chief Executive Officer of the combined company, Fletcher Payne serving as Chief Financial Officer, and Edwin Madison, Ph.D., serving as Chief Scientific Officer.

Q: What is the Pre-Closing Dividend?

A: Pursuant to the Merger Agreement, before the closing of the merger, Targacept expects to distribute pro-rata to its stockholders a Pre-Closing Dividend, consisting of $37.0 million in aggregate principal amount of

redeemable convertible notes and approximately $19.0 million in cash. At the option of the noteholders, the notes will be redeemable at any time within 30 months after the closing of the merger or convertible into shares of common stock of the combined company at a conversion rate of $9.19 per share, which represents 130% of the negotiated per-share value of Targacept's assets following the distribution of the Pre-Closing Dividend, as adjusted to reflect the planned 7-for-1 reverse stock split described elsewhere in this proxy statement/prospectus/information statement.

For a more complete description of the Pre-Closing Dividend, please see the section entitled "Agreements Related to the Merger—Pre-Closing Dividend" beginning on page 138.

Q: Am I entitled to appraisal rights?

A: Holders of Targacept common stock are not entitled to appraisal rights in connection with the merger.

Under the Delaware General Corporation Law, or Delaware Law, holders of Catalyst capital stock who deliver to Catalyst a written demand for appraisal within 20 days of [●], 2015, the date of mailing of this proxy statement/prospectus/information statement and who do not deliver their written consent approving the merger and adopting the Merger Agreement have the right to seek appraisal of the fair value of their shares as determined by the Delaware Court of Chancery if the merger is completed, but only if they comply with all requirements of Delaware law, which are summarized in this proxy statement/prospectus/information statement beginning on page 114. This appraisal amount could be more than, the same as, or less than the amount a Catalyst stockholder would be entitled to receive under the Merger Agreement. Any holder of Catalyst capital stock intending to exercise appraisal rights must, among other things, submit a written demand for appraisal to Catalyst within 20 days of [●], 2015, the date of mailing of this proxy statement/prospectus/information statement, not approve the Merger Agreement or the transactions contemplated thereunder, and not submit a letter of transmittal. Failure to follow exactly the procedures specified under Delaware law will result in the loss of appraisal rights. Because of the complexity of the Delaware law relating to appraisal rights, if you are considering exercising your appraisal rights, you are encouraged to seek the advice of your own legal counsel.

Q: What are the material U.S. federal income tax consequences of the merger to Catalyst stockholders?

A: Targacept and Catalyst intend the merger to qualify as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code of 1986, as amended, or the Code. Assuming the merger qualifies as a reorganization under the Code, then, in general, the material tax consequences to each Catalyst stockholder will be as follows:

- Each Catalyst stockholder will not recognize gain or loss upon the exchange of Catalyst common stock for Targacept common stock pursuant to the merger, except to the extent of cash received in lieu of a fractional share of Targacept common stock as described below; and
- Each Catalyst stockholder will recognize gain or loss to the extent any cash received in lieu of a fractional share of Targacept common stock exceeds or is less than the basis of such fractional share.

If the merger is not a reorganization under Section 368(a) of the Code, then, subject to the limitations and qualifications described in "The Merger—Material U.S. Federal Income Tax Consequences of the Merger to Holders of Catalyst Common Stock" beginning on page 99, each Catalyst stockholder will generally recognize gain or loss, for U.S. federal income tax purposes, on the receipt of shares of Targacept common stock issued to such Catalyst stockholder in connection with the merger to the extent that the value of the shares of Targacept common stock received exceeds or is less than the basis such stockholder had in the shares of Catalyst stock surrendered.

Tax matters are very complicated, and the tax consequences of the merger to a particular Catalyst stockholder will depend on such stockholder's circumstances. Accordingly, you should consult your tax advisor for a full understanding of the tax consequences of the merger to you, including the applicability and

effect of federal, state, local and foreign income and other tax laws. For more information, please see the section entitled "The Merger—Material U.S. Federal Income Tax Consequences of the Merger to Holders of Catalyst Common Stock" beginning on page 99.

Q: What are the material U.S. federal income tax consequences of the merger and the Pre-Closing Dividend to Targacept stockholders?

A: Since Targacept stockholders will continue to own and hold their existing shares of Targacept common stock following the merger, the merger generally will not result in U.S. federal income tax consequences to Targacept shareholders.

For U.S. federal income tax purposes, Targacept intends to treat the Pre-Closing Dividend as a distribution to the recipients on the date the Pre-Closing Dividend is paid, or the Pre-Closing Dividend Date. For U.S. federal income tax purposes, such distribution may be a dividend subject to withholding, return of basis and/or gain from the disposition of Targacept stock, depending in part on the current earnings and profits of Targacept as calculated under U.S. federal income tax principles. Targacept expects that it will not have current or accumulated earnings and profits for its current taxable year (which will end in connection with the merger), but it is possible that, contrary to expectations, Targacept will have current earnings and profits for its current taxable year. If there are current or accumulated earnings and profits, the Pre-Closing Dividend will generally be treated as a dividend to the extent of such amount. Dividends received by individual U.S. holders of Targacept common stock generally should qualify for reduced tax rates so long as certain holding period requirements are met. Dividends received by corporate holders may be eligible for the dividends received deduction if the U.S. holder of Targacept common stock is an otherwise qualifying corporate holder that meets the holding period and certain other requirements for the dividends received deduction. Targacept will not be able to make this determination until after the Pre-Closing Dividend Date. Once the determination is made, Targacept will post its determination regarding its earnings and profits for U.S. federal income tax purposes on its website or otherwise inform its shareholders of its determination.

Tax matters are very complicated and the tax consequences of the Pre-Closing Dividend to a particular Targacept stockholder will depend on such stockholder's circumstances. Accordingly, you should consult your tax advisor for a full understanding of the tax consequences of the merger, pre-closing dividend and reverse stock split to you, including the applicability and effect of federal, state, local and foreign income and other tax laws. For more information, please see the section entitled "The Merger—Material U.S. Federal Income Tax Consequences of the Pre-Closing Dividend to Holders of Targacept Common Stock" beginning on page 101.

Q: What are the material U.S. federal income tax consequences to Targacept shareholders of holding the redeemable convertible notes received as part of the pre-closing dividend?

A: Targacept intends to treat the notes as issued with "original issue discount" for U.S. federal income tax purposes, even though they do not pay stated interest, and holders will be required to include the original issue discount in gross income on a constant yield to maturity basis. Generally, for U.S. federal income tax purposes, a holder will not recognize any income, gain or loss upon conversion of a note into common stock. A redemption of a note will generally be treated as a taxable sale of a note for U.S. federal income tax purposes. For more information, please see the section entitled "The Merger—Material U.S. Federal Income Tax Consequences of the Ownership of the Redeemable Convertible Notes" beginning on page 107.

Q: Do persons involved in the merger have interests that may conflict with mine as a Targacept stockholder?

A: Yes. When considering the recommendation of the Targacept board of directors you should be aware that certain members of the Targacept board of directors and executive officers of Targacept have interests in the merger that may be different from, or in addition to, interests they may have as Targacept stockholders. The Targacept board of directors was aware of these interests and considered them, among other matters, in its

decision to approve the Merger Agreement. Upon a termination of employment in connection with the merger, Targacept's executive officers may receive cash severance payments and other benefits with a total value of approximately $2.8 million (collectively, not individually, and excluding the value of any accelerated vesting of stock options). In addition, the closing of the merger will result in the acceleration of vesting of stock options to purchase approximately 635,275 shares of Targacept common stock and the acceleration of vesting of 395,000 shares of stock awards held by the Targacept executive officers and directors, before giving effect to the proposed reverse stock split, and assuming no continuation of employment with the combined company by the current executive officers of Targacept. In addition, John P. Richard and Errol B. De Souza, Ph.D., current directors of Targacept, and Dr. Stephen A. Hill, current President and Chief Executive Officer and a director of Targacept, have been designated to serve on the board of directors of the combined company following the completion of the merger.

Q: Do persons involved in the merger have interests that may conflict with mine as a Catalyst stockholder?

A: Yes. When considering the recommendation of the Catalyst board of directors with respect to consenting to the adoption of the Merger Agreement and the approval of the merger and related transactions, you should be aware that certain members of the board of directors and executive officers of Catalyst have interests in the merger that may be different from, or in addition to, interests they may have as Catalyst stockholders. The Catalyst board of directors was aware of these interests and considered them, among other matters, in its decision to approve the Merger Agreement. Prior to the closing of the merger, shares of convertible preferred stock held by certain of Catalyst's directors, executive officers and affiliates of Catalyst's directors will convert into shares of Catalyst common stock. In addition, upon the closing of the merger, options to purchase approximately 4,394,022 shares of Catalyst common stock held by Catalyst's executive officers and directors as of May 15, 2015 will convert into options to purchase a number of shares of Targacept common stock determined by the Exchange Ratio, rounding any resulting fractional shares down to the nearest whole share, and will also result in the accelerated vesting of stock options held by Fletcher Payne. Moreover, Nassim Usman, Ph.D., Fletcher Payne and Edwin Madison, Ph.D., all currently executive officers of Catalyst, are expected to become executive officers of the combined company upon the closing of the merger, with Dr. Usman serving as President and Chief Executive Officer, Mr. Payne serving as Chief Financial Officer and Dr. Madison serving as Chief Scientific Officer. Harold E. Selick, Ph.D., Nassim Usman, Ph.D., Jeff Himawan, Ph.D., and Augustine Lawlor, all currently directors of Catalyst, have been designated to serve on the board of directors of the combined company following the completion of the merger.

Q: As a Targacept stockholder, how does the Targacept board of directors recommend that I vote?

A: After careful consideration, the Targacept board of directors unanimously recommends that Targacept stockholders vote "FOR" Proposal Nos. 1 through 9. For a detailed description of each of Proposal Nos. 1 through 9, see the section entitled "Matters Being Submitted to a Vote of Targacept Stockholders" beginning on page 176.

Q: As a Catalyst stockholder, how does the Catalyst board of directors recommend that I vote?

A: After careful consideration, the Catalyst board of directors recommends that Catalyst stockholders execute and return an action by written consent indicating their approval of the merger, adoption of the Merger Agreement and consent to Catalyst taking all actions necessary in connection therewith.

Q: What risks should I consider in deciding whether to vote in favor of the merger or to execute and return the written consent, as applicable?

A: You should carefully review the section of this proxy statement/prospectus/information statement entitled "Risk Factors," beginning on page 18, which sets forth certain risks and uncertainties related to the merger,

risks and uncertainties to which the combined company's business will be subject, and risks and uncertainties to which each of Targacept and Catalyst, as an independent company, is subject.

Q: What is "golden parachute" compensation and why I am being asked to vote on it?

A: The Securities and Exchange Commission, or SEC, has adopted rules that require Targacept to seek an advisory (non-binding) vote on "golden parachute" compensation. "Golden parachute" compensation is compensation that is tied to or based on the merger and that will or may be paid by Targacept to its named executive officers in connection with the merger.

Q: When do you expect the merger to be completed?

A: Targacept and Catalyst anticipate that the merger will occur soon after the Targacept annual stockholders meeting to be held on [●], 2015, but Targacept cannot predict the exact timing. For more information, please see the section entitled "The Merger Agreement—Conditions to Completion of the Merger" beginning on page 132.

Q: Do I need to send in my Catalyst stock certificates now?

A: No. You should not send in your Catalyst stock certificates now. Promptly after the effective time of the merger, the exchange agent will provide stock certificate transmittal materials to the holders of Catalyst capital stock. The transmittal materials will contain instructions for surrendering Catalyst stock certificates to the exchange agent in exchange for the merger consideration.

You bear the risk of delivery and should send your letter of transmittal by courier, by hand or by fax, with stock certificates delivered by courier or by hand, to the appropriate addresses shown on the letter of transmittal.

Q: What do I need to do now?

A: Targacept and Catalyst urge you to read this proxy statement/prospectus/information statement carefully, including its annexes, and to consider how the merger affects you.

If you are a stockholder of Targacept, you may provide your proxy instructions by mailing your signed proxy card in the enclosed return envelope. Please provide your proxy instructions only once, unless you are revoking a previously delivered proxy instruction, and as soon as possible so that your shares can be voted at the Targacept annual stockholders meeting.

If you are a stockholder of Catalyst, you may execute and return your written consent to Catalyst in accordance with the instructions provided.

Q: What happens if I do not return a proxy card or an executed written consent, as applicable?

A: If you are a Targacept stockholder, the failure to return your proxy card or otherwise provide proxy instructions will have the same effect as voting against Targacept Proposal Nos. 2 and 3, but, assuming a quorum is present, a failure to return your proxy card or otherwise provide proxy instruction will have no effect on the outcome of Targacept Proposal Nos. 1, 4, 5, 6, 7, 8 and 9. If you are a Catalyst stockholder, the failure to return an executed written consent will have the same effect as voting against the merger.

Q: What happens if I abstain?

A: Shares abstaining from voting on a matter will be counted for the purpose of determining whether a quorum exists for the Targacept annual stockholders meeting, but are treated as having not voted. Abstentions will have the same effect as voting against Targacept Proposal Nos. 2 and 3, but will have no impact on the outcome of the vote for Targacept's Proposal Nos. 1, 4, 5, 6, 7, 8 and 9.

Q: May I vote in person at the Targacept annual stockholders meeting?

A: If your shares of Targacept common stock are registered directly in your name with the Targacept transfer agent, you are considered to be the stockholder of record with respect to those shares, and the proxy materials and proxy card are being sent directly to you by Targacept. If you are a Targacept stockholder of record, you may attend the Targacept annual stockholders meeting and vote your shares in person. Even if you plan to attend the Targacept annual stockholders meeting in person, Targacept requests that you sign and return the enclosed proxy to ensure that your shares will be represented at the Targacept annual stockholders meeting if you are unable to attend. If your shares of Targacept common stock are held in a brokerage account or by another nominee, you are considered the beneficial owner of shares held in "street name," and the proxy materials are being forwarded to you by your broker or other nominee together with a voting instruction card. As the beneficial owner, you are also invited to attend the Targacept annual stockholders meeting. Because a beneficial owner is not the stockholder of record, you may not vote these shares in person at the Targacept annual stockholders meeting unless you obtain a proxy from the broker, trustee or nominee that holds your shares, giving you the right to vote the shares at the meeting.

Q: If my Targacept shares are held in "street name" by my broker, will my broker vote my shares for me?

A: Unless your broker has discretionary authority to vote on certain matters, your broker will not be able to vote your shares of Targacept common stock without instructions from you. Brokers are not expected to have discretionary authority to vote for Targacept Proposal Nos. 1, 2, 3, 4, 5, 6, 7 or 9. To make sure that your vote is counted, you should instruct your broker to vote your shares, following the procedures provided by your broker.

Q: When and where is the Targacept annual stockholders meeting being held?

A: The Targacept annual stockholders meeting will be held at [●], at [●], local time, on [●], 2015. Subject to space availability, all Targacept stockholders as of the record date, or their duly appointed proxies, may attend the meeting. Since seating is limited, admission to the meeting will be on a first-come, first-served basis.

Q: May I change my vote after I have submitted a proxy or provided proxy instructions?

A: Targacept stockholders of record, other than those Targacept stockholders who are parties to voting agreements, may revoke their proxy at any time before their proxy is voted at the Targacept annual stockholders meeting in one of three ways. First, a stockholder of record of Targacept can send a written notice to the Secretary of Targacept stating that it would like to revoke its proxy. Second, a stockholder of record of Targacept can submit new proxy instructions on a new proxy card. Third, a stockholder of record of Targacept can attend the Targacept annual stockholders meeting and vote in person. Attendance alone will not revoke a proxy. If a Targacept stockholder of record or a stockholder who owns Targacept shares in "street name" has instructed a broker to vote its shares of Targacept common stock, the stockholder must follow directions received from its broker to change those instructions.

Q: Who is paying for this proxy solicitation?

A: Each of Targacept and Catalyst will bear its own expenses in printing and filing this proxy statement/prospectus/information statement and the proxy card. Arrangements will also be made with brokerage firms and other custodians, nominees and fiduciaries who are record holders of Targacept common stock for the forwarding of solicitation materials to the beneficial owners of Targacept common stock. Targacept will reimburse the brokers, custodians, nominees and fiduciaries for the reasonable out-of-pocket expenses they incur in connection with the forwarding of solicitation materials to beneficial owners of Targacept common stock.

Q: Who can help answer my questions?

A: If you are a Targacept stockholder and would like additional copies, without charge, of this proxy statement/prospectus/information statement or if you have questions about the merger, including the procedures for voting your shares, you should contact:

Targacept, Inc.
100 North Main St, Suite 1510
Winston-Salem, North Carolina 27101
Tel: (336) 480-2100
Attn: Patrick Rock, General Counsel
patrick.rock@targacept.com

If you are a Catalyst stockholder and would like additional copies, without charge, of this proxy statement/prospectus/information statement or if you have questions about the merger, including the procedures for voting your shares, you should contact:

Catalyst Biosciences, Inc.
260 Littlefield Avenue
South San Francisco, CA 94080
Tel: (630) 871-0761
Attn: Fletcher Payne
fpayne@catbio.com

PROSPECTUS SUMMARY

This summary highlights selected information from this proxy statement/prospectus/information statement and may not contain all of the information that is important to you. To better understand the merger, the proposals being considered at the Targacept annual stockholders meeting and the Catalyst stockholder actions that are the subject of the written consent, you should read this entire proxy statement/prospectus/information statement carefully, including the Merger Agreement attached as Annex A, the opinion of Stifel, Nicolaus & Company, Incorporated attached as Annex B and the other annexes to which you are referred herein. For more information, please see the section entitled "Where You Can Find More Information" beginning on page 325.

The Companies

Targacept, Inc.

100 North Main Street, Suite 1510
Winston-Salem, North Carolina 27101
(336) 480-2100

Targacept, Inc., or Targacept, is a biopharmaceutical company that historically has been engaged in the development of novel NNR Therapeutics™ to treat patients suffering from serious nervous system and gastrointestinal/genitourinary diseases and disorders. Targacept's NNR Therapeutics selectively target a class of receptors known as neuronal nicotinic receptors, which Targacept refers to as NNRs. NNRs are found on nerve cells throughout the nervous system and serve as key regulators of nervous system activity.

Catalyst Biosciences, Inc.

260 Littlefield Avenue
South San Francisco, CA 94080
(650) 871-0761

Catalyst is a clinical-stage biopharmaceutical company focused on creating and developing novel products based on engineered human proteases. Catalyst is developing engineered human proteases to address serious unmet medical needs in multiple high value indications. To date, Catalyst has focused its product development efforts in the following areas:

- **Hemostasis**—treatment of hemophilia and surgical bleeding using long acting and potent variants of proteases that promote blood clotting, including coagulation Factors VIIa, IX and Xa.
- **Inflammation**—prevention of delayed graft function, or DGF, in renal transplants and the treatment of dry age-related macular degeneration, or dry AMD, a condition that can cause visual impairment or blindness, using novel proteases that cleave complement factor C3, or C3.

Catalyst's most advanced program is an improved next-generation coagulation Factor VIIa variant, CB 813d/PF-05280602, which has completed a Phase 1 clinical trial evaluating safety and tolerability as well as pharmacokinetics, pharmacodynamics and coagulation activity in severe hemophilia A and B patients. Pfizer conducted the Phase 1 clinical trial of CB 813d/PF-05280602 pursuant to a research and license agreement, which Pfizer terminated effective June 1, 2015. To Catalyst's knowledge, such termination was the result of an internal review of products in development at Pfizer. Annual worldwide sales in 2014 for currently approved Factor VIIa products were approximately $1.5 billion. In addition to Catalyst's lead Factor VIIa program, Catalyst has two other next-generation coagulation factors, a Factor IX variant, CB 2679d/ISU 304, that is in advanced preclinical development, and a Factor Xa variant. Annual worldwide sales in 2014 for currently approved Factor IX and Factor Xa-containing products were approximately $1.8 billion. Catalyst seeks to develop these three product candidates to form the basis of a hemostasis franchise.

Catalyst is also developing novel proteases that inhibit inflammation and tissue damage by cleaving certain components of the complement cascade, initially focused on complement factor C3 (C3). Catalyst has created and characterized a development candidate for the treatment of DGF in kidney transplants and discovered lead candidates for the potential treatment of dry AMD.

With drug candidates in clinical and advanced preclinical development across a range of diseases, Catalyst is a leader in the field of engineered protease biopharmaceuticals. Catalyst has assembled an experienced management team, world-class scientists and advisors, strong strategic collaborators, an enabling technology platform, and a leading intellectual property position to advance its clinical and preclinical pipeline.

Talos Merger Sub, Inc.

Talos Merger Sub, Inc., or the Merger Sub, is a wholly owned subsidiary of Targacept, and was formed solely for the purposes of carrying out the merger.

The Merger (see page 59)

If the merger is completed, Merger Sub will merge with and into Catalyst, with Catalyst surviving as a wholly owned subsidiary of Targacept.

At the effective time of the merger, each outstanding share of common stock of Catalyst will be converted into the right to receive that number of shares of Targacept common stock, if any, as determined pursuant to the Exchange Ratio described in the Merger Agreement. At the effective time of the merger, each outstanding option and warrant, whether or not vested, to purchase shares of Catalyst common stock unexercised immediately prior to the effective time of the merger will be converted into an option or warrant to purchase shares of Targacept common stock. All rights with respect to each Catalyst option or warrant will be assumed by Targacept in accordance with its terms. Accordingly, from and after the effective time of the merger, each option or warrant assumed by Targacept may be exercised solely for shares of Targacept common stock.

Following the completion of the transactions contemplated by the Merger Agreement, the current equityholders of Catalyst and current equityholders of Targacept are expected to own 58% and 42% of the combined company, respectively, subject to a downward or upward adjustment in Catalyst's percentage ownership if Catalyst has an amount of net cash as of a certain determination date prior to the effective time of less than or greater than a target of $5.0 million, respectively, provided that the measurement amount of net cash used to determine such adjustment will be reduced by $150,000 for each week after July 29, 2015 until the merger is completed.

Each share of Targacept common stock issued and outstanding at the time of the merger will remain issued and outstanding and those shares will be unaffected by the merger. Targacept stock options and other equity awards that are vested and unexercised immediately prior to the effective time of the merger will also remain outstanding and be unaffected by the merger, provided that there will be an adjustment to such options and equity awards relating to the Pre-Closing Dividend. Please see "The Merger—Stock Options and Warrants" beginning on page 96.

For a more complete description of the merger Exchange Ratio, please see the section entitled "The Merger Agreement—Exchange Ratio" beginning on page 119.

The merger will be completed as promptly as practicable after all of the conditions to completion of the merger are satisfied or waived, including the approval of the stockholders of Targacept and Catalyst. Targacept and Catalyst are working to complete the merger as quickly as practicable. However, Targacept and Catalyst cannot predict the exact timing of the completion of the merger because it is subject to various conditions. After completion of the merger, assuming that Targacept receives the required stockholder approval of Targacept Proposal No. 3, Targacept will be renamed "Catalyst Biosciences, Inc."

Reasons for the Merger (see pages 73 and 75)

Following the merger, the combined company will focus on the discovery and development of novel biopharmaceutical products based on engineered human proteases. Catalyst's most advanced drug candidate is CB 813d/PF-05280602, a pro-coagulant for the treatment of hemophilia and surgical bleeding. Catalyst plans to initiate a clinical efficacy trial for CB 813d/PF-05280602 in 2016.

Targacept and Catalyst believe that the combined company will have the following potential advantages:

- A pipeline of protease therapeutics including CB 813d/PF-05280602, an engineered Factor VIIa (FVIIa) drug candidate that completed a Phase 1 clinical trial evaluating safety and tolerability as well as pharmacokinetics, pharmacodynamics and coagulation activity. CB 813d/PF-05280602 is designed to address an established approximately $1.5 billion hemophilia market by potentially enabling lower and fewer doses of an engineered Factor VIIa to control bleeding episodes and to potentially achieve effective prophylaxis in hemophilia inhibitor patients;
- Three additional promising drug candidates, including: CB 2679d/ISU 304, an improved Factor IX for hemophilia B and two novel proteases for the treatment of complement mediated disorders, as well as a promising drug lead in an engineered Factor Xa that can potentially be used for both hemophilia and the control of bleeding in non-hemophilia patients;
- Immediate committed capital to the combined entity expected to include cash and cash equivalents of approximately $40 million at the closing of the transaction.

Each of the board of directors of Targacept and Catalyst also considered other reasons for the merger, as described herein. For example, the board of directors of Targacept considered, among other things:

- unsuccessful results of the most recent clinical trials with Targacept's NNR Therapeutics;
- the strategic alternatives of Targacept to the merger, including licensing opportunities and discussions that Targacept management and the Targacept board of directors previously conducted with other potential merger partners;
- the risks associated with, and uncertain value and costs to stockholders of, liquidating Targacept;
- the risks of continuing to operate Targacept on a stand-alone basis, including the need to rebuild infrastructure and management to continue its operations;
- the opportunity as a result of the merger for Targacept stockholders to participate in the value of the Catalyst product candidate portfolio; and
- a Pre-Closing Dividend to Targacept stockholders prior to closing of approximately $19.0 million in cash and $37.0 million in aggregate principal amount of redeemable convertible notes, which provides the potential for additional future capital investment in the combined company.

In addition, the board of directors of Catalyst approved the merger based on a number of factors, including the following:

- the potential for increased access to sources of capital and a broader range of investors to support the clinical development of its clinical stage products than it could otherwise obtain if it continued to operate as a privately held company;
- the potential to provide its current stockholders with greater liquidity by owning stock in a public company;
- the board's belief that no alternatives to the merger were reasonably likely to create greater value for Catalyst's stockholders after reviewing the various strategic options to enhance stockholder value that were considered by Catalyst's board;

- the cash resources of the combined company expected to be available at the closing of the merger; and
- the expectation that the merger will be treated as a reorganization for U.S. federal income tax purposes, with the result that the Catalyst stockholders will generally not recognize taxable gain or loss for U.S. federal income tax purposes.

Opinion of the Targacept Financial Advisor (see page 77)

Stifel, Nicolaus & Company, Incorporated, or Stifel, the financial advisor of Targacept, delivered to the board of directors of Targacept a written opinion dated May 13, 2015, addressed to the board of directors of Targacept, as of that date and subject to and based on the assumptions made, procedures followed, matters considered, limitations of the review undertaken and qualifications contained in the written opinion, as to the fairness, from a financial point of view, to Targacept of the merger consideration to be paid by Targacept in the merger pursuant to the Merger Agreement, as amended. The full text of this written opinion to the Targacept board of directors, which describes, among other things, the assumptions made, procedures followed, factors considered, qualifications and limitations on the review undertaken, is attached as Annex B to this proxy statement/prospectus/information statement and is incorporated by reference in its entirety. Holders of Targacept common stock are encouraged to read the opinion carefully in its entirety. **The Stifel opinion was provided to the board of directors of Targacept in connection with its evaluation of the consideration provided for in the merger. It does not address any other aspect of the proposed merger or any alternative to the merger and does not constitute a recommendation as to how any stockholders of Targacept or Catalyst should vote or act in connection with the merger or otherwise.**

Overview of the Merger Agreement

Merger Consideration and Exchange Ratio (see page 118)

Prior to the closing, each share of Catalyst preferred stock outstanding at the time will be converted into shares of Catalyst common stock at a ratio determined in accordance with the Catalyst certificate of incorporation then in effect. At the effective time of the merger:

- each share of Catalyst common stock outstanding immediately prior to the effective time of the merger will automatically be converted into the right to receive a number of shares of Targacept common stock at a rate per share equal to the Exchange Ratio;
- each option to purchase shares of Catalyst common stock outstanding and unexercised immediately prior to the effective time of the merger will be assumed by Targacept and will become an option to purchase shares of Targacept common stock, with the number of shares and exercise price being adjusted by the Exchange Ratio; and
- each warrant to purchase shares of Catalyst preferred stock outstanding and not terminated or exercised immediately prior to the effective time of the merger will be assumed by Targacept and will become a warrant to purchase shares of Targacept common stock, with the number of shares and exercise price being adjusted by the Exchange Ratio.

Based on shares of Catalyst and Targacept capital stock anticipated to be outstanding as of the closing of the merger, assuming no future issuances of Targacept capital stock prior to the closing of the merger and assuming that Catalyst's net cash at closing reaches the applicable target, subject to adjustment to account for the reverse stock split and for the payment of cash in lieu of fractional shares, the exchange ratio in the merger would be within the range of approximately 0.24—0.30. As a result, following the completion of the merger, Catalyst's equity holders would own in the aggregate approximately 58% of the combined company's outstanding common stock (assuming full exercise of outstanding options and warrants, whether vested or unvested) and Targacept's equity holders would own in the aggregate approximately 42% of the combined company's outstanding common stock (assuming full exercise of outstanding options and warrants, whether vested or unvested).

The Merger Agreement does not include a price-based termination right, and there will be no adjustment to the Exchange Ratio (or, as a result, the number of shares of Targacept common stock that Catalyst stockholders will be entitled to receive) due to changes in the market price of Targacept common stock. Accordingly, the market value of the shares of Targacept common stock issued pursuant to the merger will depend on the market value of the shares of Targacept common stock at the time the merger closes, and could vary significantly from the market value on the date of this proxy statement/prospectus/information statement.

Treatment of Catalyst Stock Options and Warrants (see page 96)

At the effective time of the merger, each outstanding option and warrant, whether or not vested, to purchase shares of Catalyst common stock unexercised immediately prior to the effective time of the merger will be converted into an option or warrant to purchase shares of Targacept common stock. All rights with respect to each Catalyst option or warrant will be assumed by Targacept in accordance with its terms. Accordingly, from and after the effective time of the merger each option or warrant assumed by Targacept may be exercised solely for shares of Targacept common stock.

The number of shares of Targacept common stock subject to each outstanding Catalyst option or warrant assumed by Targacept will be determined by multiplying the number of shares of Catalyst common stock that were subject to such option or warrant, as applicable, by the Exchange Ratio and rounding the resulting number down to the nearest whole number of shares of Targacept common stock. The per share exercise price for the shares of Targacept common stock issuable upon exercise of each Catalyst option or warrant assumed by Targacept will be determined by dividing the per share exercise price of Catalyst common stock subject to such option or warrant, as applicable, by the Exchange Ratio and rounding the resulting exercise price up to the nearest whole cent. Any restriction on the exercise of any option or warrant will continue in full force and effect and the term, exercisability, vesting schedule and other provisions of such option will, subject to certain exceptions set forth in the Merger Agreement, otherwise remain unchanged. Likewise, any restriction on any warrant assumed by Targacept will continue in full force and effect and the term, exercisability, vesting schedule and other provisions of such warrant will, subject to certain exceptions set forth in the Merger Agreement, otherwise remain unchanged.

Conditions to Completion of the Merger (see page 132)

To complete the merger, Targacept stockholders must approve the Merger Agreement and the issuance of shares of Targacept common stock to Catalyst stockholders and the issuance of redeemable convertible notes of Targacept to Targacept stockholders by virtue of the merger contemplated by the Merger Agreement, and, if deemed necessary, the restated certificate of incorporation of Targacept effecting the proposed reverse stock split, and an amendment to the restated certificate of incorporation effecting a change of the Targacept name to “Catalyst Biosciences, Inc.” Additionally, the Catalyst stockholders must approve the merger and adopt the Merger Agreement. In addition to obtaining such stockholder approvals and appropriate regulatory approvals, each of the other closing conditions set forth in the Merger Agreement must be satisfied or waived.

No Solicitation (see page 127)

The Merger Agreement contains provisions prohibiting Targacept and Catalyst from seeking a competing transaction, subject to specified exceptions described in the Merger Agreement. Under these “no solicitation” provisions, each of Targacept and Catalyst has agreed that neither it nor its subsidiaries, nor any of its officers, directors, employees, representatives, affiliates, advisors or agents will directly or indirectly:

- initiate, solicit, seek or knowingly encourage or support any inquiries, proposals or offers that constitute or may reasonably be expected to lead to any competing proposal;

- engage or participate in, or knowingly facilitate, any discussions or negotiations regarding, or furnish any nonpublic information to any person in connection with, any inquiries, proposals or offers that constitute, or may reasonably be expected to lead to, a competing proposal;
- enter into any letter of intent, agreement in principle or other similar type of agreement relating to a competing proposal, or enter into any agreement or agreement in principle requiring either Targacept or Catalyst, as the case may be, to abandon, terminate or fail to complete the merger; or
- resolve, propose or agree to do any of the foregoing.

Termination of the Merger Agreement (see page 134)

Either Targacept or Catalyst can terminate the Merger Agreement under certain circumstances, which would prevent the merger from being completed.

Termination Fee (see page 134)

The Merger Agreement provides that, upon termination of the Merger Agreement under specified circumstances, Targacept may be required to pay Catalyst a termination fee of $3.22 million or up to $1.25 million in expense reimbursements, or Catalyst may be required to pay Targacept a termination fee of $2.275 million.

Voting Agreements (see page 137)

In connection with the execution of the Merger Agreement, certain stockholders of Catalyst entered into voting agreements with Targacept and Catalyst under which such stockholders have agreed to vote in favor of the merger and against any alternative acquisition proposal, agreement or transaction. As of July 15, 2015, these entities collectively beneficially own or control approximately 84% of the voting power of Catalyst on an as-converted to common stock basis and 89% of the voting power of Catalyst preferred stock on an as-converted to common stock basis. These voting agreements grant Targacept irrevocable proxies to vote or give consent with respect to any shares of Catalyst stock over which such stockholder has voting power in favor of each of the Catalyst proposals described elsewhere in this proxy statement/prospectus/information statement and against any alternative acquisition proposal, agreement or transaction.

In connection with the execution of the Merger Agreement, certain stockholders of Targacept, who collectively beneficially own or control approximately 42% of Targacept's outstanding common stock as of July 15, 2015, also entered into voting agreements with Targacept and Catalyst under which such stockholder has agreed to vote in favor of the Targacept proposals that relate to the merger described elsewhere in this proxy statement/prospectus/information statement and against any alternative acquisition proposal, agreement or transaction. Each of these voting agreements grant Catalyst irrevocable proxies to vote any shares of Targacept stock over which such stockholder has voting power in favor of each of the Targacept proposals described elsewhere in this proxy statement/prospectus/information statement and against any alternative acquisition proposal, agreement or transaction.

Each stockholder executing a voting agreement has made representations and warranties to Targacept and Catalyst regarding ownership and unencumbered title to the shares thereto, such stockholder's power and authority to execute the voting agreement, and due execution and enforceability of the voting agreement. Unless otherwise waived, all of these voting agreements prohibit the sale, assignment, transfer or other disposition by the stockholder of their respective shares of Targacept or Catalyst stock, or the entrance into an agreement or commitment to do any of the foregoing, except for transfers by will or by operation of law, in which case the voting agreement will bind the transferee. Each stockholder executing a voting agreement has also waived its statutory appraisal rights in connection with the merger.

The voting agreements will terminate at the earlier of the effective time of the merger, termination of the Merger Agreement in accordance with its terms or upon mutual written consent of such stockholder, Targacept and Catalyst.

Lock-up Agreements (see page 137)

As a condition to the closing of the merger, the Catalyst securityholders who entered into voting agreements also entered into lock-up agreements, pursuant to which the securityholders have agreed not to, except in limited circumstances, sell, assign, transfer, tender, or otherwise dispose of, any Catalyst securities and shares of Targacept common stock, including, as applicable, shares received in the merger and issuable upon exercise of certain warrants and options, from the effective date of the merger until 120 days after the closing date of the merger.

The Catalyst stockholders who have executed lock-up agreements as of July 15, 2015 owned in the aggregate approximately 84% of the outstanding shares of Catalyst stock on an as-converted to common stock basis.

Pre-Closing Dividend (see page 138)

Prior to the closing of the merger but following such time as a determination of the net cash of Targacept has been made, Targacept plans to declare a dividend, pro rata to its stockholders as of the record date for such dividend. Such dividend will consist of $37.0 million in aggregate principal amount of redeemable convertible notes and approximately $19.0 million in cash, collectively the Pre-Closing Dividend. The date on which the Pre-Closing Dividend is paid is referred to as the Pre-Closing Dividend Date. At the option of the noteholders, the notes will be redeemable at any time within 30 months of the closing of the merger or convertible into shares of common stock of the combined company at a conversion rate of $9.19 per share, which represents 130% of the negotiated per-share value of Targacept's assets following the anticipated Pre-Closing Dividend, as adjusted to reflect the planned 7-for-1 reverse stock split described elsewhere in this proxy statement/prospectus/information statement.

Management Following the Merger (see page 272)

Effective as of the closing of the merger, Targacept's executive officers are expected to be composed solely of the members of the Catalyst executive management team prior to the merger and will operate under the leadership of Nassim Usman, Ph.D. serving as the President and Chief Executive Officer, Fletcher Payne serving as Chief Financial Officer and Edwin Madison, Ph.D. serving as Chief Scientific Officer.

Interests of Certain Directors, Officers and Affiliates of Targacept and Catalyst (see pages 87 and 92)

In considering the recommendation of the Targacept board of directors with respect to issuing shares of Targacept common stock pursuant to the Merger Agreement and the other matters to be acted upon by Targacept stockholders at the Targacept annual meeting, Targacept stockholders should be aware that certain members of the Targacept board of directors and executive officers of Targacept have interests in the merger that may be different from, or in addition to, interests they have as Targacept stockholders. For example, Targacept has entered into certain employment and severance benefits agreements with its executive officers that may result in the receipt by such executive officers of cash severance payments and other benefits with a total value of approximately $2.8 million (collectively, not individually, and excluding the value of any accelerated vesting of stock options). In addition, the closing of the merger will result in the acceleration of vesting of stock options to purchase approximately 635,275 shares of Targacept common stock and the acceleration of vesting of 395,000 shares of stock awards held by the Targacept executive officers and directors, before giving effect to the proposed reverse stock split, and assuming no continuation of employment with the combined company by the current executive officers of Targacept. In addition, John P. Richard and Errol B. De Souza, Ph.D., current directors of Targacept, and Dr. Stephen A. Hill, current President and Chief Executive Officer and a director of Targacept, have been designated to serve on the board of directors of the combined company following the completion of the merger.

The affirmative vote of the holders of a majority of the shares of Targacept common stock having voting power present in person or represented by proxy at the Targacept annual meeting is required for approval of Targacept Proposal No. 1. The affirmative vote of the holders of a majority of shares of Targacept common stock having voting power outstanding on the record date for the Targacept annual meeting is required for approval of Targacept Proposal Nos. 2 and 3. Each of Proposal Nos. 1, 2 and 3 are conditioned upon each other and the approval of each such proposal is a condition to the completion of the merger. Certain Targacept officers and directors, and their affiliates, also entered into voting agreements in connection with the merger. The voting agreements are discussed in greater detail in the section entitled "Agreements Related to the Merger—Voting Agreements" beginning on page 137.

In considering the recommendation of the Catalyst board of directors with respect to consenting to the adoption of the Merger Agreement and the approval of the merger and related transactions, Catalyst stockholders should be aware that certain members of the board of directors and executive officers of Catalyst have interests in the merger that may be different from, or in addition to, interests they have as Catalyst stockholders. For example, Catalyst's executive officers have options to purchase shares of Catalyst common stock that will be converted into options to purchase shares of Targacept common stock, and certain of Catalyst's directors and executive officers are expected to become directors and executive officers of the combined company upon the closing of the merger. Specifically, Nassim Usman, Ph.D., Fletcher Payne and Edwin Madison, Ph.D., all currently executive officers of Catalyst, are expected to become executive officers of the combined company upon the closing of the merger, with Dr. Usman serving as the President and Chief Executive Officer, Mr. Payne serving as Chief Financial Officer and Dr. Madison serving as Chief Scientific Officer, and Harold E. Selick, Ph.D., Nassim Usman, Ph.D., Jeff Himawan, Ph.D., and Augustine Lawlor, all currently directors of Catalyst, have been designated to serve on the board of directors of the combined company following the completion of the merger. Certain Catalyst officers, directors and significant shareholders also entered into voting agreements in connection with the merger. The voting agreements are discussed in greater detail in the section entitled "Agreements Related to the Merger—Voting Agreements" beginning on page 137.

Material U.S. Federal Income Tax Consequences of the Merger to Holders of Catalyst Common Stock (see page 99)

Each of Targacept and Catalyst intends the merger to qualify as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code of 1986, as amended, or the Code. Assuming the merger qualifies as a reorganization under the Code, then, in general, the material tax consequences to U.S. Holders (as defined herein) of Catalyst common stock will be as follows:

- a Catalyst stockholder will not recognize gain or loss upon the exchange of Catalyst common stock for Targacept common stock pursuant to the merger, except to the extent of cash received in lieu of a fractional share of Targacept common stock as described below;
- a Catalyst stockholder who receives cash in lieu of a fractional share of Targacept common stock in the merger will generally recognize capital gain or loss in an amount equal to the difference between the amount of cash received instead of a fractional share and the stockholder's tax basis allocable to such fractional share;
- a Catalyst stockholder's aggregate tax basis for the shares of Targacept common stock received in the merger (including any fractional share interest for which cash is received) will equal the stockholder's aggregate tax basis in the shares of Catalyst common stock surrendered upon completion of the merger; and
- the holding period of the shares of Targacept common stock received by a Catalyst stockholder in the merger will include the holding period of the shares of Catalyst common stock surrendered in exchange therefor.

Since Targacept stockholders will continue to own and hold their existing shares of Targacept common stock following the merger, the merger generally will not result in U.S. federal income tax consequences to Targacept shareholders.

Tax matters are very complicated, and the tax consequences of the merger to a particular Catalyst stockholder will depend on such stockholder's circumstances. Accordingly, you should consult your tax advisor for a full understanding of the tax consequences of the merger to you, including the applicability and effect of federal, state, local and foreign income and other tax laws. For more information, please see the section entitled "The Merger —Material U.S. Federal Income Tax Consequences of the Merger to Holders of Catalyst Common Stock" beginning on page 99.

Material U.S. Federal Income Tax Consequences of the Pre-Closing Dividend to Holders of Targacept Common Stock (see page 101)

For U.S. federal income tax purposes, Targacept intends to treat the Pre-Closing Dividend on the Pre-Closing Dividend Date as a distribution in an amount equal to the sum of (1) the fair market value (on the Pre-Closing Dividend Date) of the redeemable convertible notes and (2) the Pre-Closing Cash Dividend. For U.S. federal income tax purposes, such distribution may be a dividend subject to withholding, return of basis and/or gain from the disposition of Targacept stock, depending in part on the current earnings and profits of Targacept as calculated under U.S. federal income tax principles. Targacept expects that it will not have current or accumulated earnings and profits for its current taxable year (which will end in connection with the merger), but it is possible that, contrary to expectations, Targacept will have current earnings and profits for its current taxable year. If there are current or accumulated earnings and profits, the Pre-Closing Dividend will generally be treated as a dividend to the extent of such amount. Dividends received by individual U.S. Holders of Targacept common stock generally should qualify for reduced tax rates so long as certain holding period requirements are met. Dividends received by corporate holders may be eligible for the dividends received deduction if the U.S. Holder of Targacept common stock is an otherwise qualifying corporate holder that meets the holding period and certain other requirements for the dividends received deduction. Targacept will not be able to make this determination until after the Pre-Closing Dividend Date. Once the determination is made, Targacept will post its determination regarding its earnings and profits for U.S. federal income tax purposes on its website or otherwise inform its shareholders of such determination.

Tax matters are very complicated, and the tax consequences of the Pre-Closing Dividend to a particular Targacept stockholder will depend on such stockholder's circumstances. Accordingly, you should consult your tax advisor for a full understanding of the tax consequences of the Pre-Closing Dividend and reverse stock split to you, including the applicability and effect of federal, state, local and foreign income and other tax laws. For more information, please see the section entitled "The Merger—Material U.S. Federal Income Tax Consequences of the Pre-Closing Dividend to Holders of Targacept Common Stock" beginning on page 101.

Material U.S. Federal Income Tax Consequences of Ownership of the Redeemable Convertible Notes (see page 107)

Targacept intends to treat the notes as issued with "original issue discount" for U.S. federal income tax purposes, even though they do not pay stated interest, and holders will be required to include the original issue discount in gross income on a constant yield to maturity basis. Generally, for U.S. federal income tax purposes, a holder will not recognize any income, gain or loss upon conversion of a note into common stock. A redemption of a note will generally be treated as a taxable sale of a note for U.S. federal income tax purposes. For more information, please see the section entitled "The Merger—Material U.S. Federal Income Tax Consequences of the Ownership of the Redeemable Convertible Notes" beginning on page 107.

Risk Factors (see page 18)

Both Targacept and Catalyst are subject to various risks associated with their businesses and their industries. In addition, the merger, including the possibility that the merger may not be completed, poses a number of risks to each company and its respective stockholders, including the following risks:

- The market price of Targacept common stock following the completion of the merger may decline as a result of the transaction;
- Targacept and Catalyst stockholders will have a reduced ownership and voting interest in, and will exercise less influence over the management of, the combined company following the completion of the merger;
- Targacept and Catalyst stockholders may not realize a benefit from the proposed merger commensurate with the ownership dilution they will experience in connection with the merger;
- Pfizer's termination of its research and license agreement with Catalyst will delay the closing of the merger and may have other effects on the merger and the combined company's shareholders;
- Failure to complete the proposed merger may adversely affect the common stock price of Targacept and future business and operations of Targacept and Catalyst;
- The anticipated benefits of the merger may not be realized;
- During the pendency of the merger, Targacept and Catalyst may not be able to enter into a business combination with another party at a favorable price because of restrictions in the Merger Agreement, which could adversely affect their respective businesses;
- Provisions of the Merger Agreement may discourage third parties from submitting alternative acquisition proposals, including proposals that may be superior to the proposed merger;
- The lack of a public market for Catalyst shares makes it difficult to determine the fair value of Catalyst, and the merger consideration to be issued to Catalyst securityholders may exceed the actual value of Catalyst;
- If the redeemable convertible notes are redeemed for cash instead of converted into stock, the combined company may need to raise additional dilutive capital;
- Targacept and Catalyst will incur substantial transaction-related costs in connection with the proposed merger;
- A failure by Targacept to comply with the initial listing standards of the NASDAQ Global Select Market may subject its stock to delisting from the NASDAQ Global Select Market, which listing is a condition to the completion of the merger;
- Targacept and Catalyst may become involved in securities class action litigation that could divert management's attention and harm the combined company's business and insurance coverage may not be sufficient to cover all costs and damages;
- If the merger is not completed, the Pre-Closing Dividend will not be paid to Targacept stockholders;
- Targacept may not be able to complete the proposed merger and may elect to pursue another strategic transaction similar to the proposed merger, which may not occur on commercially reasonably terms or at all;
- If the proposed merger is not completed, Targacept may elect to liquidate its remaining assets, and there can be no assurances as to the amount of cash available to distribute to stockholders after paying its debts and other obligations; and

- If the proposed merger is not completed, and Targacept fails to acquire or develop other products or product candidates on commercially reasonable terms, or at all, Targacept may be unable to reestablish a viable operating business.

These risks and other risks are discussed in greater detail under the section entitled "Risk Factors" beginning on page 18. Targacept and Catalyst both encourage you to read and consider all of these risks carefully.

Regulatory Approvals (see page 130)

Targacept must comply with applicable federal and state securities laws and the rules and regulations of The NASDAQ Global Select Market in connection with the issuance of shares of Targacept common stock and the filing of this proxy statement/prospectus/information statement with the SEC. As of the date hereof, the registration statement of which this proxy statement/prospectus/information statement is a part has not become effective.

NASDAQ Stock Market Listing (see page 113)

Targacept has filed an initial listing application with The NASDAQ Global Select Market pursuant to NASDAQ Stock Market LLC "reverse merger" rules. If such application is accepted, Targacept anticipates that Targacept's common stock will be listed on The NASDAQ Global Select Market following the closing of the merger under the trading symbol "CBIO."

Anticipated Accounting Treatment (see page 113)

The merger will be treated by Targacept as a reverse merger under the acquisition method of accounting in accordance with accounting principles generally accepted in the United States. For accounting purposes, Catalyst is considered to be acquiring Targacept in the merger.

Appraisal Rights and Dissenters' Rights (see page 114)

Holders of Targacept common stock are not entitled to appraisal rights in connection with the merger. Catalyst stockholders are entitled to appraisal rights in connection with the merger under Delaware law. For more information about such rights, see the provisions of Section 262 of the Delaware General Corporation Law, referred to as the DGCL, attached hereto as Annex C, and the section entitled "The Merger—Appraisal Rights and Dissenters' Rights" beginning on page 114.

Comparison of Stockholder Rights (see page 310)

Both Targacept and Catalyst are incorporated under the laws of the State of Delaware and, accordingly, the rights of the stockholders of each are currently, and will continue to be, governed by the DGCL. If the merger is completed, Catalyst stockholders will become stockholders of Targacept, and their rights will be governed by the DGCL, the bylaws of Targacept and, assuming Targacept Proposals No. 2 and 3 are approved by Targacept stockholders at the Targacept annual stockholders meeting, the restated certificate of incorporation of Targacept attached to this proxy statement/prospectus/information statement as Annex D, and the amendment thereto attached as Annex E. The rights of Targacept stockholders contained in the amended and restated certificate of incorporation and bylaws of Targacept differ from the rights of Catalyst stockholders under the restated certificate of incorporation and bylaws of Catalyst, as more fully described under the section entitled "Comparison of Rights of Holders of Targacept Stock and Catalyst Stock" beginning on page 310.

SELECTED HISTORICAL AND UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL DATA

The following tables present summary historical financial data for Targacept and Catalyst, summary unaudited pro forma condensed combined financial data for Targacept and Catalyst, and comparative historical and unaudited pro forma per share data for Targacept and Catalyst.

Selected Historical Financial Data of Targacept

The selected financial data as of December 31, 2014 and 2013 and for the years ended December 31, 2014, 2013 and 2012 are derived from the Targacept audited financial statements prepared using accounting principles generally accepted in the United States, which are included in this proxy statement/prospectus/information statement. The selected financial data as of December 31, 2012, 2011, and 2010 and for the years ended December 31, 2011 and 2010 are derived from the Targacept audited financial statements, which are not included in this proxy statement/prospectus/information statement. The selected financial data as of March 31, 2015 and for the three months ended March 31, 2015 and 2014 are derived from the Targacept unaudited financial statements and related notes, which are included in this proxy statement/prospectus/information statement. The financial data should be read in conjunction with "Targacept Management's Discussion and Analysis of Financial Condition and Results of Operations" and the Targacept financial statements and related notes appearing elsewhere in this proxy statement/prospectus/information statement. The historical results are not necessarily indicative of results to be expected in any future period.

	Year Ended December 31,					Three Months Ended March 31,	
	2014	2013	2012	2011	2010	2015	2014
			(in thousands, except share and per share data)			(unaudited)	
Statement of Operations Data:							
Net operating revenues	$ 275	$ 3,629	$ 57,860	$ 97,637	$ 85,713	$ 60	$ 87
Operating expenses:							
Research and development	19,499	38,840	49,087	95,215	64,546	2,340	9,080
General and administrative	10,172	12,005	13,193	12,167	8,052	3,387	2,763
Reduction in force	318	—	3,718	—	—	1,156	—
Total operating expenses	29,989	50,845	65,998	107,382	72,598	6,883	11,843
(Loss) income from operations	(29,714)	(47,216)	(8,138)	(9,745)	13,115	(6,823)	(11,756)
Interest income	585	784	1,070	1,348	1,463	92	178
Gain (loss) on sale of property and equipment	13	(213)	55	—	—	—	—
Interest expense	(23)	(53)	(86)	(132)	(153)	—	(9)
(Loss) income before income taxes	(29,139)	(46,698)	(7,099)	(8,529)	14,425	(6,731)	(11,587)
Income tax (expense) benefit	(3,484)	(7)	101	—	(3,526)	(21)	(3,412)
Net (loss) income	$ (32,623)	$ (46,705)	$ (6,998)	$ (8,529)	$ 10,899	$ (6,752)	$ (14,999)
Basic net (loss) income per share	$ (0.97)	$ (1.39)	$ (0.21)	$ (0.27)	$ 0.38	$ (0.20)	$ (0.44)
Diluted net (loss) income per share	$ (0.97)	$ (1.39)	$ (0.21)	$ (0.27)	$ 0.36	$ (0.20)	$ (0.44)
Cash distribution declared per common share	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Weighted average common shares outstanding —basic	33,780,433	33,640,323	33,476,316	31,637,283	28,543,408	33,796,380	33,746,917
Weighted average common shares outstanding —diluted	33,780,433	33,640,323	33,476,316	31,637,283	30,150,324	33,796,380	33,746,917

	As of December 31,					As of March 31,
	2014	2013	2012	2011	2010	2015 (unaudited)
	(in thousands)					
Balance Sheet Data:						
Cash, cash equivalents and investments	$ 110,803	$ 143,777	$ 184,927	$ 249,270	$ 252,509	$ 106,277
Working capital	105,227	82,627	116,394	119,606	119,422	101,333
Total assets	111,999	145,873	189,579	258,126	262,787	107,136
Long-term debt, net of current portion	—	283	1,136	1,986	1,349	—
Accumulated deficit	(313,256)	(280,633)	(233,928)	(226,930)	(218,401)	(320,008)
Total stockholders' equity	109,085	134,611	175,915	174,288	91,847	103,233

Selected Historical Financial Data of Catalyst

The selected financial data as of December 31, 2014 and 2013 and for the years ended December 31, 2014 and 2013 are derived from the Catalyst audited financial statements prepared using accounting principles generally accepted in the United States, which are included in this proxy statement/prospectus/information statement. The audit report on the financial statements for the years ended December 31, 2014 and 2013, which appears elsewhere herein, includes an explanatory paragraph related to Catalyst's ability to continue as a going concern. The selected financial data as of December 31, 2012 and for the year ended December 31, 2012 are derived from the Catalyst audited financial statements, which are not included in this proxy statement/prospectus/information statement. The selected financial data as of March 31, 2015 and for the three months ended March 31, 2015 and 2014 are derived from the Catalyst unaudited financial statements and related notes, which are included in this proxy statement/prospectus/information statement. The financial data should be read in conjunction with "Catalyst Management's Discussion and Analysis of Financial Condition and Results of Operations" and the Catalyst financial statements and related notes appearing elsewhere in this proxy statement/prospectus/information statement. The historical results are not necessarily indicative of results to be expected in any future period.

	Year Ended December 31,			Three Months Ended March 31,	
	2014	2013	2012	2015	2014
	(in thousands, except share and per share data)			(unaudited)	
Statements of Operations Data:					
Contract revenue	$ 1,813	$ 523	$ —	$ 672	$ 297
Operating expenses:					
Research and development	5,267	6,557	14,176	1,383	1,248
General and administrative	4,055	4,086	4,558	2,321	912
Total operating expenses	9,322	10,643	18,734	3,704	2,160
Loss from operations	(7,509)	(10,120)	(18,734)	(3,032)	(1,863)
Other income	541	154	1	96	129
Change in fair value of warrant liability	355	—	—	78	—
Interest Expense	—	—	(340)	—	—
Net loss	$ (6,613)	$ (9,966)	$ (19,073)	$ (2,858)	$ (1,734)
Net loss per share, basic and diluted (unaudited)	$ (0.69)	$ (1.04)	$ (2.17)	$ (0.29)	$ (0.18)
Weighted-average common shares outstanding, basic and diluted (unaudited)	9,622,682	9,560,572	8,783,215	9,751,016	9,560,572

	As of December 31,			As of March 31,
	2014	2013	2012	2015 (unaudited)
	(in thousands)			
Balance Sheet Date:				
Cash and cash equivalents	$ 1,544	$ 2,828	$ 3,401	$ 2,069
Restricted cash	50	50	50	107
Working capital	(266)	1,165	2,715	130
Total assets	2,981	5,274	6,783	3,705
Warrant liability	391	—	—	313
Convertible preferred stock	108,877	104,641	98,899	112,148
Accumulated deficit	(116,275)	(109,661)	(99,695)	(119,133)
Total stockholders' deficit	(109,352)	(103,008)	(93,340)	(112,153)

Selected Unaudited Pro Forma Condensed Combined Financial Data of Targacept and Catalyst
(In thousands, except share and per share amounts)

The following information does not give effect to the proposed reverse stock split of Targacept common stock described in Targacept Proposal No. 2.

	Year Ended December 31, 2014	Three Months Ended March 31, 2015
	(in thousands except per share amount)	
Unaudited Pro Forma Combined Statement of Operations Data:		
Contract revenue	$ 2,088	$ 732
Operating expenses:		
Research and development	24,766	3,723
General and administrative	14,227	5,708
Reduction in force	318	1,156
Total operating expenses	39,311	10,587
Net loss	$ (39,591)	$ (9,688)
Basic and diluted net loss per share	$ (0.48)	$ (0.12)

	As of March 31, 2015
	(In thousands)
Unaudited Pro Forma Combined Balance Sheet Data:	
Cash and cash equivalents	$ 48,410
Restricted cash	37,107
Working capital	38,764
Redeemable convertible notes payable	28,982
Embedded derivatives	8,018
Total stockholders' equity	38,948

Comparative Historical and Unaudited Pro Forma Per Share Data

The information below reflects the historical net loss and book value per share of Targacept common stock and the historical net loss and book value per share of Catalyst common stock in comparison with the unaudited pro forma net loss and book value per share after giving effect to the proposed merger of Targacept with Catalyst on pro forma basis. The unaudited pro forma net loss and book value per share does not give effect to the proposed reverse stock split of Targacept common stock described in Targacept Proposal No. 2.

You should read the tables below in conjunction with the audited and unaudited financial statements of Targacept included in this proxy statement/prospectus/information statement and the audited and unaudited financial

statements of Catalyst included in this proxy statement/prospectus/information statement and the related notes and the unaudited pro forma condensed combined financial information and notes related to such financial statements included elsewhere in this proxy statement/prospectus/information statement.

TARGACEPT

	Three Months Ended March 31, 2015	Year Ended December 31, 2014
Historical Per Common Share Data:		
Basic and diluted net loss per share	$ (0.20)	$ (0.97)
Book value per share	3.01	3.18

CATALYST

	Three Months Ended March 31, 2015	Year Ended December 31, 2014
Historical Per Common Share Data:		
Basic and diluted net loss per share	$ (0.29)	$ (0.69)
Book value per share	$ (11.43)	$ (11.26)

TARGACEPT AND CATALYST

	Three Months Ended March 31, 2015	Year Ended December 31, 2014
Combined Company Pro Forma Data:		
Basic and diluted net loss per share	$ (0.12)	$ (0.48)
Book value per share	$ 0.48	$ 0.47

MARKET PRICE AND DIVIDEND INFORMATION

Targacept common stock is listed on The NASDAQ Global Select Market under the symbol "TRGT." The following table presents, for the periods indicated, the range of high and low per share sales prices for Targacept common stock as reported on The NASDAQ Global Select Market for each of the periods set forth below. Catalyst is a private company and its common stock and preferred stock are not publicly traded. These per share sales prices do not give effect to the proposed reverse stock split of Targacept common stock to be implemented prior to the completion of the merger.

Targacept Common Stock

	High	Low
2013:		
First Quarter	$4.83	$4.19
Second Quarter	$5.77	$4.06
Third Quarter	$5.84	$4.28
Fourth Quarter	$6.11	$3.75
2014:		
First Quarter	$5.23	$4.04
Second Quarter	$4.88	$3.52
Third Quarter	$4.68	$2.47
Fourth Quarter	$2.85	$2.25
2015:		
First Quarter	$3.23	$2.44
Second Quarter	$3.00	$2.15
Third Quarter (until July 15, 2015)	$2.84	$2.60

The closing price of Targacept common stock on March 4, 2015, the last trading day prior to the public announcement of the merger, was $2.60 per share and the closing price of Targacept common stock on July 15, 2015 was $2.72 per share, in each case as reported on The NASDAQ Global Select Market.

Because the market price of Targacept common stock is subject to fluctuation, the market value of the shares of Targacept common stock that Catalyst stockholders will be entitled to receive in the merger may increase or decrease.

Assuming approval of Targacept Proposal No. 3 and successful application for initial listing with The NASDAQ Global Select Market, following the completion of the merger, Targacept common stock will be listed on The NASDAQ Global Select Market and will trade under Targacept's new name, "Catalyst Biosciences, Inc.," and new trading symbol, "CBIO."

As of July 15, 2015, the record date for the Targacept annual stockholders meeting, Targacept had 43 holders of record of its common stock. As of July 15, 2015, the record date for Catalyst's notice of action taken by written consent, Catalyst had 81 holders of record of its common stock and 70 holders of record of its preferred stock.

Dividends

Targacept has never paid or declared any cash dividends on its common stock. The Targacept board of directors intends to declare a dividend to its stockholders of record as of a date prior to the closing of the merger, as discussed in greater detail in the section entitled "Agreements Related to the Merger—Pre-Closing Dividend"

beginning on page 138. Apart from this dividend, Targacept does not anticipate paying periodic cash dividends on its common stock for the foreseeable future. Notwithstanding the foregoing, any determination to pay dividends subsequent to the merger will be at the discretion of Targacept's then-current board of directors and will depend upon a number of factors, including its results of operations, financial condition, future prospects, contractual restrictions, restrictions imposed by applicable law and other factors Targacept's then-current board of directors deems relevant.

Catalyst has never paid or declared any cash dividends on its common or preferred stock. If the merger does not occur, Catalyst does not anticipate paying any cash dividends on its common or preferred stock in the foreseeable future, and Catalyst intends to retain all available funds and any future earnings to fund the development and expansion of its business. Any future determination to pay dividends will be at the discretion of Catalyst's board of directors and will depended upon a number of factors, including its results of operations, financial condition, future prospects, contractual restrictions, restrictions imposed by applicable law and other factors Catalyst's then-current board of directors deems relevant.

RISK FACTORS

The combined company will be faced with a market environment that cannot be predicted and that involves significant risks, many of which will be beyond its control. In addition to the other information contained in this proxy statement/prospectus/information statement, you should carefully consider the material risks described below before deciding how to vote your shares of stock. In addition, you should read and consider the risks associated with the business of Targacept because these risks may also affect the combined company—these risks can be found in Targacept's Annual Report on Form 10-K, as updated by subsequent Quarterly Reports on Form 10-Q, all of which are filed with the SEC. You should also read and consider the other information in this proxy statement/prospectus/information statement and the other documents incorporated by reference into this proxy statement/prospectus/information statement. Please see the section entitled "Where You Can Find More Information" beginning on page 325.

Risks Related to the Merger

The market price of Targacept common stock following the completion of the merger may decline as a result of the transaction.

The market price of Targacept common stock may decline as a result of the merger for a number of reasons, including if:

- investors react negatively to the prospects of the combined company's business and prospects; or
- the performance of the combined company's business or its future prospects are not consistent with the expectations of financial or industry analysts.

Targacept and Catalyst equityholders will have a reduced ownership and voting interest in, and will exercise less influence over the management of, the combined company following the completion of the merger.

After the completion of the merger, the current stockholders of Targacept and Catalyst will own a significantly smaller percentage of the combined company than their ownership of their respective companies prior to the merger. At the effective time of the merger, Targacept equityholders will collectively own approximately 42% of the combined company, and Catalyst equityholders will collectively own up to approximately 58% of the combined company, based on shares of Catalyst and Targacept outstanding as of July 15, 2015, and assuming Catalyst's net cash at closing meets the target set forth in the Merger Agreement. In addition, the seven-member Board of Directors of the combined company will initially be comprised of four current Catalyst directors and three current Targacept directors. Consequently, stockholders of Targacept and Catalyst will be able to exercise less influence over the management and policies of the combined company than they currently exercise over the management and policies of their respective companies.

Targacept and Catalyst stockholders may not realize a benefit from the merger commensurate with the ownership dilution they will experience in connection with the merger.

If the combined company is unable to realize the full strategic and financial benefits anticipated from the merger, Targacept and Catalyst stockholders will have experienced substantial dilution of their ownership interests without receiving any commensurate benefit, or only receiving part of the commensurate benefit to the extent the combined company is able to realize only part of the strategic and financial benefits currently anticipated from the merger.

Pfizer's termination of its research and license agreement with Catalyst has delayed the originally anticipated schedule for the closing of the merger from the second quarter of 2015 to the third quarter of 2015. This delay will result in additional operating costs that will reduce the amount of the originally anticipated cash dividend to Targacept's stockholders in connection with the merger. The Pfizer termination may have other effects on the merger and the combined company's shareholders.

As Targacept reported on April 6, 2015, Catalyst notified Targacept on April 1, 2015, that Pfizer would be exercising its right to terminate in its entirety the June 29, 2009, research and license agreement between Catalyst and Wyeth LLC (a wholly owned subsidiary of Pfizer), which governs the development and commercialization of Catalyst's leading human Factor VIIa product candidate for the treatment of hemophilia and surgical bleeding indications, known as CB 813d/PF-05280602. On April 2, 2015, Pfizer provided Catalyst with its formal written notice of termination of the research and license agreement.

This development will delay the anticipated closing date of the merger from the second quarter of 2015 to the third quarter of 2015. Targacept had originally anticipated a cash dividend to its shareholders, prior to the closing of the merger, of approximately $20.0 million. Given the delay in the closing date of the merger and associated operating costs incurred in the interim, the amount of this cash dividend is now likely to be approximately $19.0 million. This development may also require the combined company to raise additional financing in the capital markets sooner than originally planned, resulting in additional dilution to the combined company's stockholders.

Failure to complete the merger may adversely affect the common stock price of Targacept and future business and operations of Targacept and Catalyst.

If the merger is not completed, Targacept and Catalyst are subject to the following risks:

- if the Merger Agreement is terminated under certain circumstances, Targacept will be required to pay Catalyst a termination fee of $3.22 million, or reimburse Catalyst for up to $1.25 million in certain transaction expenses;
- the attention of management of Targacept and Catalyst will have been diverted to the merger instead of being directed solely to their own operations and the pursuit of other opportunities that may have been beneficial to Targacept;
- the loss of time and resources of Targacept and Catalyst;
- the price of Targacept stock may decline and remain volatile; and
- costs related to the merger, such as legal, accounting and transaction agent fees, some of which must be paid even if the merger is not completed.

In addition, if the Merger Agreement is terminated and the board of directors of Targacept or Catalyst determines to seek another business combination, there can be no assurance that Targacept or Catalyst will be able to find a transaction that is superior or equal in value to the merger.

Targacept and Catalyst may fail to realize the anticipated benefits of the merger.

The success of the merger will depend on, among other things, the combined company's ability to achieve its business objectives, including the development of its product candidates. If the combined company is not able to achieve these objectives, the anticipated benefits of the merger may not be realized fully, may take longer to realize than expected, or may not be realized at all.

Targacept and Catalyst have operated and, until the completion of the merger, will continue to operate independently. It is possible that the integration process could result in the loss of key employees, the disruption of each company's ongoing business or inconsistencies in standards, controls, procedures or policies that could adversely affect our ability to comply with reporting obligations as a public company, to satisfy our obligations

to third parties or to achieve the anticipated benefits of the merger. Integration efforts between the two companies will also divert management's attention and resources. Any delays in the integration process or inability to realize the full extent of the anticipated benefits of the merger could have an adverse effect on our business and the results of our operations. Such an adverse effect on our business may impact the value of the shares of the combined company's common stock after the completion of the merger.

In addition, Catalyst could be materially adversely affected prior to the closing of the merger, which could have a material adverse effect on the combined company if Targacept is required to complete the merger. For example, Targacept is required under the Merger Agreement to complete the merger despite any changes in general economic or political conditions or the capital or securities markets in general to the extent they do not disproportionately affect Catalyst; any changes in or affecting the industries in which Catalyst operates, to the extent they do not disproportionately affect Catalyst; any changes, effects or circumstances resulting from the announcement or pendency of the Merger Agreement or the completion of the contemplated transactions or compliance with the terms of the Merger Agreement; any changes in laws or applicable accounting principles, or interpretations thereof; and the commencement, continuation or escalation of war, terrorism or hostilities, or natural disasters or political events. If any such adverse changes occur and the merger is still completed, Targacept's stock price may suffer. This in turn may reduce the value of the merger to the stockholders of Targacept.

During the pendency of the merger, neither Targacept nor Catalyst may be able to enter into a business combination with another party at a favorable price because of restrictions in the Merger Agreement, which could adversely affect their businesses.

Covenants in the Merger Agreement generally prohibit Targacept and Catalyst from entering into certain extraordinary transactions with any third-party, including mergers, purchases or sales of assets, or other business combinations, subject to certain exceptions relating to fiduciary duties, or from completing other transactions that are not in the ordinary course of business pending completion of the merger, including transactions that may be favorable to the companies or their stockholders. As a result, if the merger is not completed, each company's stockholders may be adversely impacted by its inability to pursue other beneficial opportunities during the pendency of the merger.

Provisions of the Merger Agreement may discourage third parties from submitting alternative acquisition proposals, including proposals that may be superior to the merger.

The terms of the Merger Agreement prohibit Targacept and Catalyst from soliciting alternative takeover proposals or cooperating with persons making unsolicited takeover proposals, except in limited circumstances when its board of directors determines in good faith that an unsolicited alternative takeover proposal constitutes or is reasonably likely to result in a superior acquisition proposal, and that failure to pursue such proposal would be considered a breach of the board's fiduciary duties. If Targacept terminates the Merger Agreement because it enters into an alternative superior transaction, Targacept would be required to pay a termination fee of $3.22 million to Catalyst. Such termination fee may discourage third parties from submitting alternative takeover proposals to Targacept, and may cause the board of directors to be less inclined to recommend an alternative proposal.

The lack of a public market for Catalyst shares makes it difficult to determine the fair market value of Catalyst, and the merger consideration to be issued to Catalyst securityholders may exceed the actual value of Catalyst.

The outstanding capital stock of Catalyst is privately held and is not traded on any public market, which makes it difficult to determine the fair market value of Catalyst. There can be no assurances that the merger consideration to be issued to Catalyst securityholders will not exceed the actual value of Catalyst.

If the redeemable convertible notes are redeemed for cash instead of converted for stock, the combined company may need to raise additional dilutive capital.

In connection with the merger, Targacept stockholders will receive a Pre-Closing Dividend, which consists in part of $37.0 million in aggregate principal amount of redeemable convertible notes. The notes will be convertible at the option of the noteholders, at any time within 30 months following the closing into shares of the combined company at a conversion rate of $9.19 per share, which represents 130% of the negotiated per-share value of Targacept's assets following the anticipated Pre-Closing Dividend, as adjusted to reflect the planned 7-for-1 reverse stock split described elsewhere in this proxy statement/prospectus/information statement. The combined company is expected to have a cash balance, exclusive of Targacept's close-out costs, of approximately $77.0 million upon closing of the merger, including $37.0 million to be held in escrow for the benefit of the note holders and the combined company. If all of the notes are redeemed for cash or are repaid upon maturity and not converted into stock of the combined company, the approximately $37.0 million of cash required to satisfy the redemption will not be available to fund the ongoing operations of the combined company. Targacept cannot predict when or to what extent noteholders will elect to redeem or convert the principal under the notes, and decisions by noteholders by will be influenced by a variety of factors, including the trading price of the combined company's common stock during the 30 months following the closing. If a substantial amount of the cash balance of the combined company is required to satisfy note redemptions, the combined company may need to raise additional capital in the future to fund operations sooner than it otherwise would. Additional capital required in the future may cause dilution of the stockholders of the combined company.

Targacept, Catalyst and the combined company will incur substantial transaction-related costs in connection with the merger.

Targacept and Catalyst have incurred, and expect to continue to incur, a number of non-recurring transaction-related costs associated with completing the merger and combining the two companies. These fees and costs have been, and will continue to be, substantial. Catalyst and Targacept together have incurred $3.1 million in expenses related to completing the merger and estimate they will incur additional merger related expenses of $2.2 million before consummation of the merger. Non-recurring transaction costs include, but are not limited to, fees paid to legal, financial and accounting advisors, severance and benefit costs, filing fees and printing costs. Additional unanticipated costs may be incurred in the integration of the operations of Targacept and Catalyst, which may be higher than expected and could have a material adverse effect on the combined company's financial condition and operating results.

A failure by Targacept to comply with the initial listing standards of the NASDAQ Global Select Market may subject its stock to delisting from the NASDAQ Global Select Market, which listing is a condition to the completion of the merger.

Targacept's common stock is currently listed for trading on the NASDAQ Global Select Market. Immediately prior to the completion of the merger, Targacept will be required to meet the initial listing requirements to maintain the listing and continued trading of its shares on the NASDAQ Global Select Market. These initial listing requirements are more difficult to achieve than the continued listing requirements under which Targacept is now trading. Based on information currently available to Targacept, Targacept anticipates that it will be unable to meet the $4.00 minimum bid price initial listing requirement at the closing of the merger unless it effects a reverse stock split. If Targacept is unable to satisfy these requirements, NASDAQ may notify Targacept that its stock will be subject to delisting from the NASDAQ Global Select Market. It is a condition to Catalyst's obligation to complete the merger that Targacept maintain the listing of its common stock on NASDAQ. In addition, oftentimes a reverse stock split will not result in a trading price for the affected common stock that is proportional to the ratio of the split. Targacept believes that a reverse stock split will be in the best interest of the combined company and its stockholders and, accordingly, asks for its shareholders to approve a proposed reverse stock split as set forth elsewhere in this proxy statement/prospectus/information statement. However, Targacept cannot assure you that the implementation of the reverse stock split will have a positive impact on the price of its common stock.

The combined company may become involved in securities class action litigation that could divert management's attention and harm the combined company's business and insurance coverage may not be sufficient to cover all costs and damages.

In the past, securities class action or shareholder derivative litigation often follows certain significant business transactions, such as the sale of a business division or announcement of a merger. The combined company may become involved in this type of litigation in the future. Litigation often is expensive and diverts management's attention and resources, which could adversely affect the combined company's business.

Risks Related to Targacept

If the merger is not completed, the Pre-Closing Dividend will not be distributed to Targacept stockholders.

Distribution of the Pre-Closing Dividend to the Targacept stockholders is contingent upon the completion of the merger. If the merger does not occur, Targacept will not distribute the Pre-Closing Dividend, and there is no assurance the Targacept board of directors will declare or distribute any dividends on the Targacept common stock in the future.

Targacept may not be able to complete the merger and may elect to pursue another strategic transaction similar to the merger, which may not occur on commercially reasonable terms or at all.

Targacept cannot assure you that it will be able to complete the merger in a timely manner or at all. The Merger Agreement is subject to many closing conditions and termination rights, including, among others, the right by either party to terminate if the merger has not been completed by September 30, 2015, if the stockholders of Targacept do not give the requisite approval to complete the merger or any of the transactions contemplated by the Merger Agreement at the Targacept stockholders meeting, or if the terminating party enters into a definitive agreement to effect a superior competing proposal. If the Merger Agreement is terminated under certain circumstances, Targacept or Catalyst will be required to pay the other party a termination fee of $3.22 million or $2.275 million, respectively. Targacept's assets currently consist primarily of cash, cash equivalents and marketable securities, and its listing on the NASDAQ Global Select Market. If Targacept does not complete the merger, its board of directors may elect to attempt to complete another strategic transaction similar to the merger. Such attempts will likely be costly and time consuming, and Targacept cannot make any assurances that a future strategic transaction will occur on commercially reasonable terms or at all.

If the merger is not completed, Targacept may elect to liquidate its remaining assets, and there can be no assurances as to the amount of cash available to distribute to stockholders after paying its debts and other obligations.

If Targacept does not complete the merger, the board of directors may elect to take the steps necessary to liquidate all remaining assets of Targacept in light of the risks of reestablishing an operating business. The process of liquidation may be lengthy and Targacept cannot make any assurances regarding the timing of completing such a process. In addition, Targacept would be required to pay all of its debts and contractual obligations, and to set aside certain reserves for potential future claims. There can be no assurance as to the amount of available cash that will be available to distribute to stockholders after paying Targacept's debts and other obligations and setting aside funds for reserves, nor as to the timing of any such distribution.

Targacept's recent clinical trials have resulted in significant clinical pipeline attrition. Targacept has closed its laboratory operations and no longer has the capability to discover new product candidates internally.

In 2012, Targacept completed two workforce reductions and closed its laboratory operations. Following these actions, Targacept does not have internal discovery and research capabilities to identify and discover new product candidates. Targacept has no current plan to resume discovery or research activities. Without internal discovery and research capability, Targacept will not be able to expand Targacept's pipeline with internal candidates.

A small number of Targacept's stockholders beneficially own a substantial amount of Targacept's common stock and have substantial control over Targacept; therefore, your ability to influence corporate matters may be limited.

Certain stockholders of Targacept collectively beneficially own or control approximately 41% of Targacept's outstanding common stock as of May 15, 2015 and, acting together, have the ability to affect matters submitted to Targacept stockholders for approval, including the approval of significant transactions, like the merger. This concentration of ownership may have the effect of delaying, deferring or preventing a strategic transaction, even if such a transaction would benefit other stockholders.

Targacept's ability to use net operating loss and tax credit carryforwards and certain built-in losses to reduce future tax payments is limited by provisions of the Internal Revenue Code, and may be subject to further limitation as a result of prior or future offerings of Targacept's stock or other transactions.

Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, or the Code, contain rules that limit the ability of a company that undergoes an ownership change, which is generally an increase in the ownership percentage of certain stockholders in the stock of a company by more than 50 percent over a three-year period, to utilize its net operating loss and tax credit carryforwards and certain built-in losses recognized in years after the ownership change. These rules generally operate by focusing on ownership changes involving stockholders owning directly or indirectly 5% or more of the stock of a company and any change in ownership arising from a new issuance of stock by the company. Generally, if an ownership change as defined by Section 382 occurs, the yearly taxable income limitation on the use of net operating loss and tax credit carryforwards and certain built-in losses is equal to the product of the applicable long term tax exempt rate and the value of the company's stock immediately before the ownership change. The merger may result in such an ownership change. If any of Targacept's past or future transactions are determined to have caused one or more Section 382 ownership changes, Targacept generally would not be able to use Targacept's pre-change loss or credit carryovers or certain built-in losses prior to such ownership change to offset future taxable income in excess of the annual limitations imposed by Sections 382 and 383, which may result in the expiration of a portion of Targacept's tax attributes before utilization.

Targacept has a substantial accumulated deficit and expects to continue to incur losses for future periods.

As of March 31, 2015, Targacept had an accumulated deficit of $320.0 million. Targacept had a net loss of $6.8 million for the quarter ended March 31, 2015, and net losses of $32.6 million and $46.7 million for the years ended December 31, 2014 and 2013, respectively. Targacept's losses for other periods have historically resulted principally from costs incurred in connection with Targacept's research and development activities, including clinical trials, and from general and administrative expenses associated with Targacept's operations. Targacept expects to continue to incur losses for future periods. As a result, following the completion of the merger, the combined company will need to generate significant revenues to achieve profitability in the future or, if Targacept does achieve profitability for any particular period, to sustain or grow Targacept's profitability on a quarterly or annual basis.

Targacept derived a substantial portion of its revenue in past years from Targacept's strategic alliances and collaborations, which have all terminated. Targacept does not currently have any source of product revenue.

If Targacept is unable to protect its intellectual property effectively, Targacept's competitors may develop and market similar products and the value of its technology and its ability to monetize its NNRs and related assets, or NNR Assets, would be damaged.

Targacept depends significantly on its ability to obtain and maintain meaningful intellectual property protection for its product candidates, technology and know-how. Targacept generally seeks to protect its compounds and technologies by, among other methods, filing U.S. and foreign patent applications related to its proprietary technology that is important to the development of its business. Targacept files patent applications directed to its product candidates in an effort to establish intellectual property positions regarding new chemical entities, pharmaceutical compositions, formulations and uses in the treatment of diseases and disorders.

The patent positions of companies like Targacept are generally uncertain and involve complex legal and factual questions. Targacept's ability to maintain and solidify its proprietary position for its product candidates and technology will depend on the success that Targacept has in obtaining valid patent claims and enforcing claims that are granted. Targacept does not know whether any of its patent applications or those patent applications that it licenses will result in the issuance of any patents. Targacept's issued patents and those that may issue in the future, or those licensed to Targacept, may be challenged, invalidated, rendered unenforceable or circumvented, any of which could limit Targacept's ability to stop competitors from marketing related products. In addition, the rights granted under any issued patents may not provide it with competitive advantages against competitors with similar compounds or technologies. Furthermore, Targacept's competitors may independently develop similar technologies in a manner that does not infringe its patents or other intellectual property. If Targacept is unable to obtain, enforce or defend the patents with respect to its product candidates, its ability to monetize its product candidates would be materially and adversely affected.

Although Targacept owns or otherwise has rights to a number of patents, these patents may not effectively exclude competitors from engaging in activities that could compete with it. Furthermore, the issuance of a patent is not conclusive as to its validity or enforceability, and third parties may challenge the validity or enforceability of Targacept's patents. The Leahy-Smith America Invents Act was signed into U.S. law September 26, 2011, and includes significant changes to patent law. One of the most notable changes is the transition from a "first-to-invent" to a "first-inventor-to-file" patent system. This is effective for patent applications filed on or after March 16, 2013. Because patent applications in the United States and many foreign countries are confidential for a period of time after filing, and because publications of discoveries in the scientific literature often lag behind actual discoveries, Targacept cannot be certain that it was the first to invent the inventions claimed in its issued U.S. patents or patent applications filed on or before March 16, 2013, or that Targacept was or will be the first to file for protection of the inventions claimed in any of its U.S. patent applications filed after March 16, 2013 or in any of its issued foreign patents or pending foreign patent applications. It is possible that a competitor may successfully challenge Targacept's patents or that challenges will result in the elimination or narrowing of patent claims and, therefore, reduce its patent protection.

Because of the extensive time required for development, testing and regulatory review of a new drug, it is possible that any patent covering one of Targacept's product candidates may expire before the product candidate can be commercialized or remain in force for only a short period following initial commercialization. In either case, any advantages of the patent would be limited. Changes either in patent laws or in interpretations or enforcement of patent laws in the United States and other countries may diminish the value of Targacept's intellectual property or narrow the scope of its patent protection.

If Targacept is unable to protect the confidentiality of its proprietary information and know-how, the commercial value of its technology and product candidates could be reduced.

In addition to patents, Targacept relies on protection of trade secrets, know-how and confidential and proprietary information to maintain its competitive position. For example, Targacept generally does not seek patent protection for the computer-based molecular design technologies that form part of Pentad and instead seeks to maintain those technologies as trade secrets.

To maintain the confidentiality of trade secrets and proprietary information, Targacept generally enters into confidentiality agreements with its employees, consultants, contractors and collaborators upon the commencement of its relationship with them. These agreements typically require that all confidential information developed by the individual or made known to the individual by Targacept during the course of the individual's relationship with Targacept be kept confidential and not disclosed to third parties. However, Targacept may not obtain these agreements in all circumstances, and individuals with whom Targacept has these agreements may not comply with their terms. Even if obtained, these agreements may not provide meaningful protection for Targacept's trade secrets or other proprietary information or an adequate remedy in the event of their unauthorized use or disclosure. The loss or exposure of Targacept's trade secrets or other proprietary information could impair its competitive position.

Targacept also typically enter into agreements with employees that provide that inventions conceived by them in the course of rendering services to Targacept is its exclusive property and, where appropriate, it enters into similar agreements with consultants and contractors. To the extent that Targacept's employees, consultants or contractors use technology or know-how owned by others in their work for Targacept, disputes may arise as to the rights in related inventions.

If Targacept fails to comply with its obligations in Targacept's intellectual property licenses with third parties, Targacept could lose license rights that support its NNR Assets and, if it has sublicensed its license rights to a third-party, the loss of the license rights may breach Targacept's obligations to its sublicensee.

Targacept is a party to various license agreements. As an example, Targacept licenses patent rights covering the pharmaceutical composition and methods of use of TC-5214 from University of South Florida Research Foundation. Targacept's existing licenses impose, and Targacept expects future licenses will impose, various diligence, milestone payment, royalty, insurance and other obligations on it. If Targacept fails to comply with these obligations, whether as a result of actions or inactions by Targacept or by any potential future collaborator of Targacept's to which Targacept out-license patent rights that Targacept has in-licensed from a third-party, the licensor may have the right to terminate the license, in which event Targacept may not be able to market any product that is covered by the licensed patents.

Targacept may be involved in lawsuits to protect or enforce Targacept's patents that could be expensive and time-consuming.

Targacept may initiate patent litigation against third parties to protect or enforce Targacept's patent rights and it may similarly be sued by third parties. Targacept may also become subject to interference, review or opposition proceedings conducted in the patent and trademark offices of various countries to determine its entitlement to patents. The defense and prosecution of intellectual property suits, interference proceedings and related legal and administrative proceedings, regardless of their merit, lack of merit or eventual outcome, would be costly and a significant diversion of Targacept's technical personnel's and management's attention from conducting its business, which would harm its business. Moreover, Targacept may not prevail in any of these suits. An adverse determination of any litigation or proceeding could put Targacept's patents at risk of being invalidated or narrowly interpreted and its patent applications at risk of not being issued and could prevent it from protecting its rights, particularly in countries where the laws may not protect such rights as fully as in the United States.

Risks Related to Catalyst

Risks related to Catalyst's financial condition and capital requirements

Catalyst has incurred significant losses since its inception, and the combined company after the merger is expected to continue to incur significant losses for the foreseeable future.

Catalyst is a clinical-stage biotechnology company, and it has not yet generated significant revenues. Catalyst has incurred net losses in each year since its inception in August 2002, including net losses of $6.6 million and $10.0 million for the years ended December 31, 2014 and 2013, respectively and $2.9 million for the three months ended March 31, 2015. As of March 31, 2015, Catalyst had an accumulated deficit of $119.1 million.

Catalyst is still in the early stages of development of its product candidates, and has no products approved for commercial sale. To date, Catalyst has financed its operations primarily from private placements of convertible preferred stock, payments under collaboration agreements, and to a lesser extent through issuances of shares of common stock. In addition, due to Pfizer's termination of its research and license agreement with Catalyst, Catalyst's ability to use payments from collaboration agreements to finance its operations will be significantly reduced.

Catalyst has devoted most of its financial resources to research and development, including its preclinical development activities. Catalyst expects to continue to incur significant expenses and operating losses over the

next several years. After the merger, the combined company's operating losses may fluctuate significantly from quarter to quarter and year to year. The combined company is expected to continue to incur significant expenses and increasing operating losses for at least the next several years, and its expenses will increase substantially if and as Catalyst:

- continues clinical development of CB 813d/PF-05280602;
- continues research and preclinical and clinical development of its other product candidates, including CB 2679d/ISU 304;
- initiates additional preclinical, clinical or other studies for its product candidates;
- further develops the manufacturing process for its product candidates;
- changes or adds additional manufacturers or suppliers;
- attracts and retains skilled personnel;
- seeks regulatory and marketing approvals for any of its product candidates that successfully complete clinical studies;
- establishes a sales, marketing and distribution infrastructure to commercialize any products for which it may obtain marketing approval;
- seeks to identify and validate additional product candidates;
- acquires or in-licenses other product candidates and technologies;
- makes milestone or other payments under collaboration agreements, including its collaboration agreement with ISU Abxis, or any in-license agreements;
- maintains, protects and expands its intellectual property portfolio;
- creates additional infrastructure to support operations as a public company and its product development and planned future commercialization efforts; and
- experiences any delays or encounters issues with any of the above.

To become and remain profitable, Catalyst must succeed in developing and eventually commercializing products that generate significant revenue. This will require Catalyst to be successful in a range of challenging activities, including completing preclinical testing and clinical trials of product candidates, discovering additional product candidates, obtaining regulatory approval for these product candidates and manufacturing, marketing and selling any products for which regulatory approval is obtained. Catalyst is only in the preliminary stages of most of these activities. Catalyst may never succeed in these activities and, even if it does, may never generate revenues that are significant enough to achieve profitability.

Because of the numerous risks and uncertainties associated with pharmaceutical product development, Catalyst is unable to accurately predict the timing or amount of increased expenses or when, or if, Catalyst will be able to achieve profitability. Even if Catalyst does achieve profitability, it may not be able to sustain or increase profitability on a quarterly or annual basis. Failure to become and remain profitable would depress the value of the combined company and could impair its ability to raise capital, expand its business, maintain research and development efforts, diversify product offerings or even continue operations. A decline in the value of the combined company could also cause you to lose all or part of your investment.

Catalyst's independent registered public accounting firm has expressed doubt about Catalyst's ability to continue as a going concern.

Based on Catalyst's recurring losses, negative cash flows from operating activities and expectations to incur losses for the next several years, Catalyst's independent registered public accounting firm has included an explanatory paragraph in its report on Catalyst's financial statements as of and for the years ended December 31,

2014 and December 31, 2013 expressing substantial doubt about Catalyst's ability to continue as a going concern. Catalyst will require significant additional funding to continue operations, in addition to those that will be contributed to its business in connection with the merger. If Catalyst is unable to continue as a going concern, it may be forced to liquidate its assets and the values it receives for its assets in liquidation or dissolution could be significantly lower than the values reflected in its financial statements.

Catalyst will need additional capital. If the combined company is unable to raise sufficient capital, it would be forced to delay, reduce or eliminate product development programs.

Developing pharmaceutical products, including conducting preclinical studies and clinical trials, is expensive. Catalyst expects its research and development expenses to increase in connection with its ongoing activities, particularly activities related to the continued clinical development of CB 813d/PF-05280602, including a clinical efficacy trial, and if Phase 1 clinical trials of CB 2679d/ISU 304 are successful and this product candidate moves into Phase 2 clinical trials. Catalyst will also incur additional expenses if Catalyst's product candidates for delayed graft function or age-related macular degeneration enter Phase 1 clinical trials. Expenses are also likely to increase as Catalyst continues to work on its research programs. Catalyst believes that Catalyst's available cash immediately prior to the completion of the merger, together with cash held by Targacept following the Pre-Closing Distribution, will be sufficient for the combined company to fund the Company's operations at least through 2016. However, the combined company will need to raise substantial additional capital to complete the development and commercialization of CB 813d/PF-05280602, CB 2679d/ISU 304 and its other product candidates, and depending on the availability of capital, may need to delay development of its product candidates for delayed graft function or age-related macular degeneration.

Prior to the completion of the merger, Targacept will issue $37.0 million in aggregate principal amount of redeemable convertible notes to its stockholders as part of the Pre-Closing Dividend, with an amount equal to the total principal deposited in an escrow account for the benefit of Targacept stockholders and Catalyst. The notes may be redeemed for cash or repaid upon maturity, but to the extent holders elect to convert any principal amount of the notes into shares of Targacept common stock within 30 months of the closing, those amounts would be released from escrow and made available to Catalyst. Except for this arrangement, Catalyst has no commitments or arrangements for any additional financing to fund its research and development programs. There can be no assurance regarding the amount of the notes that will be redeemed or the portion of the $37.0 million in capital that will become available to the combined company.

Until Catalyst can generate a sufficient amount of revenue from its product candidates, if ever, the combined company is expected to finance future cash needs through public or private equity offerings, debt financings, corporate collaborations and/or licensing arrangements. Additional funds may not be available when Catalyst needs them on terms that are acceptable, or at all. If adequate funds are not available, Catalyst may be required to delay, reduce the scope of or eliminate one or more of its research or development programs.

Because successful development of Catalyst's product candidates is uncertain, Catalyst is unable to estimate the actual funds required to complete research and development and commercialize its products under development. Catalyst's future funding requirements, both near and long-term, will depend on many factors, including, but not limited to:

- the initiation, progress, timing, costs and results of clinical trials for Catalyst's product candidates in hemophilia, including CB 813d/PF-05280602 and CB 2679d/ISU 304;
- the timing, costs and results of preclinical studies for Catalyst's other potential product candidates;
- the number and characteristics of product candidates that Catalyst pursues;
- the terms and timing of any future collaboration, licensing or other arrangements that Catalyst may establish;
- the outcome, timing and cost of regulatory approvals;

- the cost of obtaining, maintaining, defending and enforcing intellectual property rights, including patent rights;
- the effect of competing technological and market developments;
- the cost and timing of completing outsourced manufacturing activities;
- market acceptance of any product candidates for which Catalyst may receive regulatory approval;
- the cost of establishing sales, marketing and distribution capabilities for any product candidates for which Catalyst may receive regulatory approval; and
- the extent to which Catalyst acquires, licenses or invests in businesses, products or technologies.

Raising additional funds by issuing securities or through licensing arrangements may cause dilution to stockholders, restrict Catalyst's operations or require Catalyst to relinquish proprietary rights.

To the extent that Catalyst raises additional capital through the sale of equity or convertible debt securities, stockholders following completion of the merger will be diluted, and the terms of these new securities may include liquidation or other preferences that adversely affect the rights of common stockholders. Debt financing, if available at all, may involve agreements that include covenants limiting or restricting Catalyst's ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If Catalyst raises additional funds through collaborations, strategic alliances or licensing arrangements with third parties, Catalyst may have to relinquish valuable rights to its technologies, product candidates or future revenue streams or grant licenses on terms that are not favorable to Catalyst. Catalyst may also seek to access the public or private capital markets whenever conditions are favorable, even if Catalyst does not have an immediate need for additional capital at that time. There can be no assurance that Catalyst will be able to obtain additional funding if and when necessary. If Catalyst is unable to obtain adequate financing on a timely basis, it could be required to delay, curtail or eliminate one or more, or all, of its development programs or grant rights to develop and market product candidates that it would otherwise prefer to develop and market itself.

Catalyst has no history of clinical development or commercialization of pharmaceutical products, which may make it difficult to evaluate the prospects for the combined company's future viability.

Catalyst began operations in August 2002. Its operations to date have been limited to financing and staffing the company, developing Catalyst's technology and product candidates and establishing collaborations. Catalyst has not yet demonstrated an ability to successfully conduct a clinical trial, obtain marketing approvals, manufacture a product for clinical trials or at commercial scale, or arrange for a third-party to do so on its behalf, or conduct sales and marketing activities necessary for successful product commercialization. Consequently, predictions about the combined company's future success or viability may not be as accurate as they could be if Catalyst had a longer operating history or a history of successfully developing and commercializing pharmaceutical products.

Risks related to the discovery, development and commercialization of Catalyst's product candidates

Catalyst is substantially dependent upon the success of CB 813d/PF-05280602, which is its only product candidate that has completed a Phase 1 clinical trial.

The failure of CB 813d/PF-05280602 to achieve successful clinical trial endpoints, delays in clinical trial enrollment or in the clinical development of CB 813d/PF-05280602 generally, unanticipated adverse side effects related to CB 813d/PF-05280602 or any other adverse developments or information related to CB 813d/PF-05280602 would significantly harm Catalyst's business, its prospects and the value of the combined company's common stock. Catalyst expects to advance CB 813d/PF-05280602 into a clinical efficacy trial in hemophilia A and hemophilia B inhibitor patients. There is no guarantee that the results of this clinical trial, if it occurs, will be positive or will not generate unanticipated safety concerns. The Phase 1 clinical trial of CB 813d/PF-05280602 was a single-dose escalation trial that would not, compared to multi-dose trials, be expected to exclude the

possibility of an immunological response to CB 813d/PF-05280602 in patients who received the product candidate. If subsequent multi-dose trials demonstrate an immunological response, development of CB 813d/PF-05280602 could be halted.

Even if the next trials of CB 813d/PF-05280602 are positive, CB 813d/PF-05280602 may require substantial additional trials and other testing before approving CB 813d/PF-05280602 for marketing. Even if the FDA or other regulatory agency approves CB 813d/PF-05280602, the approval may impose significant restrictions on the indicated uses, conditions for use, labeling, advertising, promotion, marketing and/or production of such product and may impose ongoing commitments or requirements for post-approval studies, including additional research and development and clinical trials. The FDA and other agencies also may impose various civil or criminal sanctions for failure to comply with regulatory requirements, including withdrawal of product approval. Regulatory approval from authorities in foreign countries will be needed to market CB 813d/PF-05280602 in those countries. Approval by one regulatory authority does not ensure approval by regulatory authorities in other jurisdictions. If Catalyst fails to obtain approvals from foreign jurisdictions, the geographic market for CB 813d/PF-05280602 would be limited.

CB 813d/PF-05280602 is not expected to be commercially available in the near term, if at all. Further, the commercial success of CB 813d/PF-05280602 will depend upon its acceptance by physicians, patients, third-party payors and other key decision-makers as a therapeutic and cost effective alternative to currently available products. If Catalyst is unable to successfully develop, obtain regulatory approval for and commercialize CB 813d/PF-05280602, Catalyst's ability to generate revenue from product sales will be significantly delayed and Catalyst's business would be materially and adversely affected, and it may not be able to earn sufficient revenues to continue as a going concern.

Catalyst must transition manufacturing and clinical activities related to CB 813d/PF-05280602 from Pfizer, which had conducted the Phase 1 clinical trial of this product candidate, and this process will be lengthy and its outcome uncertain.

Pfizer conducted the Phase 1 clinical trial of CB 813d/PF-05280602 pursuant to a research and license agreement. Pfizer terminated this agreement effective June 1, 2015, and to Catalyst's knowledge such termination was the result of an internal review of products in development at Pfizer. Under this license agreement, Catalyst and Pfizer collaborated on the development of CB 813d/PF-05280602, and Pfizer was responsible for product manufacturing and clinical trials. To continue development of CB 813d/PF-05280602, Catalyst must successfully transition manufacturing and clinical development activities from Pfizer. Catalyst is in discussions with Pfizer about obtaining manufacturing technology and know-how related to CB 813d/PF-05280602, although there can be no assurance that Catalyst and Pfizer will agree to the terms or mechanism for such transfer, or that any such technology and know-how transfer will be successful. If Catalyst is not able to successfully transfer manufacturing technology and know-how from Pfizer related to CB 813d/PF-05280602, clinical development of this product candidate could be significantly delayed.

The biological basis of Catalyst's product candidates exposes them to risk of adverse immunological response, which could result in the failure of a product to advance further in clinical trials or, with respect to approved products, result in its removal from the market.

All of Catalyst's product candidates are modified versions of human proteases. As a result, they have the potential to elicit an immunological response that eliminates or neutralizes the product, severely inhibiting its efficacy. This in turn could result in the failure of any of Catalyst's product candidates to advance into further clinical trials, or for any approved products to be removed from the market if adverse immunological responses are identified after approval.

Catalyst is very early in its development efforts and has only one product candidate that has completed a Phase 1 clinical trial. All of Catalyst's other product candidates are still in preclinical development. If Catalyst is unable to commercialize its product candidates or experiences significant delays in doing so, the combined company's business will be materially harmed.

Catalyst is very early in its development efforts and has only one product candidate that has completed a Phase 1 clinical trial, CB 813d/PF-05280602. All of Catalyst's other product candidates are still in preclinical development. Catalyst expects to advance CB 813d/PF-05280602 into a clinical efficacy trial in hemophilia A and hemophilia B inhibitor patients. In addition, Catalyst expects that its collaborator ISU Abxis will initiate a Phase 1 clinical trial of CB 2679d/ISU 304, Catalyst's next-generation Factor IX drug candidate for the treatment of patients with hemophilia B, in 2016. Catalyst also expects to initiate preclinical IND-enabling studies for its anti-C3 protease for the prevention of renal delayed graft function, or DGF, in 2015. Catalyst's ability to generate product revenues, which it does not expect will occur for many years, if ever, will depend heavily on the successful development and eventual commercialization of these and other product candidates. The success of its product candidates will depend on several factors, including the following:

- successful completion of preclinical studies and clinical trials;
- receipt of marketing approvals from applicable regulatory authorities;
- obtaining and maintaining patent and trade secret protection and regulatory exclusivity for its product candidates;
- making arrangements with third-party manufacturers for, or establishing, commercial manufacturing capabilities;
- launching commercial sales of the products, if and when approved, whether alone or in collaboration with others;
- acceptance of the products, if and when approved, by patients, the medical community and third-party payors;
- effectively competing with other therapies;
- obtaining and maintaining healthcare coverage and adequate reimbursement;
- protecting Catalyst's rights in its intellectual property portfolio; and
- maintaining a continued acceptable safety profile of the products following approval.

If Catalyst does not achieve one or more of these factors in a timely manner or at all, Catalyst could experience significant delays or an inability to successfully commercialize its product candidates, which would materially harm the combined company's business.

Clinical drug development involves a lengthy and expensive process with an uncertain outcome. Results from Catalyst's successful Phase 1 trials may not be confirmed in later trials, and if serious adverse or unacceptable side effects are identified during the development of Catalyst's product candidates, Catalyst may need to abandon or limit its development of some of its product candidates.

Clinical testing is expensive, time-consuming and uncertain as to outcome. Catalyst cannot guarantee that any preclinical studies and clinical trials will be conducted as planned or completed on schedule, if at all. The clinical development of Catalyst's product candidates is susceptible to the risk of failure inherent at any stage of drug development, including failure to demonstrate efficacy in a clinical trial or across a broad population of patients, the occurrence of severe or medically or commercially unacceptable adverse events, failure to comply with protocols or applicable regulatory requirements and determination by the FDA or any comparable foreign regulatory authority that a drug product is not approvable. It is possible that even if one or more of Catalyst's product candidates has a beneficial effect, that effect will not be detected during clinical evaluation as a result of one or more of a variety of factors, including the size, duration, design, measurements, conduct or analysis of

Catalyst's clinical trials. Conversely, as a result of the same factors, Catalyst's clinical trials may indicate an apparent positive effect of a product candidate that is greater than the actual positive effect, if any. Similarly, in its clinical trials Catalyst may fail to detect toxicity of or intolerability caused by its product candidates, or mistakenly believe that its product candidates are toxic or not well tolerated when that is not in fact the case.

In addition, the outcome of preclinical studies and early clinical trials may not be predictive of the success of later clinical trials. For example, the Phase 1 clinical trial of CB 813d/PF-05280602 was a single dose trial, and adverse immunological reactions would not be likely to appear until patients received a second dose.

Many companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in late-stage clinical trials after achieving positive results in earlier development, and Catalyst may face similar setbacks. The design of a clinical trial can determine whether its results will support approval of a product and flaws in the design of a clinical trial may not become apparent until the clinical trial is well advanced. Catalyst has limited experience in designing clinical trials and may be unable to design and execute a clinical trial to support marketing approval. In addition, preclinical and clinical data are often susceptible to varying interpretations and analyses. Many companies that believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval for the product candidates. Even if Catalyst believes that the results of clinical trials for Catalyst's product candidates warrant marketing approval, the FDA or comparable foreign regulatory authorities may disagree and may not grant marketing approval of Catalyst's product candidates.

In some instances, there can be significant variability in safety or efficacy results between different clinical trials of the same product candidate due to numerous factors, including changes in trial procedures set forth in protocols, differences in the size and type of the patient populations, changes in and adherence to the dosing regimen and other clinical trial protocols and the rate of dropout among clinical trial participants. Any Phase 2, Phase 3 or other clinical trials that Catalyst may conduct may not demonstrate the efficacy and safety necessary to obtain regulatory approval to market Catalyst's product candidates.

If Catalyst's product candidates are associated with undesirable side effects in clinical trials or have characteristics that are unexpected, Catalyst may need to abandon development or limit development of the product candidate to more narrow uses or subpopulations in which the undesirable side effects or other characteristics are less prevalent, less severe or more acceptable from a risk-benefit perspective.

If Catalyst experiences delays or difficulties in the enrollment of patients in clinical trials, its receipt of necessary regulatory approvals could be delayed or prevented.

Catalyst or its collaborators may not be able to initiate or continue clinical trials for its product candidates if it is unable to locate, enroll and maintain enrolment of a sufficient number of eligible patients to participate in these trials as required by the FDA or similar regulatory authorities outside the United States. In particular, there are a relatively small number of hemophilia patients, which may cause delays in enrollment of clinical trials of CB 813d/PF-05280602 or CB 2679d/ISU 304 in hemophilia. In addition, some of Catalyst's competitors have ongoing clinical trials for product candidates that treat the same indications as Catalyst's product candidates, and patients who would otherwise be eligible for Catalyst's clinical trials may instead enroll in clinical trials of its competitors' product candidates.

Patient enrollment is affected by other factors including:

- the severity of the disease under investigation;
- the eligibility criteria for the study in question;
- the perceived risks and benefits of the product candidate under study;
- the efforts to facilitate timely enrollment in clinical trials;
- the patient referral practices of physicians;

- the ability to monitor patients adequately during and after treatment; and
- the proximity and availability of clinical trial sites for prospective patients.

Inability of Catalyst to enroll a sufficient number of patients for its clinical trials would result in significant delays and could require it to abandon one or more clinical trials altogether. Enrollment delays in clinical trials conducted by Catalyst may also result in increased development costs for its product candidates, which would cause the value of the combined company to decline and limit its ability to obtain additional financing.

Catalyst may not be successful in its efforts to use and expand its protease platform to discover and develop drugs that lead to marketable products.

A key element of Catalyst's strategy is to use its protease platform to build a hemostasis franchise and an anti-compliment franchise, which include several highly differentiated drug candidates that address diseases with high unmet medical needs, including delayed graft function, or DGF, and dry age-related macular degeneration, or AMD. The discovery of biopharmaceutical products based on the creation of novel proteases is an emerging field, and the scientific discoveries that form the basis for Catalyst's efforts to discover and develop product candidates using this technology are relatively new. Although modified human protease drugs have been developed, no drugs have been developed premised on novel engineered proteases that preferentially cleave the target of interest. Furthermore, no drugs directly targeting complement factor C3 have been approved.

Accordingly, Catalyst does not know if its approach of using proteases to regulate coagulation and complement cascades will successfully result in the development of additional product candidates for target indications that are safe and effective. Even if Catalyst is successful in continuing to build its pipeline, the potential product candidates that Catalyst identifies may not be suitable for clinical development, including as a result of being shown to have harmful side effects or other characteristics that indicate that they are unlikely to be product candidates that will receive marketing approval and achieve market acceptance. If Catalyst does not successfully develop and commercialize product candidates based upon its technological approach, it will not be able to obtain product revenues in future periods, which likely would result in significant harm to its financial position and adversely affect the combined company's stock price.

Risks related to Catalyst's reliance on third parties

Catalyst depends on its collaborative relationship with ISU Abxis for the Phase 1 development of CB 2679d/ISU 304.

Catalyst has entered into a collaboration agreement with ISU Abxis for preclinical and Phase 1 development of an improved, next-generation Factor IX product, CB 2679d/ISU 304, to enable an investigational new drug application, which will require ISU Abxis to obtain approval from South Korean regulatory authorities to conduct trials. Under this agreement, ISU Abxis is responsible for manufacturing and Phase 1 clinical trials of this product candidate, and Catalyst depends on ISU Abxis to complete these activities.

Catalyst's ability to generate revenues from this arrangement will depend on the ability of ISU Abxis to successfully perform the functions assigned to it in this arrangement, and accordingly, any failure by ISU Abxis to develop this product candidate could adversely affect Catalyst's cash flows. Further, this collaboration agreement may not lead to development or commercialization of this product candidate in the most efficient manner or at all, and ISU Abxis has the right to abandon research or development projects and terminate applicable agreements, including funding obligations, prior to or upon the expiration of the agreed upon terms. Catalyst is subject to a number of risks associated with its dependence on ISU Abxis:

- Catalyst is not able to control any decisions by ISU Abxis regarding the amount and timing of resource expenditures for the development or commercialization of CB 2679d/ISU 304, and may have limited or no ability to control such decisions with respect to other product candidates subject to collaboration agreements;

- ISU Abxis may delay clinical trials, provide insufficient funding, or manufacture insufficient amounts of product, for a clinical trial, stop a clinical trial or abandon products, repeat or conduct new clinical trials or require a new formulation of products for clinical testing;
- ISU Abxis may not perform its obligations as expected;
- Adverse regulatory determinations or other legal action may interfere with the ability of ISU Abxis to conduct clinical trials or other development activity, such as any failure by ISU Abxis to obtain approvals from South Korean regulatory authorities to conduct Phase I clinical trials of CB 2679d/ISU 304;
- ISU Abxis may be subject to regulatory or legal action resulting from the failure to meet healthcare industry compliance requirements in the conduct of clinical trials or the promotion and sale of products;
- Catalyst's relationship with ISU Abxis could be adversely impacted by changes in their key management personnel and other personnel that are administering collaboration agreements; and
- The collaboration with ISU Abxis may be terminated and, if terminated, may result in a need for additional capital to pursue further development or commercialization of CB 2679d/ISU 304.

Catalyst expects to seek to establish additional collaborations, and, if it is not able to establish them on commercially reasonable terms, Catalyst may have to alter its development and commercialization plans.

Catalyst's drug development programs and the potential commercialization of its product candidates will require substantial additional cash to fund expenses. Accordingly, Catalyst may seek one or more additional collaborators for the development and commercialization of one or more of its product candidates. For example, Catalyst may seek a new collaborator to develop CB 813d/PF-05280602 and might also seek collaborators for CB 2689d/ISU 304 or its Factor Xa product candidates. In addition, full development efforts on the use of Catalyst's novel proteases for the treatment of DGF or dry AMD will likely involve significant cost, and Catalyst expects that it may conduct any such efforts in collaboration with one or more partners.

Catalyst faces significant competition in seeking appropriate collaborators. Whether Catalyst can reach a definitive agreement for a collaboration will depend, among other things, upon Catalyst's assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's evaluation of a number of factors. Those factors may include the design or results of preclinical trials, the likelihood of approval by the FDA or comparable foreign regulatory authorities and the regulatory pathway for any such approval, the potential market for the product candidate, the costs and complexities of manufacturing and delivering the product to patients and the potential of competing products. The collaborator may also consider alternative product candidates or technologies for similar indications that may be available for collaboration and whether such a collaboration could be more attractive than the one with Catalyst for its product candidate. There can be no assurance that any collaboration agreements will be on favorable terms.

Collaborations are complex and time-consuming to negotiate and document. In addition, there have been a significant number of recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future collaborators. Catalyst may not be able to negotiate collaborations on a timely basis, on acceptable terms, or at all. If Catalyst is unable to do so, it may have to curtail the development of the product candidate for which it is seeking to collaborate, reduce or delay its development program or one or more of its other development programs, delay its potential commercialization or reduce the scope of any sales or marketing activities, and increase its expenditures and undertake development or commercialization activities at its own expense. If Catalyst elects to increase its expenditures to fund development or commercialization activities on its own, Catalyst may need to obtain additional capital, which may not be available to it on acceptable terms or at all. If Catalyst does not have sufficient funds, it may not be able to further develop its product candidates or bring them to market and generate product revenue.

Catalyst contracts with third parties for the manufacture of its product candidates for preclinical testing and expects to continue to do so for clinical testing and commercialization. This reliance on third parties increases the risk that Catalyst will not have sufficient quantities of its product candidates or products or such quantities at an acceptable cost, which could delay, prevent or impair its development or commercialization efforts.

Catalyst currently has no internal capabilities to manufacture its product candidates for clinical use or for preclinical trials following good manufacturing practices, or GMP, or good laboratory practices, or GLP. Catalyst expects to rely on one or more third-party contractors to manufacture, package, label and distribute clinical supplies and commercial quantities of any product candidate that Catalyst commercializes following approval for marketing by applicable regulatory authorities. Catalyst also expects to rely on one or more third-party contractors to manufacture its product candidates for use in its clinical trials. Reliance on such third-party contractors entails risks, including:

- the inability of Catalyst to identify and negotiate manufacturing and supply agreements with suitable manufacturers;
- manufacturing delays if Catalyst's third-party contractors give greater priority to the supply of other products over Catalyst's product candidates or otherwise do not satisfactorily perform according to the terms of the agreements between Catalyst and them;
- the possible termination or nonrenewal of agreements by Catalyst's third-party contractors at a time that is costly or inconvenient for Catalyst;
- the possible breach by the third-party contractors of Catalyst's agreements with them;
- the failure of third-party contractors to comply with applicable regulatory requirements;
- the possible mislabeling of clinical supplies, potentially resulting in the wrong dose amounts being supplied or active drug or placebo not being properly identified;
- the possibility of clinical supplies not being delivered to clinical sites on time, leading to clinical trial interruptions, or of drug supplies not being distributed to commercial vendors in a timely manner, resulting in lost sales; and
- the possible misappropriation of Catalyst's proprietary information, including Catalyst's trade secrets and know-how.

Catalyst may incur delays in product development resulting from the need to identify or qualify manufacturers for its product candidates. Catalyst's current and anticipated future dependence upon others for the manufacture of its product candidates may adversely affect its future profit margins and its ability to commercialize any products that receive marketing approval on a timely and competitive basis.

Catalyst and its contract manufacturers will be subject to significant regulation with respect to manufacturing Catalyst's products. The manufacturing facilities on which Catalyst will rely may not continue to meet regulatory requirements and have limited capacity.

All entities involved in the preparation of therapeutics for clinical studies or commercial sale, including any contract manufacturers for Catalyst's product candidates, are subject to extensive regulation. Components of a finished therapeutic product approved for commercial sale or used in late-stage clinical studies must be manufactured in accordance with GMP. These regulations govern manufacturing processes and procedures (including record keeping) and the implementation and operation of quality systems to control and assure the quality of investigational products and products approved for sale. Poor control of production processes can lead to the introduction of adventitious agents or other contaminants, or to inadvertent changes in the properties or stability of Catalyst's product candidates that may not be detectable in final product testing. Catalyst or its contract manufacturers must supply all necessary documentation in support of a Biologics License Application on a timely basis and must adhere to the FDA's good laboratory practices, or GLP, and GMP regulations

enforced by the FDA through its facilities inspection program. Catalyst's facilities and quality systems and the facilities and quality systems of some or all of its third-party contractors must pass a pre-approval inspection for compliance with the applicable regulations as a condition of regulatory approval of Catalyst's product candidates. In addition, the regulatory authorities may, at any time, audit or inspect a manufacturing facility involved with the preparation of Catalyst's product candidates or the associated quality systems for compliance with the regulations applicable to the activities being conducted. If these facilities do not pass a pre-approval plant inspection, FDA approval of the products will not be granted.

The regulatory authorities also may, at any time following approval of a product for sale, audit Catalyst's manufacturing facilities or those of its third-party contractors. If any such inspection or audit identifies a failure to comply with applicable regulations or if a violation of Catalyst's product specifications or applicable regulations occurs independent of such an inspection or audit, Catalyst or the relevant regulatory authority may require remedial measures that may be costly and/or time-consuming for Catalyst or a third-party to implement and that may include the temporary or permanent suspension of a clinical study or commercial sales or the temporary or permanent closure of a facility. Any such remedial measures imposed upon Catalyst or third parties with whom Catalyst contracts could materially harm Catalyst's business.

If Catalyst or any of its third-party manufacturers fail to maintain regulatory compliance, the FDA can impose regulatory sanctions including, among other things, refusal to approve a pending application for a new drug product or biologic product, or revocation of a pre-existing approval. As a result, Catalyst's business, financial condition and results of operations may be materially harmed.

Additionally, if supply from one approved manufacturer is interrupted, there could be a significant disruption in commercial supply. An alternative manufacturer would need to be qualified through a Biologics License Application supplement which could result in further delay. The regulatory agencies may also require additional studies if a new manufacturer is relied upon for commercial production. Switching manufacturers may involve substantial costs and is likely to result in a delay in Catalyst's desired clinical and commercial timelines.

These factors could cause the delay of clinical studies, regulatory submissions, required approvals or commercialization of Catalyst's product candidates, cause Catalyst to incur higher costs and prevent it from commercializing its products successfully. Furthermore, if Catalyst's suppliers fail to meet contractual requirements, and Catalyst is unable to secure one or more replacement suppliers capable of production at a substantially equivalent cost, Catalyst's clinical studies may be delayed or Catalyst could lose potential revenue.

Catalyst expects to rely on third parties to conduct its clinical trials, and those third parties may not perform satisfactorily, including failing to meet deadlines for the completion of such trials.

Catalyst expects to rely on third parties such as contract research organizations, or CROs, medical institutions and clinical investigators to enroll qualified patients and conduct, supervise and monitor clinical trials. Catalyst's reliance on these third parties for clinical development activities will reduce its control over these activities. Catalyst's reliance on these third parties, however, will not relieve Catalyst of its regulatory responsibilities, including ensuring that its clinical studies are conducted in accordance with good clinical practices, or GCP, and the investigational plan and protocols contained in the relevant regulatory application, such as an investigational new drug application, or IND. In addition, the CROs with whom Catalyst contracts may not complete activities on schedule, or may not conduct Catalyst's preclinical studies or clinical studies in accordance with regulatory requirements or Catalyst's clinical study design. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, Catalyst's efforts to obtain regulatory approvals for, and to commercialize, its product candidates may be delayed or prevented.

Risks related to employee matters, managing growth and Catalyst's business operations

Catalyst's future success depends on its ability to retain key executives and to attract, retain and motivate qualified personnel.

Catalyst's ability to compete in the highly competitive biotechnology and pharmaceutical industries depends upon its ability to attract and retain highly qualified managerial, scientific and medical personnel. Catalyst is highly dependent on its management and scientific personnel, including its President and Chief Executive Officer, Dr. Usman, its Chief Scientific Officer, Dr. Madison, and its Chief Financial Officer, Fletcher Payne. Catalyst does not maintain "key man" insurance policies on the lives of these individuals or the lives of any of its other employees. In addition, Catalyst will need to add personnel to its clinical development program in order to achieve its business objectives, including a Chief Medical Officer and head of manufacturing. The loss of the services of any of Catalyst's executive officers, other key employees, and Catalyst's inability to find suitable replacements, or Catalyst's inability to hire new clinical development and manufacturing personnel, could result in delays in product development and harm Catalyst's business.

Catalyst conducts operations at its facility in the San Francisco Bay Area. This region is headquarters to many other biopharmaceutical companies and many academic and research institutions. Competition for skilled personnel in Catalyst's market is intense and may limit Catalyst's ability to hire and retain highly qualified personnel on acceptable terms or at all.

To induce valuable employees to remain at Catalyst, in addition to salary and cash incentives, Catalyst has provided stock options that vest over time. The value to employees of stock options that vest over time may be significantly affected by movements in the combined company's stock price that are beyond Catalyst's control, and may at any time be insufficient to counteract more lucrative offers from other companies. Despite Catalyst's efforts to retain valuable employees, members of management and scientific and development teams may terminate their employment with us on short notice. Catalyst's employees are under at-will employment arrangements, which means that any of its employees could leave employment with Catalyst at any time, with or without notice. Failure to retain, replace or recruit personnel could harm Catalyst's business.

Catalyst expects to expand its development and regulatory capabilities and as a result, may encounter difficulties in managing its growth, which could disrupt its operations.

Catalyst expects to experience significant growth in the number of its employees and the scope of its operations, particularly in the areas of clinical development and, if any of its product candidates receive marketing approval, sales, marketing and distribution. To manage Catalyst's anticipated future growth, Catalyst must continue to implement and improve its managerial, operational and financial systems, expand its facilities and continue to recruit and train additional qualified personnel. Catalyst may not be able to effectively manage the expansion of its operations or recruit and train additional qualified personnel. The expansion of Catalyst's operations may lead to significant costs and may divert management and business development resources. Any inability to manage growth could delay the execution of Catalyst's business plans or disrupt its operations.

Catalyst's employees, principal investigators, consultants and commercial partners may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements and insider trading.

Catalyst is exposed to the risk of fraud or other misconduct by its employees, principal investigators, consultants and collaborators. Misconduct by these parties could include intentional failures to comply with the regulations of the FDA and non-U.S. regulators, provide accurate information to the FDA and non-U.S. regulators, comply with healthcare fraud and abuse laws and regulations in the United States and abroad, report financial information or data accurately or disclose unauthorized activities to Catalyst. In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or

prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Such misconduct could also involve the improper use of information obtained in the course of clinical studies, which could result in regulatory sanctions and cause serious harm to Catalyst's reputation. It is not always possible to identify and deter employee misconduct, and the precautions Catalyst takes to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting Catalyst from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. If any such actions are instituted against Catalyst and it is not successful in defending itself or asserting its rights, those actions could have a significant impact on its business, including the imposition of significant fines or other sanctions.

Catalyst will incur significant increased costs as a result of operating as a public company, and its management will be required to devote substantial time to new compliance initiatives.

Following completion of the merger and operating as a public company, Catalyst's business will incur significant legal, accounting and other expenses that Catalyst has not incurred as a private company. In addition, the Sarbanes-Oxley Act, as well as rules subsequently implemented by the Securities and Exchange Commission, or SEC, and The Nasdaq Global Select Market have imposed various requirements on public companies. In July 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act, or the Dodd-Frank Act, was enacted. There are significant corporate governance and executive compensation related provisions in the Dodd-Frank Act that require the SEC to adopt additional rules and regulations in these areas such as "say on pay" and proxy access. Stockholder activism, the current political environment and the current high level of government intervention and regulatory reform may lead to substantial new regulations and disclosure obligations, which may lead to additional compliance costs and impact the manner in which Catalyst operates its business in ways that are not currently anticipated. Catalyst's management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations will increase Catalyst's legal and financial compliance costs and will make some activities more time-consuming and costly. For example, Catalyst expects these rules and regulations to make it more difficult and more expensive for Catalyst to obtain director and officer liability insurance and Catalyst may be required to incur substantial costs to maintain its current levels of such coverage. Catalyst estimates that it will annually incur significant additional expenses to comply with the requirements imposed on it as a public company.

Catalyst or the third parties upon whom it depends may be adversely affected by earthquakes or other natural disasters and Catalyst's business continuity and disaster recovery plans may not adequately protect it from a serious disaster.

Earthquakes or other natural disasters could severely disrupt Catalyst's operations, and have a material adverse effect on its business, results of operations, financial condition and prospects. If a natural disaster, power outage or other event occurred that prevented Catalyst from using all or a significant portion of its headquarters, that damaged critical infrastructure, such as the manufacturing facilities of its third-party contract manufacturers, or that otherwise disrupted operations, it may be difficult or, in certain cases, impossible for Catalyst to continue its business for a substantial period of time. The disaster recovery and business continuity plans Catalyst has in place currently are limited and are unlikely to prove adequate in the event of a serious disaster or similar event. Catalyst may incur substantial expenses as a result of the limited nature of its disaster recovery and business continuity plans, which, particularly when taken together with its lack of earthquake insurance, could have a material adverse effect on its business.

Risks related to Catalyst's intellectual property

If Catalyst is unable to obtain, protect or enforce intellectual property rights related to its product candidates, it may not be able to compete effectively in its markets.

Catalyst relies upon a combination of patents, trade secret protection and confidentiality agreements to protect the intellectual property related to its product candidates. The strength of patents in the biotechnology and

pharmaceutical field involves complex legal and scientific questions and can be uncertain. Third parties may challenge the validity, enforceability or scope of Catalyst's patents, which may result in those patents being narrowed or invalidated. The patent applications that Catalyst owns may fail to result in issued patents with claims that cover its product candidates in the United States or in other foreign countries. Furthermore, even if they are unchallenged, Catalyst's patents and patent applications may not adequately protect Catalyst's intellectual property, provide exclusivity for Catalyst's product candidates or prevent others from designing around Catalyst's claims. Certain of Catalyst's patents also cover processes, for which enforcement can be especially difficult. Any of these outcomes could impair Catalyst's ability to prevent competition from third parties, which may have an adverse impact on Catalyst's business.

If the patents or patent applications Catalyst holds or has in-licensed with respect to its programs or product candidates are invalidated or fail to issue, if their breadth or strength of protection is threatened, or if they fail to provide meaningful exclusivity for Catalyst's product candidates, it could threaten Catalyst's ability to commercialize future products. Further, if Catalyst encounters delays in regulatory approvals, the period of time during which Catalyst could market a product candidate under patent protection could be reduced. In addition, patents have a limited lifespan. In the United States, the natural expiration of a patent is generally 20 years after it is filed. Various extensions may be available; however the life of a patent, and the protection it affords, is limited. Once the patent life has expired for a product, Catalyst may be open to competition from generic medications.

In addition to the protection afforded by patents, Catalyst relies on trade secret protection and confidentiality agreements to protect proprietary know-how that is not patentable or that Catalyst elects not to patent and other elements of Catalyst's product candidate discovery and development processes that involve proprietary know-how, information or technology that is not covered by patents. However, trade secrets can be difficult to protect. Catalyst seeks to protect its proprietary technology and processes, in part, by entering into confidentiality agreements with its employees, consultants, scientific advisors and contractors. Catalyst also seeks to preserve the integrity and confidentiality of its data and trade secrets by maintaining physical security of its premises and physical and electronic security of its information technology systems. While Catalyst has confidence in these individuals, organizations and systems, agreements or security measures may be breached, and Catalyst may not have adequate remedies for any breach. In addition, Catalyst's trade secrets may otherwise become known or be independently discovered by competitors.

Although Catalyst expects all of its employees and consultants to assign their inventions to Catalyst, and all of Catalyst's employees, consultants, advisors and any third parties who have access to its proprietary know-how, information or technology to enter into confidentiality agreements, Catalyst cannot provide any assurances that all such agreements have been duly executed or that Catalyst's trade secrets and other confidential proprietary information will not be disclosed or that competitors will not otherwise gain access to Catalyst's trade secrets or independently develop substantially equivalent information and techniques. Misappropriation or unauthorized disclosure of Catalyst's trade secrets could impair Catalyst's competitive position and may have a material adverse effect on Catalyst's business. Additionally, if the steps taken to maintain Catalyst's trade secrets are deemed inadequate, Catalyst may have insufficient recourse against third parties for misappropriating the trade secret. In addition, others may independently discover Catalyst's trade secrets and proprietary information.

Further, filing, prosecuting and defending patents on product candidates in all countries throughout the world would be prohibitively expensive, and Catalyst's intellectual property rights in some countries outside the United States can be less extensive than those in the United States. In addition, the laws of some foreign countries do not protect proprietary rights to the same extent or in the same manner as the laws of the United States. As a result, Catalyst may encounter significant problems in protecting and defending its intellectual property both in the United States and abroad. If Catalyst is unable to prevent material disclosure of the non-patented intellectual property related to its technologies to third parties, and there is no guarantee that Catalyst will have any such enforceable trade secret protection, Catalyst may not be able to establish or maintain a competitive advantage in its market, which could materially adversely affect its business, results of operations and financial condition.

Third-party claims of intellectual property infringement or challenging the inventorship or ownership of Catalyst's patents may prevent or delay Catalyst's development and commercialization efforts.

Catalyst's commercial success depends in part on its avoiding infringement of the patents and proprietary rights of third parties. There is a substantial amount of litigation, both within and outside the United States, involving patent and other intellectual property rights in the biotechnology and pharmaceutical industries, including patent infringement lawsuits, interferences, oppositions and *inter partes* reexamination proceedings before the U.S. Patent and Trademark Office, or U.S. PTO, and corresponding foreign patent offices. Numerous U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which Catalyst is pursuing development candidates. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that Catalyst's product candidates may be subject to claims of infringement of the patent rights of third parties.

Third parties may assert that the manufacture, use or sale of Catalyst's product candidates infringes patents held by such third parties, or that Catalyst is employing their proprietary technology without authorization. For example, Catalyst is aware of a patent that has issued in Europe (with counterparts in Australia, China, Japan, Poland, and Korea) and includes a claim that may read on CB 813d/PF-05280602. An opposition proceeding with respect to such patent is in process, and there can be no assurance of the outcome of such proceeding. There can also be no assurance whether or not the claims of such patent would be found to read on CB 813d/PF-05280602 even if a claim survives the opposition. There may be third-party patents or patent applications with claims to compositions of matter, materials, formulations, methods of manufacture or methods for treatment related to the use or manufacture of Catalyst's product candidates. Because patent applications can take many years to issue, there may be currently pending patent applications which may later result in issued patents that Catalyst's product candidates may infringe.

In addition, Catalyst has received confidential and proprietary information from third parties, and Catalyst employs individuals who were previously employed at other biotechnology or pharmaceutical companies. Catalyst may be subject to claims that it or its employees, consultants or independent contractors have inadvertently or otherwise used or disclosed confidential information of these third parties or Catalyst's employees' former employers. Litigation may be necessary to defend against these claims.

Parties making claims against Catalyst may obtain injunctive or other equitable relief, which could effectively block Catalyst's ability to further develop and commercialize one or more of its product candidates unless Catalyst redesigned infringing products (which may be impossible) or obtained a license under the applicable patents (which may not be available on commercially reasonable terms or at all), or until such patents expire.

Catalyst may be involved in lawsuits to protect or enforce its patents.

Competitors may infringe Catalyst's patents. To counter infringement or unauthorized use, Catalyst or its collaborators may be required to file infringement claims, which can be expensive and time-consuming. In addition, in an infringement proceeding, a court may decide that a patent of Catalyst is not valid, is unenforceable and/or is not infringed, or may refuse to stop the other party from using the technology at issue on the grounds that Catalyst's patents do not cover the technology in question. An adverse result in any litigation or defense proceedings could put one or more of Catalyst's patents at risk of being invalidated or interpreted narrowly and could put Catalyst's patent applications at risk of not issuing.

Interference proceedings provoked by third parties or brought by Catalyst may be necessary to determine the priority of inventions with respect to its patents or patent applications or those of Catalyst's licensors. An unfavorable outcome could require Catalyst to cease using the related technology or to attempt to license rights to it from the prevailing party. Catalyst's business could be harmed if the prevailing party does not offer Catalyst a license on commercially reasonable terms. Catalyst may not be able to prevent, alone or with its licensors, misappropriation of its intellectual property rights, particularly in countries where the laws may not protect those rights as fully as in the United States.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of Catalyst's confidential information could be compromised by disclosure during this type of litigation. There could also be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a material adverse effect on the price of the combined company's common stock.

Intellectual property litigation could cause Catalyst to spend substantial resources and distract its personnel from their normal responsibilities.

Even if resolved in Catalyst's favor, litigation or other legal proceedings relating to intellectual property claims, regardless of their merit, would cause Catalyst to incur significant expenses, and could distract its technical and management personnel from their normal responsibilities. In the event of a successful claim of infringement against Catalyst, it may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, in addition to paying royalties, redesign infringing products or obtain one or more licenses from third parties, which may be impossible or require substantial time and monetary expenditure. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of the combined company's common stock. Such litigation or proceedings could substantially increase Catalyst's operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. Catalyst may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Some of its competitors may be able to sustain the costs of such litigation or proceedings more effectively than Catalyst can because of their greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could compromise Catalyst's ability to compete in the marketplace.

Catalyst may need to license certain intellectual property from third parties, and such licenses may not be available or may not be available on commercially reasonable terms.

A third-party may hold intellectual property, including patent rights, that are important or necessary to the development of Catalyst's products. It may be necessary for us to use the patented or proprietary technology of third parties to commercialize Catalyst's products, in which case Catalyst would be required to obtain a license from these third parties on commercially reasonable terms, or Catalyst's business could be harmed, possibly materially.

Recent patent reform legislation could increase the uncertainties and costs surrounding the prosecution of Catalyst's patent applications and the enforcement or defense of its issued patents, and changes in U.S. patent law could diminish the value of patents in general, thereby impairing Catalyst's ability to protect its products.

On September 16, 2011, the Leahy-Smith America Invents Act, or the Leahy-Smith Act, was signed into law. The Leahy-Smith Act includes a number of significant changes to U.S. patent law, including provisions that affect the way patent applications will be prosecuted and may also affect patent litigation. The U.S. PTO is currently developing regulations and procedures to govern administration of the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act, and in particular, the first to file provisions, were enacted March 16, 2013. However, it is not clear what, if any, impact the Leahy-Smith Act will have on the operation of Catalyst's business. Further, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of Catalyst's patent applications and the enforcement or defense of its issued patents, all of which could have a material adverse effect on Catalyst's business and financial condition.

Risks related to regulatory approval of Catalyst's product candidates and other legal compliance matters

If Catalyst is not able to obtain, or if there are delays in obtaining, required regulatory approvals, Catalyst will not be able to commercialize its product candidates, and its ability to generate revenue will be materially impaired.

While Catalyst has multiple drug candidates in clinical and advanced preclinical development for a range of diseases, it has not yet submitted biologics license applications, or BLAs, for its engineered human proteases to the FDA, or similar approval filings to comparable foreign authorities. Submission of a BLA requires extensive preclinical and clinical data and supporting information that demonstrates the product candidate's safety, purity, and potency, also known as safety and effectiveness, for each desired indication. A BLA must also include significant information regarding the chemistry, manufacturing and controls for the product. One of Catalyst's product candidates, CB 813d/PF-05280602, has completed a Phase 1 clinical trial. However, failure of one or more clinical trials can occur at any stage in the clinical trial process. Accordingly, the regulatory pathway for Catalyst's product candidates is still uncertain, complex, and lengthy, and ultimately approval may not be obtained.

Catalyst may experience delays in completing planned clinical trials for a variety of reasons, including delays related to:

- the availability of financial resources to commence and complete the planned trials;
- inability to reach agreement on acceptable terms with prospective CROs and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- obtaining approval at each clinical trial site by an independent institutional review board, or IRB;
- recruiting suitable patients to participate in trials;
- having patients complete a trial or return for post-treatment follow-up;
- clinical trial sites deviating from trial protocol or dropping out of a trial;
- adding new clinical trial sites; and
- manufacturing sufficient quantities of qualified materials under cGMPs and applying them on a subject by subject basis for use in clinical trials.

Catalyst could also experience delays in obtaining approval if physicians encounter unresolved ethical issues associated with enrolling patients in clinical trials of its product candidates in lieu of prescribing existing treatments that have established safety and efficacy profiles given the serious nature of the diseases for the core indications for Catalyst's product candidates. Additionally, a clinical trial may be suspended or terminated by Catalyst, the IRBs for the institutions in which the trials are being conducted, the Data Monitoring Committee for the trial, or by the FDA or other regulatory authorities for a number of reasons, including failure to conduct the clinical trial in accordance with regulatory requirements or Catalyst's clinical protocols, inspection of the clinical trial operations or trial site by the FDA or other regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues, or adverse side effects, failure to demonstrate a benefit from using a product candidate, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial. If Catalyst experiences termination of, or delays in the completion of, any clinical trial of its product candidates, its ability to commercialize its product candidates will be harmed and its ability to generate revenue will be materially impaired. Additionally, delays in completing trials will increase costs, slow down Catalyst's product development and approval process, and impair Catalyst's ability to commence product sales and generate revenue. Many of the factors that could create or lead to a delay in the commencement or completion of clinical trials may ultimately lead to the denial of regulatory approval for Catalyst's product candidates.

The FDA may disagree with Catalyst's regulatory plan and Catalyst may fail to obtain regulatory approval of its product candidates.

The results of clinical trials conducted by Catalyst may not support regulatory approval of its product candidates. Catalyst's product candidates could ultimately fail to receive regulatory approval for many reasons, including the following:

- the FDA or comparable foreign regulatory authorities may disagree with the design or implementation of Catalyst's clinical trials;
- Catalyst may be unable to demonstrate to the satisfaction of the FDA or comparable foreign authorities that its product candidates are safe and effective for any of their proposed indications;
- the results of clinical trials may not meet the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval;
- Catalyst may be unable to demonstrate that its product candidates' clinical and other benefits outweigh their safety risks;
- the FDA or comparable foreign regulatory authorities may disagree with Catalyst's interpretation of data from preclinical studies or clinical trials;
- the data collected from clinical trials of Catalyst's product candidates may not be sufficient to the satisfaction of the FDA or comparable foreign regulatory authorities to support the submission of a BLA or other comparable submission in foreign jurisdictions or to obtain regulatory approval in the United States or elsewhere;
- the FDA or comparable foreign regulatory authorities may fail to approve the manufacturing processes or facilities of third-party manufacturers with which Catalyst contracts for clinical and commercial supplies; and
- the approval policies or regulations of the FDA or comparable foreign regulatory authorities may significantly change in a manner rendering Catalyst's clinical data insufficient for approval.

Catalyst's relationships with customers and third-party payors will be subject to applicable anti-kickback, fraud and abuse and other healthcare laws and regulations, which could expose Catalyst to criminal sanctions, civil penalties, contractual damages, reputational harm and diminished profits and future earnings

Healthcare providers, physicians and third-party payors will play a primary role in the recommendation and prescription of any product candidates for which Catalyst obtains marketing approval. Catalyst's future arrangements with third-party payors and customers may expose Catalyst to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which it would market, sell and distribute its products. As a pharmaceutical company, even though Catalyst does not and may not control referrals of healthcare services or bill directly to Medicare, Medicaid or other third-party payors, federal and state healthcare laws and regulations pertaining to fraud and abuse and patients' rights are and will be applicable to Catalyst's business. These regulations include:

- the Federal Healthcare Anti-Kickback Statute, which prohibits, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made under a federal healthcare program such as Medicare and Medicaid, and which will constrain Catalyst's marketing practices and the marketing practices of its licensees, educational programs, pricing policies, and relationships with healthcare providers or other entities;
- the federal physician self-referral prohibition, commonly known as the Stark Law, which prohibits physicians from referring Medicare or Medicaid patients to providers of "designated health services"

with whom the physician or a member of the physician's immediate family has an ownership interest or compensation arrangement, unless a statutory or regulatory exception applies;

- federal false claims laws that prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment from Medicare, Medicaid, or other government reimbursement programs that are false or fraudulent, and which may expose entities that provide coding and billing advice to customers to potential criminal and civil penalties, including through civil whistleblower or qui tam actions, and including as a result of claims presented in violation of the Federal Healthcare Anti-Kickback Statute, the Stark Law or other healthcare-related laws, including laws enforced by the FDA;
- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program and also created federal criminal laws that prohibit knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statements in connection with the delivery of or payment for healthcare benefits, items or services, and which as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, also imposes obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;
- federal physician sunshine requirements under the Affordable Care Act, which requires manufacturers of drugs, devices, biologics and medical supplies to report annually to HHS information related to payments and other transfers of value to physicians, other healthcare providers, and teaching hospitals, and ownership and investment interests held by physicians and other healthcare providers and their immediate family members and applicable group purchasing organizations;
- the Federal Food, Drug, and Cosmetic Act, which, among other things, strictly regulates drug product marketing, prohibits manufacturers from marketing drug products for off-label use and regulates the distribution of drug samples; and
- state and foreign law equivalents of each of the above federal laws, such as anti-kickback and false claims laws, which may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers, state laws requiring pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government and which may require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures, and state and foreign laws governing the privacy and security of health information in specified circumstances, many of which differ from each other in significant ways and often are not preempted by federal laws such as HIPAA, thus complicating compliance efforts.

Efforts to ensure that Catalyst's business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that Catalyst's business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If Catalyst's operations are found to be in violation of any of these laws or any other governmental regulations that may apply to it, Catalyst may be subject to significant civil, criminal and administrative penalties, damages, fines, imprisonment, exclusion from government funded healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of its operations. If any physicians or other healthcare providers or entities with whom Catalyst expects to do business are found to not be in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs.

Recently enacted and future legislation may increase the difficulty and cost for Catalyst to obtain marketing approval of and commercialize its product candidates and affect the prices for Catalyst's product candidates.

In the United States and some foreign jurisdictions, there have been a number of legislative and regulatory changes and proposed changes regarding the healthcare system that could prevent or delay marketing approval of Catalyst's product candidates, restrict or regulate post-approval activities and affect Catalyst's ability to profitably sell any product candidates for which it obtains marketing approval.

In the United States, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or the MMA, changed the way Medicare covers and pays for pharmaceutical products. The legislation expanded Medicare coverage for drug purchases by the elderly and introduced a new reimbursement methodology based on average sales prices for physician-administered drugs. In addition, this legislation provided authority for limiting the number of drugs that will be covered in any therapeutic class. Cost reduction initiatives and other provisions of this legislation could decrease the coverage and price that Catalyst receives for any approved products. While the MMA applies only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own reimbursement rates. Therefore, any reduction in reimbursement that results from the MMA may result in a similar reduction in payments from private payors.

More recently, in March 2010, President Obama signed into law the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act, or collectively the PPACA, a sweeping law intended to broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add new transparency requirements for the healthcare and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms.

Among the provisions of the PPACA of importance to Catalyst's potential product candidates are the following:

- an annual, nondeductible fee on any entity that manufactures or imports specified branded prescription drugs and biologic agents;
- an increase in the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program;
- expansion of healthcare fraud and abuse laws, including the False Claims Act and the Anti-Kickback Statute, new government investigative powers, and enhanced penalties for noncompliance;
- a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts off negotiated prices;
- extension of manufacturers' Medicaid rebate liability;
- expansion of eligibility criteria for Medicaid programs;
- expansion of the entities eligible for discounts under the Public Health Service pharmaceutical pricing program;
- new requirements to report financial arrangements with physicians and teaching hospitals;
- a new requirement to annually report drug samples that manufacturers and distributors provide to physicians; and
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research.

In addition, other legislative changes have been proposed and adopted since the PPACA was enacted. These changes included aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, starting in 2013. In January 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, reduced Medicare payments to several providers, and increased the statute of limitations

period for the government to recover overpayments to providers from three to five years. These new laws may result in additional reductions in Medicare and other healthcare funding.

Catalyst expects that the PPACA, as well as other healthcare reform measures that may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that Catalyst or its collaborators may receive for any approved product. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent Catalyst from being able to generate revenue, attain profitability, or commercialize its products.

Legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical products. Catalyst cannot be sure whether additional legislative changes will be enacted, or whether the FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of Catalyst's product candidates, if any, may be. In addition, increased scrutiny by the U.S. Congress of the FDA's approval process may significantly delay or prevent marketing approval, as well as subject Catalyst to more stringent product labeling and post-marketing testing and other requirements.

If Catalyst fails to comply with environmental, health and safety laws and regulations, Catalyst could become subject to fines or penalties or incur costs that could harm its business.

Catalyst is subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. From time to time and in the future, Catalyst's operations may involve the use of hazardous and flammable materials, including chemicals and biological materials, and may also produce hazardous waste products. Even if Catalyst contracts with third parties for the disposal of these materials and waste products, Catalyst cannot completely eliminate the risk of contamination or injury resulting from these materials. In the event of contamination or injury resulting from the use or disposal of Catalyst's hazardous materials, Catalyst could be held liable for any resulting damages, and any liability could exceed its resources. Catalyst also could incur significant costs associated with civil or criminal fines and penalties for failure to comply with such laws and regulations.

Catalyst maintains workers' compensation insurance to cover it for costs and expenses it may incur due to injuries to its employees resulting from the use of hazardous materials, but this insurance may not provide adequate coverage against potential liabilities. However, Catalyst does not maintain insurance for environmental liability or toxic tort claims that may be asserted against it.

In addition, Catalyst may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. Current or future environmental laws and regulations may impair Catalyst's research, development or production efforts, which could adversely affect its business, financial condition, results of operations or prospects. In addition, failure to comply with these laws and regulations may result in substantial fines, penalties or other sanctions.

Catalyst faces potential product liability, and, if successful claims are brought against it, Catalyst may incur substantial liability and costs. If the use of Catalyst's product candidates harms patients, or is perceived to harm patients even when such harm is unrelated to Catalyst's product candidates, regulatory approvals could be revoked or otherwise negatively impacted and Catalyst could be subject to costly and damaging product liability claims.

The use of Catalyst's product candidates in clinical trials and the sale of any products for which it obtains marketing approval exposes Catalyst to the risk of product liability claims. Product liability claims might be brought against Catalyst by consumers, healthcare providers, pharmaceutical companies or others selling or otherwise coming into contact with Catalyst's products. There is a risk that Catalyst's product candidates may

induce adverse events. If Catalyst cannot successfully defend against product liability claims, it could incur substantial liability and costs. In addition, regardless of merit or eventual outcome, product liability claims may result in:

- impairment of Catalyst's business reputation;
- withdrawal of clinical trial participants;
- costs due to related litigation;
- distraction of management's attention from Catalyst's primary business;
- substantial monetary awards to patients or other claimants;
- the inability to commercialize Catalyst's product candidates; and
- decreased demand for Catalyst's product candidates, if approved for commercial sale.

Catalyst carries product liability insurance of $5,000,000 per occurrence and $5,000,000 aggregate limit. Catalyst believes its product liability insurance coverage is sufficient in light of its current clinical programs; however, Catalyst may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect it against losses due to liability. If and when Catalyst obtains marketing approval for product candidates, it intends to expand its insurance coverage to include the sale of commercial products; however, Catalyst may be unable to obtain product liability insurance on commercially reasonable terms or in adequate amounts. On occasion, large judgments have been awarded in class action lawsuits based on drugs or medical treatments that had unanticipated adverse effects. A successful product liability claim or series of claims brought against Catalyst could cause the combined company's stock price to decline and, if judgments exceed insurance coverage, could adversely affect Catalyst's results of operations and business.

Patients with the diseases targeted by Catalyst's product candidates are often already in severe and advanced stages of disease and have both known and unknown significant pre-existing and potentially life-threatening health risks. During the course of treatment, patients may suffer adverse events, including death, for reasons that may be related to Catalyst's product candidates. Such events could subject Catalyst to costly litigation, require it to pay substantial amounts of money to injured patients, delay, negatively impact or end its opportunity to receive or maintain regulatory approval to market its products, or require it to suspend or abandon its commercialization efforts. Even in a circumstance in which Catalyst does not believe that an adverse event is related to Catalyst's products, the investigation into the circumstance may be time-consuming or inconclusive. These investigations may interrupt Catalyst's sales efforts, delay its regulatory approval process in other countries, or impact and limit the type of regulatory approvals its product candidates receive or maintain. As a result of these factors, a product liability claim, even if successfully defended, could have a material adverse effect on Catalyst's business, financial condition or results of operations.

Risks related to commercialization of Catalyst's product candidates

Even if any of Catalyst's product candidates receives marketing approval, it may fail to achieve the degree of market acceptance by physicians, patients, third-party payors and others in the medical community necessary for commercial success.

If any of Catalyst's product candidates receives marketing approval, it may nonetheless fail to gain sufficient market acceptance by physicians, patients, third-party payors and others in the medical community. For example, current hemophilia treatments like NovoSeven are well established in the medical community, and doctors may continue to rely on these treatments. If Catalyst's product candidates do not achieve an adequate level of acceptance, Catalyst may not generate significant product revenues and it may not become profitable. The degree of market acceptance of Catalyst's product candidates, if approved for commercial sale, will depend on a number of factors, including:

- the efficacy and potential advantages compared to alternative treatments;
- Catalyst's ability to offer its products for sale at competitive prices;

- the convenience and ease of administration compared to alternative treatments;
- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;
- the strength of marketing and distribution support;
- the availability of third-party coverage and adequate reimbursement;
- the prevalence and severity of any side effects; and
- any restrictions on the use of Catalyst's products together with other medications.

If Catalyst is unable to establish sales, marketing and distribution capabilities, it may not be successful in commercializing its product candidates if and when they are approved.

Catalyst has not yet established a sales, marketing or product distribution infrastructure for its other product candidates, which are still in preclinical or early clinical development. Except for ISU Abxis' potential rights to commercialize CB 2679d/ISU 304 in Korea, Catalyst generally expects to retain commercial rights for the company's hemophilia product candidates. Catalyst believes that it will be possible to access the United States hemophilia market through a focused, specialized sales force. However, Catalyst has not yet developed a commercial strategy for hemophilia products outside of the United States, or for any other of its product candidates. To achieve commercial success for any product for which Catalyst obtains marketing approval, it will need to establish a sales and marketing organization within the United States, and develop a strategy for sales outside of the United States.

There are risks involved with establishing internal sales, marketing and distribution capabilities. For example, recruiting and training a sales force is expensive and time consuming and could delay any product launch. If the commercial launch of a product candidate for which Catalyst recruits a sales force and establishes marketing capabilities is delayed or does not occur for any reason, Catalyst would have prematurely or unnecessarily incurred these commercialization expenses. This may be costly, and Catalyst's investment would be lost if it cannot retain or reposition its sales and marketing personnel. If Catalyst is unable to establish its sales, marketing and distribution capabilities and enter into additional arrangements with third parties to perform these services, its product revenues and profitability, if any, are likely to be lower than if Catalyst were to market, sell and distribute any products that it develops itself.

Catalyst faces substantial competition, which may result in others discovering, developing or commercializing products before or more successfully than Catalyst does.

The biotechnology and pharmaceutical industries are characterized by rapidly advancing technologies, intense competition, and a strong emphasis on proprietary products. Catalyst faces potential competition from many different sources, including major pharmaceutical, specialty pharmaceutical and biotechnology companies, academic institutions and governmental agencies, and public and private research institutions. Any product candidates that Catalyst successfully develops and commercializes will compete with existing therapies and new therapies that may become available in the future.

Specifically, there are a large number of companies developing or marketing treatments for hemophilia, including many major pharmaceutical and biotechnology companies, including Novo Nordisk, which has developed NovoSeven, a human recombinant coagulation Factor VIIa indicated for treatment of bleeding episodes that has been approved for use in treatment of hemophilia A or B patients with inhibitors to Factor VIII or Factor IX and in patients with Factor VII deficiency and Glanzmann's thrombasthenia, Baxter, which has developed BAX817, a biosimilar of NovoSeven that recently completed a Phase 3 clinical trial, Roche, which is developing a biospecific Factor VIII-Factor IX monoclonal antibody, and Alnylam, which is developing an investigational RNAi therapeutic targeting antithrombin for the treatment of hemophilia.

Catalyst's commercial opportunity in different indications could be reduced or eliminated if competitors develop and market products that are more convenient to use, more effective, less expensive, and safer to use than Catalyst's products. Furthermore, if competitors gain FDA approval faster than Catalyst does, Catalyst may be unable to establish a strong market presence or to gain market share. The key competitive factors affecting the success of all of Catalyst's product candidates, if approved, are likely to be their efficacy, safety, convenience, price, the level of generic competition, and the availability of reimbursement from government and other third-party payors.

Many of the companies against which Catalyst is competing or against which Catalyst may compete in the future have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved products than Catalyst does. Mergers and acquisitions in the pharmaceutical, biotechnology and diagnostic industries may result in even more resources being concentrated among a smaller number of Catalyst's competitors. Smaller or early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These competitors also compete with Catalyst in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, Catalyst's programs.

Even if Catalyst is able to commercialize any product candidates, the products may become subject to unfavorable pricing regulations, third-party reimbursement practices or healthcare reform initiatives, which would harm Catalyst's business.

The regulations that govern marketing approvals, pricing, coverage and reimbursement for new drug products vary widely from country to country. Current and future legislation may significantly change the approval requirements in ways that could involve additional costs and cause delays in obtaining approvals. Some countries require approval of the sale price of a drug before it can be marketed. In many countries, the pricing review period begins after marketing or product licensing approval is granted. In some foreign markets, prescription pharmaceutical pricing remains subject to continuing governmental control even after initial approval is granted. As a result, Catalyst might obtain marketing approval for a product in a particular country, but then be subject to price regulations that delay its commercial launch of the product, possibly for lengthy time periods, and negatively impact the revenues Catalyst is able to generate from the sale of the product in that country. Adverse pricing limitations may hinder Catalyst's ability to recoup its investment in one or more product candidates, even if Catalyst's product candidates obtain marketing approval.

Catalyst's ability to commercialize any product candidates successfully also will depend in part on the extent to which coverage and adequate reimbursement for these products and related treatments will be available from government health administration authorities, private health insurers and other organizations. Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which medications they will pay for and establish reimbursement levels. A primary trend in the U.S. healthcare industry and elsewhere is cost containment. Government authorities and third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications. Increasingly, third-party payors are requiring that drug companies provide them with predetermined discounts from list prices and are challenging the prices charged for medical products. Coverage and reimbursement may not be available for any product that Catalyst or its collaborators commercialize and, even if these are available, the level of reimbursement may not be satisfactory. Reimbursement may affect the demand for, or the price of, any product candidate that receives marketing approval. Obtaining and maintaining adequate reimbursement for Catalyst's products may be difficult. Catalyst may be required to conduct expensive pharmacoeconomic studies to justify coverage and reimbursement or the level of reimbursement relative to other therapies. If coverage and adequate reimbursement are not available or reimbursement is available only to limited levels, Catalyst may not be able to successfully commercialize any product candidate for which Catalyst obtains marketing approval.

There may be significant delays in obtaining reimbursement for newly approved drugs, and coverage may be more limited than the purposes for which the drug is approved by the FDA or similar regulatory authorities outside the United States. Moreover, eligibility for reimbursement does not imply that a drug will be paid for in all cases or at a rate that covers Catalyst's costs, including research, development, manufacture, sale and distribution. Interim reimbursement levels for new drugs, if applicable, may also not be sufficient to cover Catalyst's costs and may not be made permanent. Reimbursement rates may vary according to the use of the drug and the clinical setting in which it is used, may be based on reimbursement levels already set for lower cost drugs and may be incorporated into existing payments for other services. Net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States. Third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement policies. Catalyst's inability to promptly obtain coverage and adequate reimbursement rates from both government-funded and private payors for any approved products that Catalyst develops could have a material adverse effect on its operating results, ability to raise capital needed to commercialize products and overall financial condition.

The insurance coverage and reimbursement status of newly-approved products is uncertain. Failure to obtain or maintain adequate coverage and reimbursement for new or current products could limit Catalyst's ability to market those products and decrease its ability to generate revenue.

The availability and extent of reimbursement by governmental and private payors is essential for most patients to be able to afford expensive treatments. Sales of Catalyst's product candidates will depend substantially, both domestically and abroad, on the extent to which the costs of its product candidates will be paid by health maintenance, managed care, pharmacy benefit and similar healthcare management organizations, or reimbursed by government health administration authorities, private health coverage insurers and other third-party payors. If reimbursement is not available, or is available only to limited levels, Catalyst may not be able to successfully commercialize its product candidates. Even if coverage is provided, the approved reimbursement amount may not be high enough to allow Catalyst to establish or maintain pricing sufficient to realize a sufficient return on its investment.

There is significant uncertainty related to the insurance coverage and reimbursement of newly approved products. Moreover, increasing efforts by governmental and third-party payors, in the United States and abroad, to cap or reduce healthcare costs may cause such organizations to limit both coverage and level of reimbursement for new products approved and, as a result, they may not cover or provide adequate payment for Catalyst's product candidates. Catalyst expects to experience pricing pressures in connection with the sale of any of its product candidates, due to the trend toward managed healthcare, the increasing influence of health maintenance organizations and additional legislative changes. The downward pressure on healthcare costs in general has become very intense. As a result, increasingly high barriers are being erected to the entry of new products.

If the market opportunities for Catalyst's product candidates are smaller than expected, Catalyst's revenues may be adversely affected and Catalyst's business may suffer.

Catalyst focuses its research and product development on hemostasis and inflammation treatment. Catalyst's projections of both the number of people who suffer from related conditions, as well as the subset of people with these conditions who have the potential to benefit from treatment with Catalyst's product candidates, are based on estimates. These estimates may prove to be incorrect and new studies may change the estimated incidence or prevalence of these diseases. The number of patients in the United States, Europe and elsewhere may turn out to be lower than expected, may not be otherwise amenable to treatment with Catalyst's products, or new patients may become increasingly difficult to identify or gain access to, all of which would adversely affect Catalyst's results of operations and its business.

Risks Related to an Investment in Targacept's Common Stock and the Redeemable Convertible Notes

Following the merger, the concentration of the combined company's capital stock ownership with its executive officers and directors, and their respective affiliates, will limit your ability to influence corporate matters.

Significant stockholders of the combined company, acting together, after completion of the merger, will have the ability to affect matters submitted to Targacept's stockholders for approval, including the approval of significant transactions. This concentration of ownership may have the effect of delaying, deferring or preventing a strategic transaction, even if such a transaction would benefit other stockholders. As a result, the market price of Targacept's common stock could be adversely affected.

The market price of Targacept's common stock has historically been highly volatile and the merger may result in significant stock price and trading volume fluctuations.

The trading price of Targacept's common stock has historically been highly volatile, and the merger may result in significant stock price and trading volume fluctuations. Targacept cannot predict precisely the impact the announcement, pendency or completion of the merger will have on its stock price. Additionally, the stock market in general has experienced extreme price and volume fluctuations. The market prices of securities of pharmaceutical, biopharmaceutical and biotechnology companies in particular have been extremely volatile and have experienced fluctuations that have often been unrelated or disproportionate to operating performance. Factors giving rise to this volatility may include:

- regulatory developments in both the United States and abroad;
- developments concerning proprietary rights, including patents and litigation matters;
- disclosure of new collaborations or other strategic transactions;
- public concern about the safety or efficacy of product candidates or technology, their components, or related technology or new technologies generally;
- public announcements by competitors or others regarding new products or new product candidates; and
- general market conditions and comments by securities analysts and investors.

Fluctuations in operating results could adversely affect the price of Targacept's common stock.

Targacept's and, following the merger, the combined company's, operating results are likely to fluctuate significantly from quarter to quarter and year to year. These fluctuations could cause Targacept's stock price to decline. Some of the factors that may cause operating results to fluctuate on a period-to-period basis include the scope, progress, duration results and costs of preclinical and clinical development programs, as well as non-clinical studies and assessments of product candidates and programs, restructuring costs, implementation or termination of collaboration, licensing, manufacturing or other material agreements with third parties, non-recurring revenue or expenses under any such agreement, the cost, timing and outcomes of regulatory compliance, approvals or other regulatory actions and general and industry-specific economic conditions, particularly as affects the pharmaceutical, biopharmaceutical or biotechnology industries in the United States. Period-to-period comparisons of Targacept's historical and future financial results may not be meaningful, and investors should not rely on them as an indication of future performance. Fluctuating losses may fail to meet the expectations of securities analysts or investors. Failure to meet these expectations may cause the price of Targacept's common stock to decline.

If Targacept's stockholders sell a substantial number of shares of its common stock in the public market, Targacept's stock price may decline.

Targacept's current trading volumes are modest, and sales of a substantial number of shares of Targacept's common stock in the public market, or the perception that these sales could occur, could cause the market price to decline. Such sales also might make it more difficult for Targacept to sell equity securities in the future at a

time and at a price that it deems appropriate. The shares of Targacept's common stock being registered in connection with the merger and this proxy statement/prospectus/information statement will be freely tradable without restriction under the Securities Act of 1933, as amended, or the Securities Act. As a condition to the closing of the merger, certain Catalyst securityholders entered into lock-up agreements, pursuant to which the securityholders have agreed not to, except in limited circumstances, sell, assign, transfer, tender, or otherwise dispose of, shares of Targacept common stock, including, as applicable, shares received in the merger and issuable upon exercise of certain warrants and options, from the effective date of the merger until 120 days after the closing date of the merger. These Catalyst stockholders beneficially hold in the aggregate 109,250,736 outstanding shares of Catalyst common stock on an as-converted basis. All of the shares of Targacept common stock issuable to such holders in the merger may be sold in the public market 120 days after the effective time of the merger, limited only to the extent provided under applicable federal securities laws. Further, as a part of the Pre-Closing Dividend, Targacept will issue $37.0 million in aggregate principal amount of redeemable convertible notes. At the option of the noteholders, those notes will be redeemable at any time within 30 months following the closing or convertible into shares of Targacept at a conversion rate of $9.19 per share. Conversion of these notes into stock of Targacept will cause dilution to other holders of Targacept common stock and all such stock may be sold in the public market after conversion, which may lead to a decline in the market price of Targacept's common stock. In addition, Targacept may, in the future, issue additional shares of its common stock as compensation to its employees, directors or consultants, in connection with strategic alliances, collaborations, acquisitions or other transactions or to raise capital. Accordingly, sales of a substantial number of shares of Targacept's common stock in the public market could occur at any time.

Following the merger, any delays in the timing for obtaining results from the clinical studies of the combined company could result in a decline in the value of the redeemable convertible notes.

Any delays in the timing of the combined company's clinical studies may result in such clinical studies not being completed within the 30 month term of the notes, thereby eliminating the ability of the noteholders to make their decision on whether or not to convert their notes into common stock of the combined company based on the results of such clinical studies. This may result in the notes having less value or expiring unexercised.

Anti-takeover provisions in Targacept's charter documents and provisions of Delaware law may make an acquisition more difficult and could result in the entrenchment of management.

Targacept is incorporated in Delaware. Anti-takeover provisions of Delaware law and Targacept's charter documents may make a change in control or efforts to remove management more difficult. Also, under Delaware law, Targacept's board of directors may adopt additional anti-takeover measures. The existence of the following provisions of Delaware law and Targacept's restated certificate of incorporation and amended and restated bylaws could limit the price that investors might be willing to pay in the future for shares of Targacept's common stock.

Targacept's restated certificate of incorporation authorizes its board of directors to issue up to 5,000,000 shares of preferred stock and to determine the terms of those shares of stock without any further action by its stockholders. If the board of directors exercises this power to issue preferred stock, it could be more difficult for a third-party to acquire a majority of Targacept's outstanding voting stock and vote the stock they acquire to remove management or directors.

Targacept's restated certificate also provides staggered terms for the members of its board of directors, and that directors may be removed by stockholders only by vote of the holders of 66 2/3% of voting shares then outstanding. In addition, Targacept's amended and restated bylaws do not permit stockholders to call special or annual meetings of stockholders, or to act by written consent without a meeting. These provisions may prevent stockholders from replacing the entire board in a single proxy contest, making it more difficult for a third-party to acquire control without the consent of the Targacept board of directors. These provisions could also delay the removal of management by the board of directors with or without cause.

As a Delaware corporation, Targacept is also subject to certain Delaware anti-takeover provisions. Under Delaware law, a publicly-held corporation may not engage in a business combination with any holder of 15% or more of its voting stock unless the holder has held the stock for three years or, among other things, the board of directors has approved the transaction. Targacept's board of directors could rely on Delaware law to prevent or delay an acquisition. For a description of Targacept's capital stock, see "Description of Targacept Capital Stock" beginning on page 290.

Holders of the redeemable convertible notes will be required to pay U.S. federal income tax on the notes even though the notes will not pay cash interest.

Because the notes do not pay cash interest, Targacept intends to treat the notes as issued with "original issue discount" for U.S. federal income tax purposes, and holders will be required to include the original issue discount in gross income on a constant yield to maturity basis. The application of the original issue discount rules to the notes is complex. See "The Merger—Material U.S. Federal Income Tax Consequences of the Ownership of the Redeemable Convertible Notes" beginning on page 107.

Holders of the redeemable convertible notes may be subject to tax if Targacept makes or fails to make certain adjustments to the conversion rate of the notes even though such shareholder may not receive a corresponding cash distribution.

The conversion rate of the notes is subject to adjustment in certain circumstances, including the payment of cash dividends. Adjustments to the conversion rate of the notes (or failures to make adjustments) that have the effect of increasing a noteholder's proportionate interest in Targacept's assets or earnings may in some circumstances result in a deemed distribution to for U.S. federal income tax purposes, notwithstanding the fact that such holder does not receive an actual distribution of cash or property. See "The Merger—Material U.S. Federal Income Tax Consequences of the Ownership of the Redeemable Convertible Notes" beginning on page 107. If a holder is a non-U.S. holder (as defined in "The Merger—Material U.S. Federal Income Tax Consequences of the Ownership of the Redeemable Convertible Notes"), such holder may be subject to U.S. federal withholding tax in connection with such deemed distribution, which may be set off against subsequent payments of cash and common stock payable on the notes (or, in certain circumstances, against any payments on Targacept's common stock). See "The Merger—Material U.S. Federal Income Tax Consequences of the Ownership of the Redeemable Convertible Notes" beginning on page 107.

FORWARD-LOOKING STATEMENTS

This proxy statement/prospectus/information statement and the documents incorporated by reference into this proxy statement/prospectus/information statement contain forward-looking statements relating to Targacept, Catalyst and the merger. These forward-looking statements are based on current expectations and beliefs and involve numerous risks and uncertainties that could cause actual results to differ materially from expectations. These forward-looking statements should not be relied upon as predictions of future events as we cannot assure you that the events or circumstances reflected in these statements will be achieved or will occur. You can identify forward-looking statements by the use of forward-looking terminology including “believes,” “expects,” “may,” “will,” “should,” “seeks,” “intends,” “plans,” “pro forma,” “estimates,” or “anticipates” or the negative of these words and phrases or other variations of these words and phrases or comparable terminology. All statements other than statements of historical fact are statements that could be deemed forward-looking statements. For example, forward-looking statements include any statements regarding the strategies, prospects, plans, expectations or objectives of management of Targacept or Catalyst for future operations, the progress, scope or duration of the development of product candidates or programs, the benefits that may be derived from product candidates or the commercial or market opportunity in any target indication, the ability of Targacept or Catalyst to protect intellectual property rights, the anticipated operations, financial position, revenues, costs or expenses of Targacept, Catalyst or the combined company, statements regarding future economic conditions or performance, statements of belief and any statement of assumptions underlying any of the foregoing. Forward looking statements may also include any statements regarding the approval and closing of the merger, including the timing of the merger, Targacept’s ability to solicit a sufficient number of proxies to approve the merger, other conditions to the completion of the merger and the Exchange Ratio as of the closing of the merger, the expected benefits of the merger, and any statement of assumptions underlying any of the foregoing.

For a discussion of the factors that may cause Targacept, Catalyst or the combined company’s actual results, performance or achievements to differ materially from any future results, performance or achievements expressed or implied in such forward-looking statements, or for a discussion of risk associated with the ability of Targacept and Catalyst to complete the merger and the effect of the merger on the business of Targacept, Catalyst and the combined company, see “ Risk Factors” beginning on page 18. Additional factors that could cause actual results to differ materially from those expressed in the forward-looking statements are discussed in reports filed with the SEC by Targacept. See “Where You Can Find More Information” beginning on page 325. There can be no assurance that the merger will be completed, or if it is completed, that it will close within the anticipated time period or that the expected benefits of the merger will be realized.

If any of these risks or uncertainties materializes or any of these assumptions proves incorrect, the results of Targacept, Catalyst or the combined company could differ materially from the forward-looking statements. All forward-looking statements in this proxy statement/prospectus/information statement are current only as of the date on which the statements were made. Targacept and Catalyst do not undertake any obligation to publicly update any forward-looking statement to reflect events or circumstances after the date on which any statement is made or to reflect the occurrence of unanticipated events.

THE ANNUAL MEETING OF TARGACEPT STOCKHOLDERS

Date, Time and Place

The Targacept annual stockholders meeting will be held on [●], 2015, at [●], commencing at [●] local time. Targacept is sending this proxy statement/prospectus/information statement to its stockholders in connection with the solicitation of proxies by the Targacept board of directors for use at the Targacept annual stockholders meeting and any adjournments or postponements of the annual meeting. This proxy statement/prospectus/information statement is first being sent to stockholders of Targacept on or about [●], 2015.

Purposes of the Targacept Annual Meeting

The purposes of the Targacept annual stockholders meeting are:

1) To approve the Agreement and Plan of Merger dated as of March 5, 2015, as amended on May 6 and May 13, 2015, by and among Targacept, Talos Merger Sub, Inc. and Catalyst, a copy of which is attached as Annex A to this proxy statement/prospectus/information statement, and the issuance of shares of Targacept common stock to Catalyst stockholders and the issuance of redeemable convertible notes of Targacept to Targacept stockholders by virtue of the merger contemplated by the Merger Agreement;

2) To authorize an amendment to Targacept's restated certificate of incorporation to effect a reverse stock split of Targacept's issued and outstanding shares of common stock, pursuant to which seven (7) shares of outstanding Targacept common stock would be combined and reclassified into one share of Targacept common stock, in the form attached as Annex E to the accompanying proxy statement/prospectus/information statement;

3) To approve the amendment to the restated certificate of incorporation of Targacept to change the name "Targacept, Inc." to "Catalyst Biosciences, Inc." in the form attached as Annex E to the accompanying proxy statement/prospectus/information statement;

4) To approve the Targacept 2015 Stock Incentive Plan, a copy of which is attached as Annex F, and the reservation of shares of common stock for issuance thereunder;

5) To elect one Class III director to Targacept's board of directors for a term of three years; provided, however, that if the merger is completed, the Targacept board of directors will consist of the seven persons identified in this proxy statement/prospectus/information statement;

6) To approve, on an advisory basis, the compensation of Targacept's named executive officers as disclosed in this proxy statement/prospectus/information statement pursuant to the compensation disclosure rules of the Securities and Exchange Commission;

7) To approve, on an advisory basis, the golden parachute compensation that may be paid or become payable to Targacept's named executive officers as disclosed in this proxy statement/prospectus/information statement;

8) To ratify the appointment of Ernst & Young, LLP as Targacept's independent registered public accounting firm for the fiscal year ending December 31, 2015;

9) To consider and vote on a proposal to adjourn the annual meeting, if necessary, to solicit additional proxies, in the event that there are not sufficient votes at the time of the annual meeting to approve Proposal Nos. 1, 2 and 3; and

10) To transact such other business as may properly come before the stockholders at the Targacept annual stockholders meeting or any adjournment or postponement thereof.

Each of Proposal Nos. 1, 2 and 3 are conditioned upon each other and the approval of each such proposal is a condition to the completion of the merger. Therefore, the completion of the merger, the issuance of shares of Targacept common stock and redeemable convertible notes in connection with the merger and the amendments to the restated certificate of incorporation of Targacept will not take place without the approval of Proposal Nos. 1, 2 and 3.

Recommendation of the Targacept Board of Directors

The Targacept board of directors has determined and believes that the Merger Agreement and the issuance of shares of Targacept common stock and redeemable convertible notes of Targacept by virtue of the merger contemplated by the Merger Agreement is in the best interests of Targacept and its stockholders and has approved such items. The Targacept board of directors unanimously recommends that Targacept stockholders vote "FOR" Targacept Proposal No. 1 to approve the Merger Agreement and the issuance of shares of Targacept common stock and redeemable convertible notes in the merger.

The Targacept board of directors has determined and believes that it is advisable to, and in the best interests of, Targacept and its stockholders to approve the restated certificate of incorporation of Targacept effecting the proposed reverse stock split, as described in this proxy statement/prospectus/information statement. The Targacept board of directors unanimously recommends that Targacept stockholders vote "FOR" Targacept Proposal No. 2 to approve the restated certificate of incorporation of Targacept effecting the proposed reverse stock split, as described in this proxy statement/prospectus/information statement.

The Targacept board of directors has determined and believes that the amendment to the restated certificate of incorporation of Targacept to change the name of Targacept to "Catalyst Biosciences, Inc." is advisable to, and in the best interests of, Targacept and its stockholders and has approved such name change. The Targacept board of directors unanimously recommends that Targacept stockholders vote "FOR" Targacept Proposal No. 3 to approve the name change.

The Targacept board of directors has determined and believes that the approval of the Targacept 2015 Stock Incentive Plan and the reservation of shares of common stock for issuance thereunder is advisable to, and in the best interest of, Targacept and its stockholders and has approved and adopted the plan. The Targacept board of directors unanimously recommends that Targacept stockholders vote "FOR" Targacept Proposal No. 4 to approve the Targacept 2015 Stock Incentive Plan and the reservation of shares of common stock for issuance thereunder.

The Targacept board of directors has determined and believes that the election of Errol B. De Souza, Ph.D., as a Class III director for a three-year term to expire at the 2018 Targacept annual stockholders meeting is advisable to, and in the best interests of, Targacept and its stockholders and has approved and adopted the proposal. The Targacept board of directors unanimously recommends that Targacept stockholders vote "FOR" Targacept Proposal No. 5 to elect one Class III director, Errol B. De Souza, Ph.D., for a three-year term to expire at the 2018 Targacept annual stockholders meeting provided, however, that, if the merger is completed, the Targacept board of directors will consist of the seven persons identified in this proxy statement/prospectus/information statement.

The Targacept board of directors has determined and believes that it is advisable to, and in the best interests of, Targacept and its stockholders to approve, on an advisory basis, the compensation of Targacept's named executive officers. The Targacept board of directors unanimously recommends that Targacept stockholders vote "FOR" Targacept Proposal No. 6 to approve the compensation of Targacept's named executive officers as disclosed in this proxy statement/prospectus/information statement.

The Targacept board of directors has determined and believes that it is advisable to, and in the best interests of, Targacept and its stockholders to approve, on an advisory basis, the golden parachute compensation that may be paid or become payable to Targacept's named executive officers. The Targacept board of directors unanimously recommends that Targacept stockholders vote "FOR" proposal No. 7 to approve the golden parachute compensation of named executive officers as disclosed in this proxy statement/prospectus/information statement.

The Targacept board of directors has determined and believes that the ratification of the selection of Ernst & Young, LLP as Targacept's independent registered public accounting firm for the fiscal year ending December 31, 2015 is advisable to, and in the best interests of Targacept and its stockholders and has approved

such ratification. The Targacept board of directors unanimously recommends that Targacept stockholders vote "FOR" Targacept Proposal No. 8 to ratify the selection of Ernst & Young, LLP as Targacept's independent registered public accounting firm for the fiscal year ending December 31, 2015.

The Targacept board of directors has determined and believes that adjourning the Targacept annual stockholders meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Targacept Proposal Nos. 1, 2 and 3 is advisable to, and in the best interests of, Targacept and its stockholders and has approved and adopted the proposal. The Targacept board of directors unanimously recommends that Targacept stockholders vote "FOR" Targacept Proposal No. 9 to adjourn the Targacept annual stockholders meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Targacept Proposal Nos. 1, 2 and 3.

Record Date and Voting Power

Only holders of record of Targacept common stock at the close of business on the record date, July 15, 2015, are entitled to notice of, and to vote at, the Targacept annual stockholders meeting. There were 43 holders of record of Targacept common stock at the close of business on the record date. At the close of business on the record date, 34,292,291 shares of Targacept common stock were issued and outstanding. Each share of Targacept common stock entitles the holder thereof to one vote on each matter submitted for stockholder approval. See the section entitled "Principal Stockholders of Targacept" beginning on page 319 for information regarding persons known to the management of Targacept to be the beneficial owners of more than 5% of the outstanding shares of Targacept common stock.

Voting and Revocation of Proxies

The proxy accompanying this proxy statement/prospectus/information statement is solicited on behalf of the board of directors of Targacept for use at the Targacept annual stockholders meeting.

If you are a stockholder of record of Targacept as of the record date referred to above, you may vote in person at the Targacept annual stockholders meeting or vote by proxy using the enclosed proxy card. Whether or not you plan to attend the Targacept annual stockholders meeting, Targacept urges you to vote by proxy to ensure your vote is counted. You may still attend the Targacept annual stockholders meeting and vote in person if you have already voted by proxy. As a stockholder of record:

- to vote in person, come to the Targacept annual stockholders meeting and bring a form of government issued picture identification with you. You may deliver your completed proxy card in person or you may vote by completing a paper proxy card or ballot, which will be available at the meeting; or
- to vote by mail, complete, sign and date your proxy card and return it promptly in the accompanying postage-paid envelope. Please allow sufficient time for Targacept to receive your proxy card if you decide to vote by mail.

If your Targacept shares are held by your broker as your nominee, that is, in "street name," you should receive voting instructions from the bank, broker or other nominee that holds your shares. If you do not give instructions to your broker, your broker can vote your Targacept shares with respect to "discretionary" items but not with respect to "non-discretionary" items. Discretionary items are proposals considered routine under the rules of The NASDAQ Global Select Market on which your broker may vote shares held in "street name" in the absence of your voting instructions. On non-discretionary items for which you do not give your broker instructions, the Targacept shares will be treated as broker non-votes. It is anticipated that Targacept Proposal Nos. 1, 2 and 3 will be non-discretionary items.

- to vote by mail, you should follow the instructions included on that proxy card regarding how to instruct your broker to vote your Targacept shares;

- to vote in person at the meeting, you will need to contact the bank, broker or other nominee that is the stockholder of record for your shares to obtain a broker's proxy card and then bring the proxy card, an account statement or a letter from the stockholder of record indicating that you beneficially owned the shares as of the record date and a form of government issued picture identification to the meeting. If you have all of (1) a broker's proxy card, (2) an account statement or letter indicating beneficial ownership as of the record date and (3) a government issued picture identification, you may vote by completing a paper proxy card or a ballot, which will be available at the meeting. If not, you will not be able to vote at the meeting; or
- to vote over the Internet or by telephone, if you are permitted and wish to do so, you should receive instructions from your bank, broker or other nominee and follow those instructions.

All properly executed proxies that are not revoked will be voted at the Targacept annual stockholders meeting and at any adjournments or postponements of the Targacept annual stockholders meeting in accordance with the instructions contained in the proxy. If a holder of Targacept common stock executes and returns a proxy and does not specify otherwise, the shares represented by that proxy will be voted "FOR" Targacept Proposal No. 1 to approve the Merger Agreement and the issuance of shares of Targacept common stock and redeemable convertible notes of Targacept in the merger; "FOR" Targacept Proposal No. 2 to approve the restated certificate of incorporation of Targacept effecting the proposed reverse stock split described in this proxy statement/prospectus/information statement; "FOR" Targacept Proposal No. 3 to approve the amendment to the restated certificate of incorporation of Targacept to change the name of "Targacept, Inc." to "Catalyst Biosciences, Inc."; "FOR" Proposal No. 4 to approve the Targacept 2015 Stock Incentive Plan; "FOR" Proposal No. 5 to elect Errol B. De Souza, Ph.D. as a Class III director for a three-year term to expire at the 2018 Targacept annual stockholders meeting, provided, however, that, if the merger is completed, the Targacept board of directors will consist of the seven persons identified in this proxy statement/prospectus/information statement; "FOR" Proposal No. 6 to approve, on an advisory basis, the compensation of Targacept's named executive officers; "FOR" Proposal No. 7 to approve, on an advisory basis, the golden parachute compensation that may be paid or become payable to Targacept's named executive officers; "FOR" Proposal No. 8 to ratify the selection of Ernst & Young, LLP as Targacept's independent registered public accounting firm for the year ending December 31, 2015; and "FOR" Targacept Proposal No. 9 to adjourn the Targacept annual stockholders meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Targacept Proposal Nos. 1, 2 and 3 in accordance with the recommendation of the Targacept board of directors.

Unless you are a Targacept stockholder who executed a voting agreement, you may change your vote or revoke your proxy at any time before your proxy is voted at the Targacept annual stockholders meeting in any one of the following ways:

- if you have signed and returned a paper proxy card, by signing a new proxy card bearing a later date and submitting it as instructed above;
- if you have voted by Internet or telephone, by casting a new vote over the Internet or by telephone as instructed above;
- by notifying Targacept's Corporate Secretary in writing before the annual stockholders meeting that you have revoked your proxy; or
- by attending the meeting in person and voting in person as provided above. Merely attending the meeting in person is not sufficient to revoke a previously submitted proxy. You must specifically request at the meeting that it be revoked.

The vote that you submit latest and still timely is the vote that will be counted.

If you are a Targacept stockholder of record or a stockholder who owns Targacept shares in "street name" and have instructed a broker to vote your shares of Targacept common stock, you must follow directions received from your broker to change your vote or revoke your proxy.

Required Vote

The presence, in person or represented by proxy, at the Targacept annual stockholders meeting of the holders of a majority of the shares of Targacept common stock outstanding and entitled to vote at the Targacept annual stockholders meeting is necessary to constitute a quorum at the meeting. Abstentions and broker non-votes will be counted towards a quorum. Approval of Targacept Proposal Nos. 1, 4, 6, 7, 8 and 9 requires the affirmative vote of the holders of a majority of the shares of Targacept common stock having voting power present in person or represented by proxy at the Targacept annual stockholders meeting. Approval of Targacept Proposal Nos. 2 and 3 requires the affirmative vote of holders of a majority of the Targacept common stock having voting power outstanding on the record date for the Targacept annual stockholders meeting. The affirmative vote of a plurality of the votes cast in person or by proxy at the Targacept annual stockholders meeting is required for approval of Proposal No. 5.

Votes will be counted by the inspector of election appointed for the meeting, who will separately count “FOR” and “AGAINST” votes, abstentions and broker non-votes. Abstentions will be counted towards the vote total for each proposal and will have the same effect as “AGAINST” votes for Proposal Nos. 1, 2 and 3, but will have no effect on Proposal Nos. 4, 5, 6, 7, 8 and 9. Similarly, broker non-votes will have the same effect as “AGAINST” votes for Targacept Proposal Nos. 1, 2 and 3, but will have no effect on Proposal Nos. 4, 5, 6, 7, 8 and 9.

The directors, executive officers and several major stockholders of Targacept, owning a combined 41% of the shares of Targacept common stock entitled to vote at the Targacept annual stockholders meeting, are subject to voting agreements. Each stockholder that entered into a voting agreement has agreed to vote all shares of Targacept common stock owned by him as of the record date in favor of the issuance of Targacept common stock in the merger as contemplated by the Merger Agreement, the adoption of the Merger Agreement if submitted for adoption, the approval of any proposal to adjourn or postpone the meeting to a later date, if there are not sufficient votes for the issuance of Targacept as contemplated by the Merger Agreement on the date on which such meeting is held, and any other matter necessary to complete the transactions contemplated by the Merger Agreement that are considered and voted upon by Targacept’s stockholders and against any “acquisition proposal,” as defined in the Merger Agreement. As of July 15, 2015, Targacept and Catalyst are not aware of any affiliate of Catalyst owning any shares of Targacept common stock entitled to vote at the Targacept annual stockholders meeting.

Solicitation of Proxies

In addition to solicitation by mail, the directors, officers, employees and agents of Targacept may solicit proxies from Targacept stockholders by personal interview, telephone, telegram or otherwise. Arrangements will also be made with brokerage firms and other custodians, nominees and fiduciaries who are record holders of Targacept common stock for the forwarding of solicitation materials to the beneficial owners of Targacept common stock. Targacept will reimburse these brokers, custodians, nominees and fiduciaries for the reasonable out-of-pocket expenses they incur in connection with the forwarding of solicitation materials.

Other Matters

As of the date of this proxy statement/prospectus/information statement, the Targacept board of directors does not know of any business to be presented at the Targacept annual stockholders meeting other than as set forth in the notice accompanying this proxy statement/prospectus/information statement. If any other matters should properly come before the Targacept annual stockholders meeting, it is intended that the shares represented by proxies will be voted with respect to such matters in accordance with the judgment of the persons voting the proxies.

THE MERGER

This section and the section entitled "The Merger Agreement" beginning on page 118 describe the material aspects of the merger, including the Merger Agreement. While Targacept and Catalyst believe that this description covers the material terms of the merger and the Merger Agreement, it may not contain all of the information that is important to you. You should read carefully this entire proxy statement/prospectus/information statement for a more complete understanding of the merger and the Merger Agreement, including the Merger Agreement attached as Annex A and the opinion of Stifel attached as Annex B.

Background of the Merger

Over the past two years, Targacept's board of directors and executive management team have regularly reviewed and discussed Targacept's operating and strategic plans, both near-term and long-term, in an effort to enhance stockholder value. These reviews and discussions have focused, among other things, on the potential benefits and risks associated with Targacept's business and financial condition, potential partnering opportunities and other strategic options. In particular, setbacks in the clinical development of Targacept's NNR Assets have prompted the Targacept board to focus on contingency planning and alternative means for providing returns to stockholders.

Among these setbacks included the announcement, on December 16, 2013, of results from a Phase 2b clinical trial of TC-5619 as an augmentation therapy for treatment of the negative symptoms of schizophrenia. In the trial, TC-5619 did not meet the primary outcome measure, change from baseline on the Scale for the Assessment of Negative Symptoms, after 24 weeks versus placebo. TC-5619 was also unable to demonstrate improvement on key secondary measures of cognitive function. In addition, on July 14, 2014, Targacept announced results from its Phase 2b monotherapy clinical trial of TC-1734 as a treatment for mild to moderate Alzheimer's disease. In the trial, TC-1734 did not meet the objective of showing superiority to donepezil, the marketed medication most often prescribed for Alzheimer's disease, after 52 weeks of treatment. Finally, on July 28, 2014, Targacept announced the results from its Phase 2b clinical studies of TC-5214 as a treatment for overactive bladder. In the trial, TC-5214 did not reach statistical significance on episodes of urinary incontinence per 24 hours, after 12 weeks of treatment. As a consequence of these results, Targacept announced it was terminating further development of TC-5214 in overactive bladder.

As these setbacks in the development of Targacept's NNR Assets unfolded, the Targacept board and management stepped up efforts to identify both internal and external opportunities for offsetting the attrition in Targacept's product development programs. At the board's regularly scheduled March and June 2014 meetings, Targacept management provided the board with management's assessment of a variety of strategic alternatives that Targacept could pursue to maximize stockholder value, including in-licensing product candidates to expand Targacept's product portfolio.

Beginning in early 2014 and continuing through January 2015, Targacept undertook a process of identifying and evaluating potential strategic combinations with public and private biotechnology and pharmaceutical companies. Prior to July 2014, this process focused on opportunities that might be complementary to Targacept's portfolio, in the event that one or more of the company's ongoing Phase 2 programs resulted in a positive outcome. After July 2014, the process focused on strategic merger opportunities that were not dependent upon Targacept's historic therapeutic and mechanistic focus. This process was led by Dr. Hill and Targacept's then Vice President of Business Development, Scott N. Cullison, and involved the assessment of a range of in-licensing and merger and acquisition opportunities in a variety of therapeutic areas. As described below, in assessing select opportunities, Dr. Hill and Mr. Cullison were supported from time-to-time by a due diligence team, or the Due Diligence Team, consisting of Targacept's executive management committee and select product development committee members, who together represented Targacept's principal business disciplines (i.e., drug research, development, and manufacturing, clinical, finance, regulatory affairs, business development, and legal).

The members of the Due Diligence Team were: Dr. Hill, Mr. Cullison, Alan A. Musso, who was Targacept's Senior Vice President of Finance and Administration, Chief Financial Officer, and Treasurer at the time, Mauri K. Hodges, who was Targacept's Vice President of Human Resources and Corporate Systems at the time and is the current Vice President of Finance, and Interim Chief Financial Officer, Jessica S. Beaver, who was Targacept's Senior Director of Regulatory Affairs and Quality Compliance at the time, Patrick C. Rock, who is Targacept's Senior Vice President, General Counsel, and Secretary, Steven M. Toler, who was Targacept's Vice President of Clinical Pharmaceutical Sciences at the time, David A. Hosford, who was Targacept's Vice President of Clinical Development and Regulatory Affairs at the time, Earl E. Sands, who was Targacept's Chief Medical Officer at the time, Merouane Bencherif, who was Targacept's Senior Vice President and Senior Scientific Fellow at the time, James W. Coulston, who is Targacept's Senior Director of Finance, and Controller, and Melissa J. Joseph, who was Targacept's Senior Director of Pharmaceutical Development at the time.

In May 2014, the CEO of Company A contacted Dr. Hill to express his interest in a potential combination of Targacept and Company A. On May 23, 2014, Targacept entered into a confidentiality agreement with Company A.

On May 25, 2014, Dr. Hill received an unsolicited, non-confidential presentation from a representative of Company B.

On July 22, 2014, Targacept entered into a confidentiality agreement with Company B.

On July 29, 2014, Dr. Hill received an unsolicited inquiry from a representative of Company C, suggesting a possible combination of the two companies.

On August 14, 2014, certain members of Targacept's management team met with Company A to discuss the possibility of a partnership between, or a business combination of, Targacept and Company A.

On August 21, 2014, members of Targacept's executive management committee met to discuss their initial views on Company A and another third-party, and to plan a formal approach for conducting a comprehensive assessment of potential strategic transactions.

Also on August 21, 2014, Targacept entered into separate confidentiality agreements with New Enterprise Associates, Inc., or NEA, and RTW Investments, LLC, or RTW, both significant stockholders of Targacept, in order for Targacept to be able to obtain their perspectives and views on potential business development opportunities.

On August 25, 2014, Targacept received a non-confidential overview from Company C regarding its technology.

On August 27, 2014, Targacept and BVF Partners L.P., or BVF, a significant stockholder of Targacept, entered into a confidentiality agreement in order for Targacept to be able to obtain BVF's perspectives and views on potential business development opportunities that were available to Targacept. From that point forward, Dr. Hill periodically updated BVF on the status of Targacept's plans, including potential merger and acquisition transactions.

On September 2, 2014, members of Targacept's development planning committee met to review and discuss existing and potential strategic transaction opportunities.

On September 3, 2014, certain members of Targacept's management team met telephonically with Company B. During the meeting, Company B presented an overview of its corporate strategy and discussed Company B's value proposition.

On September 4, 2014, members of Targacept's executive management committee met to discuss Company B's presentation and to make an initial assessment of their level of interest in Company B's programs.

Also on September 4, 2014, Mr. Musso received a non-confidential presentation from Company D, which expressed interest in a potential combination with Targacept, following an initial contact by Targacept in April 2014.

On September 10, 2014, Targacept entered into a confidentiality agreement with Company C.

On September 16, 2014, certain members of Targacept's management team met with representatives from Company A to discuss the possibility of a business combination of Targacept and Company A.

On September 17, 2014, representatives from Company A made a presentation to Targacept's board of directors' Technology and Innovation Committee regarding Company A's overall business, including its technology platform, products, partners, and corporate strategy.

On September 18, 2014, the Targacept board held a regularly scheduled meeting. During that meeting, Targacept management reviewed with the board a variety of strategic alternatives. The board was presented with, and discussed, a broad range of in-license, acquisition and merger opportunities, along with possible additional internal programs involving the NNR Assets. After consideration of these alternatives, the board directed the Targacept management team to continue exploring such alternatives, and, with respect to merger and acquisition opportunities, to identify and propose to the board for approval a qualified investment banking firm to assist in the process. With respect to the NNR Assets, the board instructed management only to consider incremental development efforts that would be supported by third-party co-investment and, in parallel, to explore mechanisms for possibly spinning off these assets. Dr. Hill also reported that Targacept had entered into confidential disclosure agreements with BVF, NEA and RTW, to facilitate their review of and feedback on select strategic opportunities being assessed by Targacept.

On September 22, 2014, Targacept and EcoR1 Capital, LLC, or EcoR1, entered into a confidentiality agreement in order for Targacept to be able to obtain EcoR1's perspectives and views on potential business development opportunities. From that point forward, Dr. Hill periodically updated EcoR1 on the status of Targacept's plans, including potential merger and acquisition transactions. Based on prior conversations with representatives of EcoR1, Dr. Hill understood that EcoR1 had built a significant ownership interest in Targacept, although EcoR1's ownership had not exceeded 5% of Targacept's outstanding shares so as to require a public report of its ownership, so Dr. Hill did not know the exact extent of EcoR1's ownership or the timing of its acquisition of that ownership.

On September 23, 2014, certain members of Targacept's management team met with representatives from a third-party. During the meeting, the third-party presented its corporate overview and the third-party's value proposition was discussed.

Between October 2, 2014 and October 3, 2014, Dr. Hill and Mr. Musso met in New York with representatives of Stifel and two other investment banks to discuss the potential engagement by Targacept of these investment banks as financial advisor in connection with the exploration of the strategic alternatives available to Targacept.

On October 6, 2014, Dr. Hill met telephonically with a board member of Company D to discuss a possible combination of the companies.

On October 7, 2014, members of Targacept's executive management committee and development planning committee met to discuss information received from Company D and updated information received from additional potential merger partners.

On October 8, 2014, AstraZeneca AB terminated its Collaborative Research and License Agreement with Targacept, effective as of January 2015. When termination of the collaboration agreement became effective, all remaining rights and licenses to compounds granted by Targacept under the collaboration agreement to AstraZeneca terminated and reverted to Targacept, including the rights and licenses relating to compound AZD1446 (also known as TC-6683).

On October 8, 2014, the Targacept board held a special telephonic meeting at which the board authorized Targacept's management to proceed with engaging Stifel to act as exclusive financial advisor to Targacept in analyzing the business, operations, properties, financial condition and prospects of Targacept and assist the board in developing a list of potential candidates for a strategic transaction and developing a general strategy for accomplishing a business combination. Later on that same day, Targacept engaged Stifel as its exclusive financial advisor with respect to the transaction.

On October 17, 2014, Targacept entered into a confidentiality agreement with Company D.

On October 20, 2014, certain members of Targacept's management team met with representatives from Stifel to discuss potential candidates for a strategic transaction and to develop a general strategy for accomplishing a business combination.

On October 21, 2014, certain members of Targacept's management team met with representatives from Company D. During the meeting, Company D presented its corporate overview and the possibility of a business combination of Targacept and Company D was discussed.

On October 27, 2014, Dr. Hill and Mr. Musso met telephonically with representatives from Stifel to discuss the process to date.

On October 28, 2014, the Targacept board held a special telephonic meeting, at which representatives from Stifel were also present. During that meeting, representatives from Stifel discussed the process and timeline established by Targacept's management and on actions taken to date relating to identifying and assessing strategic options for Targacept.

On October 29, 2014, Dr. Hill and representatives from BVF met with representatives from Company D to discuss the possibility of a business combination of Targacept and Company D.

Also on October 29, 2014, Dr. Hill and representatives from EcoR1 met with representatives from Company D to discuss the possibility of a business combination of Targacept and Company D.

On November 3, 2014, Dr. Hill, Mr. Musso and Mr. Cullison met telephonically with representatives from Stifel to discuss merger and acquisition opportunities available to Targacept.

Also on November 3, 2014, members of Targacept's executive management committee met to discuss progress to date, including updated information from a number of companies that were still under consideration as possible merger candidates.

Beginning in early November 2014, representatives from Stifel contacted 28 parties, including Catalyst, to inquire as to their interest in a potential strategic transaction involving Targacept. Of these companies, 22, including Catalyst, signed confidentiality agreements with Targacept and received bid letter instructions. In December 2014, representatives from Stifel received 17 letters of interest from companies to which they had previously sent bid letter instructions, including one from Catalyst.

On November 6, 2014, members of Targacept's executive management committee met to discuss feedback from key investors and to review and discuss an updated list of interested potential merger partners.

Between November 10, 2014 and January 6, 2015, Dr. Hill and other members of Targacept's Due Diligence Team attended and participated in multiple meetings and conference calls with representatives of parties that had signed confidentiality agreements to explore potential business combinations with Targacept.

On November 11, 2014, the Targacept board held a special telephonic meeting, in which representatives from Stifel also participated. During the meeting, Dr. Hill and the representatives from Stifel updated the board on

recent progress made in identifying and assessing strategic alternatives for Targacept, including developments in the bid solicitation and assessment process. The board reviewed and approved Stifel's proposed bid instruction letter to be provided to interested parties and considered how and when to coordinate possible presentations to the board by interested parties.

On November 12, 2014, Targacept entered into a confidentiality agreement with Company E.

On November 12, 2014, Targacept entered into a confidentiality agreement with Company F.

On November 13, 2014, Dr. Hill, Mr. Musso and Mr. Cullison met telephonically with representatives from Stifel to discuss the level of interest from parties that the representatives from Stifel had contacted, and to consider how to make third-party information available to Targacept's shareholders under their respective confidentiality agreements. Also on November 13, 2014, representatives of Catalyst met with representatives of BVF to give a presentation on the Catalyst business.

From November 14, 2014 through November 20, 2014, members of Targacept's Due Diligence Team met telephonically and in person with representatives from Stifel and representatives from eight different third parties, including representatives from Catalyst and Company D, to receive and discuss each company's corporate presentation.

On November 17, 2014, Dr. Hill attended a meeting with representatives from a third-party to discuss a possible business combination with Targacept.

On November 21, 2014, Dr. Hill, Ms. Hodges, Mr. Cullison and Mr. Rock, met telephonically with representatives from Stifel to discuss updated feedback from interested parties, and to confirm that relevant material had been provided as requested, under confidentiality agreements, to BVF, EcoR1 and RTW.

On November 24, 2014, members of the Targacept Due Diligence Team met telephonically with representatives from Stifel and representatives from another third-party to receive and discuss the third-party's corporate presentation. Also on November 24, 2014, members of the Targacept Due Diligence Team met telephonically with representatives from Stifel and representatives from Company E's management team to receive and discuss Company E's corporate presentation.

On November 25, 2014, the Targacept board met telephonically with Dr. Hill, Ms. Hodges, Mr. Cullison and Mr. Rock and with representatives of Stifel to discuss the status of the process to date. During the meeting, Dr. Hill reported on progress made since the board's last meeting in assessing strategic options for Targacept, and representatives from Stifel discussed with the board members developments in the bid solicitation and assessment process. Dr. Hill further summarized the preliminary views of Targacept's management and major investors on the various candidate companies considered to date.

On November 26, 2014, members of the Targacept Due Diligence Team met telephonically with representatives from Stifel and representatives from three third parties to receive and discuss a corporate presentation from the three third parties.

On December 1, 2014, members of the Targacept Due Diligence Team met telephonically with representatives from Stifel and representatives from another third-party to receive and discuss a corporate presentation from the third-party.

On December 2, 2014, Dr. Hill attended a meeting with representatives from the same third-party with which he had met on November 17, 2014 to discuss a possible business combination with Targacept.

On December 3, 2014, members of the Targacept Due Diligence Team met telephonically with representatives from Stifel and representatives from another third-party to receive and discuss a corporate presentation from the third-party.

From December 3, 2014 through December 9, 2014, Targacept received letters of interest from 17 parties, including Catalyst, in response to the instruction letter for initial bids.

On December 4, 2014, representatives of Catalyst spoke with representatives of RTW to give a presentation on the Catalyst business.

On December 5, 2014, members of the Targacept Due Diligence Team met telephonically with representatives from Stifel and representatives from another third-party to discuss a possible business combination with Targacept.

Also on December 5, 2014, Dr. Hill contacted representatives of NEA and Catalyst by telephone to discuss Catalyst's interest as a strategic partner. Catalyst provided a corporate presentation of its business and general strategy to Dr. Hill and a representative of NEA.

On December 10, 2014, the Targacept board held a regularly scheduled meeting, at which representatives from Stifel were also present. During the meeting, the representatives from Stifel discussed the process, activities and progress associated with its identification and assessment of certain merger and acquisition alternatives available to Targacept, or the M&A Process, including descriptions of the bid responses received from each of the companies that had been approached initially, or the Candidates, and the status of due diligence on the Candidates. Representatives from Stifel also discussed several alternatives for structuring a potential merger transaction. Also, Targacept's management made presentations to the board on the science and clinical development aspects of the businesses of select Candidates. In recognition of the fact that some Candidates expressed an interest in having Dr. Hill serve in an executive leadership role of the contemplated post-merger company, the board also formed a special committee, consisting of John P. Richard, Charles A. Blixt, Julia R. Brown, Errol B. De Souza, Ph.D., and Alan W. Dunton, M.D., or the Special Committee, to oversee the M&A Process.

On December 11, 2014, the Targacept board continued its regularly scheduled meeting. During the meeting, Targacept's management continued with the presentations suspended upon adjournment the previous day. The members of the board affirmed their consensus view that, in addition to the M&A Process, Targacept should continue to keep all of its strategic options open, including (i) pursuing select in-license opportunities, with a preference for those involving a co-investment by the licensor or the licensor's investors, and (ii) options for further developing Targacept's internal compound portfolio, with a preference for opportunities involving third-party funding support, including developing a business plan for the portfolio. Next, Dr. Hill summarized the feedback that Targacept had received on select Candidates from some of Targacept's major shareholders. A full discussion ensued, during which the board members, including the full Special Committee, expressed their view and belief that they had been provided sufficient time, information, and opportunity for questions to enable them to come to an informed and considered view on which five of the Candidates were the most attractive potential merger candidates for Targacept. Following the discussion, and based on Targacept's and Stifel's diligence and discussions with potential strategic partners, the Special Committee members unanimously agreed to narrow the focus of the M&A Process to five of the Candidates, Companies A, B, D and E and Catalyst, or, collectively, the Top Five.

The Targacept board next discussed and agreed upon the next steps in the M&A Process, including conducting additional due diligence, scheduling presentations by the Top Five to the board, requesting and assessing final bids from the Top Five, and following up with Candidates outside the Top Five whose initial bid letter responses indicated a potential interest in Targacept's internal compounds.

On December 12, 2014, certain members of Targacept's management team met telephonically with representatives from Stifel to discuss the results of the Targacept board meeting held on December 10-11, 2014 and next steps, in particular to ensure appropriate communication with the Top Five and with those companies who were not included among the Top Five. Later that day, Stifel notified Catalyst of its selection as one of the Top Five.

On December 16, 2014, Dr. Hill met telephonically with a third-party that had expressed interest in potentially accessing certain data and NNR compounds under a licensing agreement with Targacept.

On December 17, 2014, the Targacept Due Diligence team met to discuss a standardized diligence list to be provided to the Top Five, and to consider which, if any, external consultants should be approached to provide additional diligence reports on the Top Five.

On December 18, 2014, members of the Targacept Due Diligence Team met telephonically with representatives from Stifel and representatives from Company D's management team to discuss responses to specific follow up diligence questions posed earlier by Targacept.

On December 19, 2014, Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., legal counsel to Targacept, or Mintz Levin, discussed preliminary due diligence matters regarding Catalyst and Companies A, B, D and E with members of Targacept's executive management team via email. Additional teleconferences related to due diligence matters continued to be held between Targacept and Catalyst, as well as their respective representatives, including Mintz Levin, until March 5, 2015. On the same day, Dr. Hill and Mr. Cullison met telephonically with representatives from Stifel to discuss the latest information received from Company D.

On December 22, 2014, certain members of Targacept's executive management team met telephonically with representatives from Stifel to discuss the M&A Process.

Also on December 22, 2014, Mintz Levin sent a proposed draft of the Merger Agreement to both Stifel and members of Targacept's executive management team for inclusion in a request for a revised bid letter the Targacept board instructed Stifel to send to Catalyst and Companies A, B, D and E.

On December 23, 2014, the Special Committee of the Targacept board held a telephonic meeting, at which, at the direction of the board, representatives from Stifel were also present. Representatives from Stifel updated the Special Committee members on developments in the bid solicitation and assessment process, noting that activities were progressing according to the established timeline. Representatives from Stifel also described planned near-term next steps, including distributing to the Top Five letters requesting final bids and scheduling face-to-face presentations to the board by the Candidates who had yet to do so. Dr. Hill then reported on recent discussions with some of Targacept's major shareholders, who were under confidentiality agreements with Targacept, and on face-to-face meetings he planned to have with select Top Five candidates.

On December 30, 2014, Dr. Hill met telephonically with Dr. Nassim Usman, President and Chief Executive Officer of Catalyst, to discuss the possible business combination with Targacept.

On January 2, 2015, members of Targacept's executive management met telephonically with representatives of Mintz Levin to discuss the terms of the proposed draft of the Merger Agreement, including structural alternatives to deliver value to Targacept's stockholders, including a cash dividend.

On January 5, 2015, the Targacept Due Diligence team met to review their internal diligence summaries on the Top Five, which were prepared during the period from December 23, 2014 to January 4, 2015, as well as available external diligence reports.

Also on January 5, 2015, Dr. Hill met with representatives from Catalyst at their headquarters in San Francisco to discuss aspects of Catalyst's portfolio, staffing, operational structure, collaborations, financial information and strategic plans.

On January 6, 2015, Dr. Hill met with representatives from Company E to discuss in detail their portfolio prioritization, financial structure and future plans for partnering and internal projects.

On January 6, 2015, Mintz Levin distributed a revised proposed draft of the Merger Agreement to members of Targacept's executive management team and to representatives of Stifel, which reflected changes discussed during the January 2, 2015 telephonic meeting.

On January 6, 2015, the Special Committee of the Targacept board held a telephonic meeting, at which, at the direction of the board, representatives from Stifel and representatives from Company A were also present. Representatives of Company A presented an update on key developments in the company's business since Company A's presentation to the board's Technology and Innovation Committee, which took place on September 17, 2014. Representatives from Company A responded to various questions from members of the Special Committee throughout the presentation. Also during the meeting, Stifel discussed recent developments in the ongoing bid solicitation and assessment process, including proposed next steps.

On January 7, 2015, Stifel sent out a letter to the Top Five outlining instructions for submitting a revised indication of interest to Targacept. This request included an initial draft of the Merger Agreement, which had been prepared by Mintz Levin, and requested that any revised bids include specific details regarding the potential transaction structure, comments to the Merger Agreement, a projected closing date for the merger, a description of any interest in the NNR Assets and Targacept employees, a description and sources of potential co-investments by new or existing investors, a confirmation that the bidder had completed all of their due diligence that would have an impact on the valuation of Targacept, a description of any authorizations and approvals required to complete the transaction and any other information that would be helpful to Targacept in reaching a decision regarding the revised bids.

On January 11, 2015, the Special Committee of the Targacept board held a special in person meeting, at which, at the direction of the board, representatives from Stifel and, for different portions of the meeting, representatives from Company B, representatives from Company D, representatives from Company E, and representatives from Catalyst were present. Company B, Company D, Company E and Catalyst separately presented information on their respective company's business, science and other matters, and answered various questions from members of the Special Committee. A full discussion ensued, during which the members of the Special Committee discussed the relative merits, including scientific and valuation aspects, of Companies A, B, D, E, and Catalyst. Representatives from Stifel also discussed the next steps in the process of continuing to gather information on, assess, and winnow the Candidates.

On January 14, 2015, Dr. Hill met with representatives of BVF at their offices in San Francisco, to discuss the status of the diligence process and to seek their input.

On January 14, 2015, Dr. Hill met with the Chairman of Company B to discuss certain leadership possibilities if Company B were to merge with Targacept.

On January 15, 2015, Dr. Hill met with the Chairman of Company E to discuss the strategic direction of Company E, including, in particular, its balance of platform development versus product development if Company E were to merge with Targacept.

On January 20, 2015, certain members of Targacept's executive management team met telephonically with representatives from Stifel to discuss high level merger structuring possibilities, and how to best assess and respond to a recent unsolicited bid to acquire Targacept from a third-party.

On January 21, 2015, Targacept received revised bids, including comments to the initial draft of the Merger Agreement drafted by Mintz Levin, from Catalyst and Companies A, B, D and E. Catalyst improved the terms of its initial bid letter from December 4, 2014, and proposed a stock for stock merger, resulting in Targacept stockholders owning approximately 35% and Catalyst stockholders owning approximately 65% of the combined company. Catalyst's bid valued Targacept at a price of $2.68 per share, a 7.2% premium over the closing price of Targacept's shares on January 20, 2015. In addition to the merger, Catalyst's bid included a proposed one-time dividend to the pre-merger stockholders of Targacept, consisting of both a cash payment and redeemable convertible notes. Catalyst's bid proposed that the combined company have $35.0 million in cash from Targacept and $5.0 million in cash from Catalyst, for a total of $40.0 million to capitalize and fund the operations of the combined company. Catalyst also noted in its revised bid that its proposal was subject to satisfactory completion of due diligence and negotiation of mutually acceptable definitive written agreements.

On January 22, 2015, members of Targacept's executive management committee met to discuss the final revised bids as received from the Top Five, and to prepare for a subsequent Targacept board meeting to discuss the bids. Following a comprehensive discussion of scientific, clinical, regulatory, financial, valuation, intellectual property and other matters, the executive team assessed the comparative merits of each of the Top Five's bids, and concluded that the Catalyst bid reflected the best opportunity available to Targacept.

On January 24, 2015, the Special Committee of the Targacept board held a telephonic meeting, at which, at the direction of the board, representatives from Stifel and representatives from Mintz Levin were also present. Representatives from Stifel discussed the M&A Process to date and described the responses received from the five companies selected by the board at its December 10-11, 2014 meeting to receive requests for revised indications of interest. Representatives from Stifel and Dr. Hill also discussed an unsolicited indication of interest that representatives from Stifel received from a sixth company on January 9, 2015, which had not previously been considered as part of the M&A Process. During the meeting, Dr. Hill summarized feedback received on the Top Five from certain of Targacept's major shareholders and from Targacept's executive management team. The members of the Special Committee unanimously agreed not to consider further the unsolicited indication of interest received from the sixth company, because they believed it presented a less attractive merger prospect relative to the Top Five due to insufficient clarity on any competitive advantage presented by this company, a less compelling justification for its proposed valuation, and lack of any other evidence that it represented a better option compared to any of the bids from the Top Five. During its discussion, the Special Committee concluded that the combination of deal structure proposed by Catalyst (including a return of cash to Targacept shareholders, and a special dividend allowing future conversion of notes into shares), the attractiveness of Catalyst's clinical and pre-clinical portfolio and core technology, and the proposed cash resources to be held by Targacept and Catalyst at closing, represented the best opportunity for a merger. The Special Committee then unanimously agreed and indicated its support for management to pursue a transaction with Catalyst. The Special Committee members then discussed the next steps in the M&A Process, including the critical points of negotiation for the merger. Following the discussion, the Special Committee members provided guidance to management on Targacept's response to Catalyst's revised indication of interest, including a request to be made to Catalyst to improve the terms of the redeemable convertible notes to be issued to Targacept's stockholders in connection with the merger, and to request that certain Catalyst stockholders enter into lock-up agreements with respect to the shares of Targacept stock to be issued to them in the merger. The Special Committee members also provided guidance to management on the differentiated responses to be sent to the remaining four of the Top Five companies' revised indications of interest.

On January 26, 2015, representatives of Stifel notified Catalyst of the Special Committee's determination to continue Catalyst in the M&A Process and to request further adjustments to Catalyst's indication of interest. On January 27, 2015, Catalyst submitted a letter updating its proposal, including improving the terms of the redeemable convertible notes to be issued to Targacept's stockholders in connection with the merger, indicating that certain Catalyst stockholders would be willing to enter into a lock-up agreement, and detailing other aspects of the proposed merger, including anticipated time to completing definitive agreements.

On January 28, 2015, certain members of Targacept's management team met telephonically with representatives from Stifel and representatives from Mintz Levin to discuss the status of the M&A Process.

On January 30, 2015, Dr. Hill met telephonically with the Chairman of Catalyst to discuss certain aspects of the potential combined company's future strategy.

Also on January 30, 2015, there was a call between representatives of Targacept and Catalyst regarding certain intellectual property diligence matters.

On February 2, 2015, John P. Richard, the Chairman of the Targacept board, and Harold E. Selick, Ph.D., the Chairman of the Catalyst Board, spoke by telephone to discuss the potential composition of the combined company's board of directors following the completion of the possible merger.

On February 3, 2015, members of Targacept's executive management committee met to discuss feedback from the Targacept board meeting and to consider implications for the short-term management of the company in light of the possible merger with Catalyst.

On February 5, 2015, Stifel sent a revised draft of the proposed Merger Agreement to Catalyst.

On February 10, 2015, Morrison & Foerster LLP, or Morrison & Foerster, legal counsel to Catalyst, delivered a revised draft of the proposed Merger Agreement to Mintz Levin. From February 12, 2015 to March 4, 2015, representatives of Targacept, Catalyst, Mintz Levin and Morrison & Foerster had multiple communications regarding the Merger Agreement, Voting Agreements, Lock-up Agreement, and ancillary matters, and exchanged multiple drafts of the related documents. Key terms of the transaction negotiated during this period included the determination of Targacept's and Catalyst's respective cash balances at closing, closing conditions of both Targacept and Catalyst, including payment of the Pre-Closing Dividend by Targacept and Catalyst's net cash balance, treatment of each companies' respective outstanding stock options in the merger, the timing of Catalyst's stockholder consent to the merger, the respective termination fees to be paid by Targacept and Catalyst in the event the Merger Agreement is terminated, the makeup of the surviving corporation's board of directors, the treatment of Targacept's NNR Assets, the release of claims against Targacept and Catalyst contained in the Voting Agreements and the length of the lock-up period for Catalyst shareholders in the Lock-up Agreement.

On February 11, 2015, the Targacept board met telephonically with certain members of Targacept's management team to discuss the status of the Merger Agreement, the treatment of employee options following the merger, interim corporate performance objectives for 2015 and possible post-merger board composition.

On February 13, 2015, Mintz Levin provided initial drafts of the Voting Agreement and other exhibits to the Merger Agreement for review by Morrison & Foerster.

On February 17, 2015, members of Targacept's executive management committee met to discuss the status of the draft merger documents, feedback from the February 11 meeting of the Targacept board, and initiatives to communicate with employees regarding the status of ongoing negotiations.

On February 24, 2015, members of Targacept's executive management committee met to discuss proposals to ensure adequate staffing of the company during the ongoing negotiations through the anticipated signing and closing of a deal, and for potentially thereafter.

During the period from February 24, 2015 until March 4, 2015, Dr. Hill had a number of separate telephone conversations with representatives of NEA, BVF, EcoR1 and RTW to ascertain each of the shareholders' levels of support for the proposed transaction.

On March 4, 2015, the parties completed their respective due diligence efforts and finalized the terms of the proposed Merger Agreement and related documents, including, without limitation, the respective termination fees to be paid by each of Targacept and Catalyst in the event that (i) the Merger Agreement is terminated as a result of a change in recommendation by either party's board or (ii) the Merger Agreement is terminated by either party in order to enter into a definitive agreement to effect a superior offer. The parties agreed to a termination fee in the amount of $3.22 million, or up to $1.25 million in expense reimbursements, by Targacept and a termination fee in the amount of $2.275 million to be paid by Catalyst, in either case payable in accordance with the terms of the proposed Merger Agreement.

On March 5, 2015, the Targacept board met with members of Targacept's management, a representative of Mintz Levin, and representatives of Stifel. At the outset of the meeting, the board decided to disband the Special Committee, as no provisions of the proposed transaction with Catalyst presented the potential for a conflict of interest involving Dr. Hill. A representative of Mintz Levin reviewed with the board its legal obligations and fiduciary duties with respect to the consideration of the proposed merger with Catalyst. The Mintz Levin

representative also reviewed the key provisions of the Merger Agreement, including structure and timing considerations, closing conditions, non-solicitation provisions and the exceptions thereto that would permit Targacept or Catalyst to negotiate and accept an unsolicited superior proposal, termination provisions, the termination fees, and circumstances under which the termination fees would be payable. The board then reviewed the various strategic reasons for the transaction, the prospects of Targacept as a standalone company focusing on its existing business, including the NNR Assets, and current market conditions. Representatives of Stifel then delivered to the board Stifel's opinion, subsequently confirmed in writing on the same date, as to the fairness to Targacept, from a financial point of view, of the merger consideration to be paid by Targacept to the holders of Catalyst shares other than the Excluded Holders (as defined below). After an extensive discussion and consideration of the financial and legal aspects of the proposed transaction, the board then unanimously (i) determined that the merger is advisable and in the best interests of Targacept and its stockholders, (ii) approved the Merger Agreement, the merger and the other transactions contemplated by the Merger Agreement and deemed the Merger Agreement advisable, and (iii) approved and determined to recommend the approval of the issuance of the shares of Targacept common stock in connection with the merger. All of the directors of Targacept attended this meeting in person or by teleconference.

On the afternoon of March 5, 2015, Targacept and Catalyst finalized the Merger Agreement, executed the Merger Agreement and entered into voting agreements with certain officers, directors and stockholders of Targacept and Catalyst and entered into lock-up agreements with certain officers, directors and stockholders of Catalyst.

After signing the Merger Agreement on March 5, 2015, Targacept and Catalyst issued a joint press release announcing the execution of the Merger Agreement and the related documents.

On April 1, 2015, Dr. Usman called Dr. Hill to inform him that Pfizer would be exercising its right to terminate in its entirety the June 29, 2009, research and license agreement between Catalyst and Wyeth LLC (a wholly owned subsidiary of Pfizer), or the Research and License Agreement, which governs the development and commercialization of Catalyst's leading human Factor VIIa product candidate for the treatment of hemophilia and surgical bleeding indications, known as CB 813d/PF-05280602. To Catalyst's knowledge, the termination was the result of an internal review of products in development at Pfizer.

On April 2, 2015, Pfizer provided Catalyst with its formal written notice of termination of the Research and License Agreement. Also on April 2, 2015, the Targacept executive committee and subsequently the Targacept board held telephonic meetings to discuss the termination of the Research and License Agreement.

Between April 2, 2015 and April 7, 2015, the Targacept executive committee compiled diligence information requests for Catalyst related to the consequences of the termination of the Research and License Agreement.

Between April 2 and April 3, 2015, Dr. Hill spoke by telephone with representatives of NEA, BVF, RTW and EcoR1 in their respective capacities as Targacept shareholders, collectively representing approximately 42% of Targacept's outstanding shares, under pre-existing confidentiality agreements, regarding the termination of the Research and License Agreement and its consequences for the combined company.

On April 6, 2015, Targacept publicly announced Pfizer's termination of the Research and License Agreement.

On April 7, 2015, certain members of Targacept's management team met telephonically with representatives from Stifel and Mintz Levin to discuss the status of the merger with Catalyst. Also on April 7, 2015, Mintz Levin sent a letter to Catalyst requesting additional diligence materials to assist Targacept in understanding the impact of the termination of the Research and License Agreement on Catalyst's business. Catalyst responded to that request on a rolling basis over the next few weeks. Also on April 7, 2015, Catalyst informed Targacept of an unsolicited request from Company X to discuss possible mutual areas of interest, which Catalyst declined, citing its obligations under the Merger Agreement.

Also on April 7, 2015, Dr. Hill received calls from three separate Targacept shareholders, representing approximately 10% of Targacept's outstanding shares, who wished to express their opinions regarding the

termination of the Research and License Agreement. As these shareholders were not bound by confidentiality agreements, Dr. Hill limited his comments to those already in the public domain via Targacept's SEC filings.

On April 9, 2015, Dr. Hill received calls from representatives of EcoR1 and another shareholder, in which the shareholders provided their opinions regarding the termination of the Research and License Agreement.

On April 10, 2015, the Targacept board held a telephonic meeting to discuss the status of the merger with Catalyst. The Targacept board considered information that it had received regarding the termination of the Research and License Agreement.

On April 13, 2015, Targacept received a partial draft response from Catalyst to its April 7, 2015, diligence requests.

On April 14, 2015, Targacept received a bona fide unsolicited written proposal for an alternative transaction from Company B, which had been revised to reflect changes from Company B's original proposal to merge with Targacept. Also on April 14, representatives of Targacept held a telephone call with representatives of Stifel to discuss the termination of the Research and License Agreement.

On April 15, 2015, Targacept informed Catalyst that it had received an unsolicited bid from Company B. Also on April 15, 2015, members of the Targacept executive committee met to review the results of Targacept's recently completed clinical trial of its product candidate TC-6499 for the treatment of diabetic gastroparesis. After due deliberation, the committee concluded that the results demonstrated no evidence of activity for TC-6499 in the studied indication, and that further development of the program could not be justified. The committee also considered the implications of this outcome for the proposed creation of a liquidating trust to handle Targacept's remaining NNR assets. The results from the trial of TC-6499 were publicly announced on April 16, 2015.

On April 16, 2015, Targacept received a bona fide unsolicited written proposal for an alternative transaction from Company C, which had been revised to reflect changes from Company C's original proposal to merge with Targacept.

Also on April 16, 2015, Catalyst informed Targacept that it had received an unsolicited inquiry from Company Y regarding Catalyst's hemostasis portfolio.

Also on April 16, 2015, the Targacept board held a telephonic meeting at which management and representatives from Mintz Levin were present. During this call, management of Targacept provided the board with an update on the receipt of the unsolicited written proposals and the status of the transaction with Catalyst. In recognition of his advisory relationship with one of the unsolicited bidders, Mr. Richard was excused from the meeting prior to the presentation and discussion of the unsolicited proposals.

On April 17, 2015, Dr. Hill held a call with representatives of Stifel to communicate the outcome of the Targacept board meeting from the previous day.

On April 19, 2015, Dr. Usman provided Dr. Hill with an updated operating plan for Catalyst, which reflected the changes to the Catalyst business brought about by the termination of the Research and License Agreement, including changes in capital requirements and the timing of anticipated clinical and developmental milestones. The plan showed a delay in the initiation of the CB 813d/PF-05280602 efficacy trial and greater capital costs driven by transfer and funding of the manufacture of CB 813d/PF-05280602 and funding of the efficacy trial. The revised plan also proposed a delay in the start of the Phase 1 trial for CB 2782 (for DGF) and reduced research spending for earlier stage research programs to balance the need for additional capital resources for CB 813d/PF-05280602.

On April 20, 2015, Targacept received a bona fide unsolicited written proposal from Company F, which had been revised to reflect changes from Company F's original proposal to merge with Targacept. Also on April 20, 2015,

Dr. Hill and Dr. Usman discussed by phone certain steps for responding to the termination of the Research and License Agreement, including how to approach the possible transfer of manufacturing responsibilities for CB 813d/PF-05280602 from Pfizer to a new manufacturer.

On April 21, 2015, the Targacept executive committee met to discuss the revised Catalyst operating plan.

Also on April 21, 2015, Dr. Hill and Dr. Usman discussed by phone how to approach certain of Targacept's major shareholders regarding Catalyst's revised operating plan. Between April 2, 2015 and April 22, 2015, Dr. Hill and Dr. Usman held a number of additional calls to plan the respective companies' approach to the Targacept shareholders regarding Catalyst's updated operating plan.

On April 24, 2015, members of the Targacept board except Mr. Richard held a telephonic meeting at which management and representatives from Stifel and Mintz Levin were present, and all parties discussed in depth the revised proposals received from Company B, Company C and Company F. During this meeting, the Targacept board determined, in consultation with the representatives of Stifel and Mintz Levin, that each of the unsolicited proposals was reasonably expected to result in a superior offer, as defined in the Merger Agreement.

On April 27, 2015, Mintz Levin notified Catalyst of the Targacept board's conclusion with regard to the unsolicited proposals.

Also on April 27, 2015, Dr. Usman presented the revised Catalyst operating plan to representatives of BVF in their offices in San Francisco. Later that day, Dr. Hill held separate telephone calls with Dr. Usman and with BVF representatives to discuss their conclusions from the meeting.

On April 28, 2015, Dr. Hill received a revised presentation from Dr. Usman reflecting certain updates on Catalyst's strategic and operating plans.

On April 29, 2015, Dr. Hill received a revised presentation from Dr. Usman reflecting certain updates on Catalyst's strategic and operating plans, which included refinements to its budget and clinical trial plans.

On April 30, 2015, Targacept received initial responses from Catalyst in answer to certain additional questions Targacept had raised on April 27, 2015. Also on April 30, Targacept received a further revised operating plan presentation from Catalyst.

Between April 22, 2015 and April 30, 2015, Dr. Hill and Dr. Usman held a number of telephone calls in an effort to advance the discussions between the companies with regard to potential changes to the terms of the Merger Agreement in light of the termination of the Research and License Agreement.

On May 1, 2015, members of the Targacept board except Mr. Richard held a telephonic meeting at which management and representatives from each of Mintz Levin and Stifel were present. During this meeting, Dr. Usman presented Catalyst's updated operating plan and responded to questions from the Targacept board. The meeting was conducted in stages, using different dial-in numbers, so the revised operating plan and Dr. Usman's presentation could be candidly and confidentially discussed. Later that day, Dr. Hill called Dr. Usman to communicate the substance of the Targacept board's conclusions from its meeting earlier that day, and Dr. Hill and Dr. Usman discussed a range of possible changes to the Merger Agreement, which would take account of the termination of the Research and License Agreement and the expectations of Targacept's major shareholders.

On May 3, 2015, Dr. Usman called Dr. Hill to communicate the outcome of a meeting of Catalyst's transaction team, held on May 3, 2015, regarding possible changes to the terms of the Merger Agreement, including adjustments to the exchange ratio calculation, the Pre-Closing Dividend, and the terms of the redeemable convertible notes.

On May 4, 2015, Dr. Hill received an email from Dr. Usman outlining a proposal for certain changes to the Merger Agreement which were supported by the Catalyst shareholders, and which Dr. Usman believed would be acceptable to Targacept's board and shareholders.

On May 5, 2015, members of the Targacept board except Mr. Richard (who did not participate due to his continuing recusal from the discussions regarding the unsolicited bids) and Mr. Blixt (who did not participate due to a scheduling conflict) held a telephonic meeting at which management and representatives from Stifel and Mintz Levin were present, and all parties discussed in depth the revisions to the Merger Agreement as proposed by Catalyst, as well as the unsolicited proposals received from Company B, Company C, and Company F prior to the Board meeting held on April 24, 2015. The Targacept board members who were present unanimously concluded that it was in the best interests of Targacept and its shareholders to negotiate an amendment to the Merger Agreement reflecting the revisions as proposed by Catalyst. Further, the Targacept board members who were present unanimously concluded that if the amendment to the Merger Agreement could be entered into substantially on the terms proposed by Catalyst, the three unsolicited proposals received from Company B, Company C and Company F were no longer reasonably expected to result in a superior offer, as defined in the Merger Agreement. The Targacept board asked Stifel to update its opinion as to the fairness to Targacept, from a financial point of view and as of the date of the opinion, of the merger consideration to be paid by Targacept under the proposed revisions to the Merger Agreement to the holders of Catalyst shares (other than the Excluded Holders). The Targacept board members who were present also unanimously agreed, by formal resolutions, to amend the Merger Agreement to extend the date upon and beyond which either Targacept or Catalyst will have the right to terminate the Merger Agreement if the merger has not yet been consummated, subject to the terms and conditions of the Merger Agreement, from July 31, 2015 to September 30, 2015.

On May 6, 2015, Targacept, Catalyst, and Talos Merger Sub executed Amendment No. 1 to the Merger Agreement, extending the date upon and beyond which either Targacept or Catalyst will have the right to terminate the Merger Agreement if the merger has not yet been consummated, subject to the terms and conditions of the Merger Agreement, from July 31, 2015 to September 30, 2015.

Also on May 6, 2015, Dr. Hill spoke by telephone separately with representatives of Companies B, C and F, to inform each of them that the board of Targacept had determined that it was in Targacept's and its shareholders' best interests to suspend any further discussions with each company and that Targacept remained committed to concluding a merger with Catalyst.

On May 7, 2015, Dr. Hill met with Dr. Usman in Catalyst's offices to further discuss details of the proposed amendment to the Merger Agreement.

Also on May 7, 2015, Morrison & Foerster provided a draft of the second amendment to the Merger Agreement to Mintz Levin. Between May 7 and May 13, 2015, Morrison & Foerster, Mintz Levin and the management of Targacept and Catalyst negotiated the terms of the second amendment to the Merger Agreement.

On May 13, 2015, the Targacept board held a telephonic meeting at which management and representatives from Stifel and Mintz Levin were present. The board discussed the proposed Amendment No. 2 to the Merger Agreement at length. Subject to the terms and conditions of proposed Amendment No. 2, it was anticipated that at the closing of the merger, each outstanding share of Catalyst common stock would be converted into the right to receive approximately 0.28-0.32 shares of common stock of Targacept, as compared to the right to receive approximately 0.40-0.49 shares of common stock of Targacept under the Merger Agreement prior to the amendment. In addition, proposed Amendment No. 2 provided that the notes issued as part of the Pre-Closing Dividend would be convertible or redeemable at any time within 30 months after the closing of the merger at the noteholder's discretion, as compared to a 24 month period to maturity under the Merger Agreement prior to the amendment. The proposed Amendment No. 2 to the Merger Agreement also provided that any NNR Therapeutics™ assets not sold or otherwise disposed of prior to the closing date would remain with the combined company, rather than being placed in a liquidating trust for the benefit of Targacept stockholders.

Representatives of Stifel then delivered to the board Stifel's opinion, subsequently confirmed in writing on the same date, as of such date and subject to and based upon the assumptions made, procedures followed, matters considered, limitations on the review undertaken and qualifications contained in the written opinion, as to the fairness to Targacept, from a financial point of view, of the merger consideration to be paid by Targacept pursuant to the amended Merger Agreement to the holders of Catalyst shares other than the Excluded Holders. After an extensive discussion, the board then unanimously approved the amendment to the Merger Agreement.

On the afternoon of May 13, 2015, Targacept and Catalyst finalized and executed Amendment No. 2 to the Merger Agreement, and entered into new voting agreements with the officers, directors and stockholders of Targacept and Catalyst reflecting the Merger Agreement as amended.

On May 14, 2015, Targacept and Catalyst issued a joint press release announcing the execution of the second amendment to the Merger Agreement.

Targacept Reasons for the Merger

As noted above, over the past two years, Targacept's board and executive management team have regularly reviewed and discussed Targacept's operating and strategic plans, both near-term and long-term, as well as potential partnerships, in an effort to enhance stockholder value. These reviews and discussions have focused, among other things, on the opportunities and risks associated with Targacept's business and financial condition and strategic relationships and other strategic options. In particular, recent setbacks in the clinical development of Targacept's NNR Assets have prompted the Targacept board to focus on alternative means for providing returns to stockholders.

In the course of its evaluation of the merger and the Merger Agreement, the Targacept board held numerous meetings, consulted with Targacept's senior management, legal counsel, its financial advisor, and certain significant shareholders, and reviewed and assessed a significant amount of information and, in reaching its unanimous decision to approve the merger and the Merger Agreement, the Targacept board considered a number of factors, including, among others, the following factors:

- The board believes, based in part on the judgment, advice and analysis of Targacept senior management with respect to the potential strategic, financial and operational benefits of the merger (which judgment, advice and analysis was informed in part on the business, technical, financial, accounting and legal due diligence investigation performed with respect to Catalyst), that Catalyst's product candidates, focused on the field of hemostasis and complement regulation, represent an attractive potential opportunity, and may provide new medical benefits for patients and returns for investors.
- The board also reviewed with the management of Targacept and the management of Catalyst the current plans of Catalyst for developing Catalyst's product candidates to confirm the likelihood that the combined organization would possess sufficient financial resources to allow the management team to focus on the continued development and anticipated commercialization of Catalyst's product candidates. The board also considered the possibility that the combined organization would be able to take advantage of the potential benefits resulting from the combination of the Targacept public company structure with the Catalyst business to raise additional funds in the future, if necessary.
- The board concluded that the merger would provide the existing Targacept stockholders a significant opportunity to participate in the potential growth of the combined organization following the merger, while the declaration of the special dividend that would become payable to Targacept stockholders in connection with the merger would result in the return of some cash to Targacept stockholders in the near term.
- The board also considered that the combined organization will be led by an experienced senior management team and a board of directors with representation from each of the current boards of directors of Targacept and Catalyst.

- The board considered the valuation and business prospects of all the potential merger candidates. In particular, their collective view was that Catalyst was the most attractive candidate because of their protease platform science, the promising product candidates Catalyst was developing in the field of hemostasis and complement regulation, and the validation provided by a major pharmaceutical partner for their lead asset. After considering the highly comprehensive diligence review that Targacept management had completed of four other prospective merger partners, the board concluded that the merger with Catalyst would create a publicly traded company focused on improving patient access to important medicines that would create more value for Targacept's stockholders than any of the other proposals that the board had received.
- The board considered the financial analyses of Stifel, including its opinion to the board of directors as to the fairness to Targacept, from a financial point of view and as of the date of the opinion, of the merger consideration to be paid by Targacept to the holders of Catalyst shares (other than the Excluded Holders), as more fully described below under the caption "The Merger—Opinion of the Targacept Financial Advisor."

The Targacept board also reviewed the recent financial condition, results of operations and financial condition of Targacept, including:

- Targacept's business and financial prospects if it were to remain an independent company and the board's determination that it was in the best interests of Targacept's stockholders to enter into an agreement with a strategic partner;
- the results of substantial efforts made over a significant period of time by Targacept's senior management and financial advisors to solicit strategic alternatives for Targacept to the merger, including the discussions that Targacept management and the board had in late 2014 and early 2015 with other potential merger candidates;
- current financial market conditions and historical market prices, volatility and trading information with respect to Targacept's common stock;
- the potential for obtaining a superior offer from an alternative purchaser in light of the other potential strategic buyers previously identified and contacted by or on behalf of Targacept and the risk of losing the proposed transaction with Catalyst; and
- the risks, costs and timing associated with a potential liquidation of Targacept.

The Targacept board also reviewed the terms of the merger and associated transactions, including:

- the limited number and nature of the conditions to Catalyst's obligation to consummate the merger and the limited risk of non-satisfaction of such conditions as well as the likelihood that the merger will be consummated on a timely basis;
- the respective rights of, and limitations on, Targacept and Catalyst under the Merger Agreement to consider certain unsolicited acquisition proposals under certain circumstances, should Targacept or Catalyst receive a superior proposal;
- the reasonableness of the potential termination fee of $3.22 million and related reimbursement of certain transaction expenses of up to $1.25 million, which could become payable by Targacept, and the reasonableness of the potential termination fee of $2.275 million, which could become payable by Catalyst, if the Merger Agreement is terminated in certain circumstances;
- the voting agreements, pursuant to which certain stockholders of Catalyst agreed, solely in their capacity as stockholders, to vote all of their shares of Catalyst capital stock in favor of adoption of the Merger Agreement;

- the agreement of Catalyst to provide written consent of its stockholders necessary to adopt the Merger Agreement, thereby approving the merger and related transactions, within 24 hours of the registration statement on Form S-4, of which this proxy statement/prospectus/information statement is a part, becoming effective; and
- the belief that the terms of the Merger Agreement, including the parties' representations, warranties and covenants, and the conditions to their respective obligations, are reasonable under the circumstances.

In the course of its deliberations, the Targacept board also considered a variety of risks and other countervailing factors related to entering into the merger, including:

- the $3.22 million termination fee and up to $1.25 million in related expenses payable to Catalyst upon the occurrence of certain events and the potential effect of such termination fee in deterring other potential acquirors from proposing an alternative transaction that may be more advantageous to Targacept stockholders;
- the substantial expenses to be incurred in connection with the merger;
- the possible volatility, at least in the short term, of the trading price of the Targacept common stock resulting from the merger announcement;
- the risk that the merger might not be consummated in a timely manner or at all and the potential adverse effect of the public announcement of the merger or on the delay or failure to complete the merger on the reputation of Targacept;
- the risk to the business of Targacept, operations and financial results in the event that the merger is not consummated;
- the strategic direction of the continuing entity following the completion of the merger, which will be determined by a board of directors of which the majority will initially be members of the current Catalyst board of directors; and
- various other risks associated with the combined organization and the merger, including those described in the section entitled "Risk Factors" beginning on page 18.

The foregoing information and factors considered by the Targacept board are not intended to be exhaustive but are believed to include all of the material factors considered by the board. In view of the wide variety of factors considered in connection with its evaluation of the merger and the complexity of these matters, the board did not find it useful, and did not attempt, to quantify, rank or otherwise assign relative weights to these factors. In considering the factors described above, individual members of the board may have given different weight to different factors. The Targacept board conducted an overall analysis of the factors described above, including thorough discussions with, and questioning of, the Targacept management team and the legal and financial advisors of Targacept, and considered the factors overall to be favorable to, and to support, its determination.

Catalyst Reasons for the Merger

The following discussion sets forth material factors considered by the Catalyst board of directors in reaching its determination to authorize the merger agreement and approve the merger; however, it may not include all of the factors considered by the Catalyst board of directors. In light of the number and wide variety of factors considered in connection with its evaluation of the merger agreement and the merger, the Catalyst board of directors did not consider it practicable to, and did not attempt to, quantify or otherwise assign relative weights to the specific factors it considered in reaching its determination. The Catalyst board of directors viewed its position and determinations as being based on all of the information available and the factors presented to and considered by it. In addition, individual directors may have given different weight to different factors.

In the course of reaching its decision to authorize the merger agreement and approve the merger, the Catalyst board of directors consulted with its senior management and legal counsel, reviewed a significant amount of information and considered a number of factors, including, among others:

- historical and current information concerning Catalyst's business, including its financial performance and condition, operations, management and competitive position;
- current industry and economic conditions, and Catalyst's prospects if it were to remain an independent company, including its need to obtain additional financing and the likely terms on which it would be able to obtain such financing;
- the cash resources of the combined organization expected to be available at the closing of the merger, and the anticipated burn rate of the combined company;
- the potential increased access to sources of capital and a broader range of investors to support the development of Catalyst's product candidates than it could otherwise obtain if it continued to operate as a privately held company;
- the potential to provide its current stockholders with greater liquidity by owning stock in a public company;
- the board's belief that no alternatives to the merger were reasonably likely to create greater value for Catalyst's stockholders after reviewing the various alternatives that were considered by Catalyst board of directors and the likelihood of achieving any alternative transaction compared to the likelihood of completing the merger;
- the expectation that the merger with Targacept would be a more time- and cost-effective means to access capital than other options considered;
- the expectation that most of Catalyst's employees, especially its management, will serve in similar roles at the combined company;
- the terms and conditions of the Merger Agreement, including, without limitation, the following:
    - the expected relative percentage ownership of Targacept securityholders and Catalyst securityholders in the combined company initially at the closing of the merger and after the potential conversion of the $37.0 million in convertible redeemable notes to be issued to Targacept stockholders in connection with the merger, and the implied valuations of Targacept and Catalyst based on Targacept's cash contribution to the combined company;
    - the expectation that the merger will be treated as a reorganization for U.S. federal income tax purposes, with the result that the Catalyst stockholders will generally not recognize taxable gain or loss for U.S. federal income tax purposes;
    - the parties' representations, warranties and covenants and the conditions to their respective obligations;
    - the limited number and nature of the conditions of the obligation of Targacept to consummate the merger; and
    - the conclusion of Catalyst board of directors that the potential termination fee of $3.22 million, plus in some situations the reimbursement of certain transaction expenses incurred in connection with the merger of up to $1.25 million, payable by Targacept to Catalyst and the circumstances when such fee may be payable, were reasonable;
- the fact that shares of Targacept common stock issued to Catalyst stockholders will be registered on a Form S-4 registration statement by Targacept and will become freely tradable for Catalyst's stockholders who are not affiliates of Catalyst and who are not parties to lock-up agreements; and
- the likelihood that the merger will be consummated on a timely basis.

Catalyst's board of directors also considered a number of uncertainties and risks in its deliberations concerning the merger and the other transactions contemplated by the Merger Agreement, including the following:

- the potential dilutive impact of the $37.0 million in convertible redeemable notes to be issued to Targacept stockholders as part of the Pre-Closing Dividend;
- the possibility that the $37.0 million in convertible redeemable notes might be redeemed rather than converted, reducing the amount of cash available for the operation of the combined company;
- the condition that Catalyst have a target cash balance at closing, and the likelihood that Catalyst would be required to raise capital in order to meet this condition;
- the possibility that Targacept could consider certain unsolicited acquisition proposals under certain circumstances should Targacept receive a superior proposal;
- the possibility that the merger might not be completed for a variety of reasons, including the failure of Targacept to obtain the required stockholder vote, and the potential adverse effect on the reputation of Catalyst and the ability of Catalyst to obtain financing in the future in the event the merger is not completed;
- the termination fee of $2.275 million payable by Catalyst to Targacept upon the occurrence of certain events, and the potential effect of such termination fee in deterring other potential acquirers from proposing an alternative transaction that may be more advantageous to Catalyst's stockholders;
- the risk that the merger might not be consummated in a timely manner or at all;
- the expenses to be incurred in connection with the merger and related administrative challenges associated with combining the companies;
- the additional that Catalyst's business will be subject to as a public company following the merger that it has not previously been subject to; and
- various other risks associated with the combined organization and the merger, including the risks described in the section entitled "Risk Factors" beginning on page 18.

The Catalyst board of directors weighed the benefits, advantages and opportunities of a potential transaction against the uncertainties and risks described above, as well as the possible diversion of management attention for an extended period of time. After taking into account these and other factors, the Catalyst board of directors approved and authorized the merger agreement and the transactions contemplated thereby, including the merger.

Opinion of the Targacept Financial Advisor

Targacept retained Stifel on October 8, 2014 to act as Targacept's financial advisor in connection with potential strategic alternatives, including a reverse merger. On May 13, 2015, Stifel delivered to the Targacept board of directors its opinion, or the Opinion, subsequently confirmed in writing as of the same date, as of that date and subject to and based on the assumptions made, procedures followed, matters considered, limitations of the review undertaken and qualifications contained in such Opinion, as to the fairness, from a financial point of view, to Targacept of the merger consideration to be paid by Targacept to the holders of shares of Catalyst common stock (other than shares that were held by Catalyst as treasury stock or that were owned by Targacept or Merger Sub and shares owned by holders who were entitled to and who properly exercised appraisal rights, which are referred to as the Excluded Holders), referred to as Shares, in the merger pursuant to the Merger Agreement.

Targacept did not impose any limitations on Stifel with respect to the investigations made or procedures followed in rendering its Opinion. In selecting Stifel, the Targacept board of directors considered, among other things, the fact that Stifel is a reputable investment banking firm with substantial experience advising companies in the healthcare and biopharmaceutical sectors and in providing strategic advisory services in general. Stifel, as part of its investment banking business, is continuously engaged in the valuation of businesses and their securities in

connection with mergers and acquisitions, negotiated underwritings, secondary distributions of listed and unlisted securities, private placements and valuations for corporate and other purposes. In the ordinary course of its business, Stifel and its affiliates may transact in the equity securities of Targacept for its own account and for the account of its customers and, accordingly, may at any time hold a long or short position in such securities.

The full text of the written Opinion that Stifel delivered to the Targacept board of directors, with Stifel's consent, is attached to this proxy statement/prospectus/information statement as Annex B and is incorporated into this document by reference. The summary of Stifel's Opinion set forth in this proxy statement/prospectus/information statement is qualified in its entirety by reference to the full text of the Opinion. Stockholders are urged to read the Opinion carefully and in its entirety for a discussion of the assumptions made, procedures followed, matters considered, limitations of the review undertaken and qualifications contained in such Opinion.

Stifel's Opinion was for the information of, and directed to, the Targacept board of directors for its information and assistance in connection with its consideration of the financial terms of the Merger. Stifel's Opinion did not constitute a recommendation to the Targacept board of directors as to how the Targacept board of directors should vote on the Merger or to any stockholder of Targacept or Catalyst as to how any such stockholder should vote at any stockholders' meeting at which the Merger is considered, or whether or not any stockholder of Targacept or Catalyst should enter into a voting, stockholders', or affiliates' agreement with respect to the Merger, or exercise any dissenters' or appraisal rights that may be available to such stockholder. In addition, Stifel's Opinion did not compare the relative merits of the Merger with any other alternative transactions or business strategies which may have been available to Targacept and did not address the underlying business decision of the Targacept board of directors or Targacept to proceed with or effect the Merger.

In connection with its Opinion, Stifel, among other things:

- Reviewed a draft dated May 10, 2015 of the Merger Agreement, which was the most recent draft made available to Stifel prior to delivery of its Opinion;
- Reviewed and analyzed certain publicly available financial and other information for each of Targacept and Catalyst, respectively, including equity research, and certain other relevant financial and operating data furnished to Stifel by the management of each of Targacept and Catalyst, respectively;
- Reviewed and analyzed certain relevant historical financial and operating data concerning Catalyst furnished to Stifel by the management of Catalyst;
- Reviewed and analyzed certain internal financial analyses, financial projections, reports and other information concerning Catalyst prepared by the management of Catalyst, including projections for Catalyst prepared by the management of Catalyst as adjusted and provided to Stifel by management of Targacept, and utilized per instruction of Targacept;
- Discussed with certain members of the management of Targacept the historical and current business operations, financial condition and prospects of Targacept and Catalyst, including that Targacept did not, and did not intend to, engage in any activity that may result in the generation of any revenue, and such other matters that Stifel deemed relevant;
- Reviewed and analyzed certain operating results of Catalyst as compared to operating results and the reported price and trading histories of certain publicly traded companies that Stifel deemed relevant;
- Reviewed and analyzed certain financial terms of the merger as compared to the publicly available financial terms of certain selected business combinations that Stifel deemed relevant;
- Reviewed and analyzed certain financial terms of certain companies that completed their initial public offerings that Stifel deemed relevant;
- Reviewed certain pro forma financial effects of the merger; and

- Reviewed and analyzed such other information and such other factors, and conducted such other financial studies, analyses and investigations, as Stifel deemed relevant for the purposes of its Opinion. In addition, Stifel took into account its assessment of general economic, market and financial conditions at that time and its experience in other transactions, as well as its experience in securities valuations and its general knowledge of the industry in which Targacept operated.

In conducting its review and rendering the Opinion, Stifel, with the Targacept board of directors' consent, relied upon and assumed, without independent verification, the accuracy and completeness of all of the financial and other information that was provided to Stifel by or on behalf of Targacept or Catalyst, or that was otherwise reviewed by Stifel, and Stifel did not assume any responsibility for independently verifying any of such information. Stifel was instructed by Targacept, and Stifel assumed, with Targacept's consent, that the only material asset of Targacept was its net cash, that no other assets of Targacept, including, without limitation, any net operating losses of Targacept, had any material value and that Targacept did not, and did not intend to, engage in any activity that may result in the generation of any revenue. Stifel was also instructed by Targacept, and Stifel assumed, with Targacept's consent, that Targacept's net cash at the closing of the Merger would be approximately $35 million. With respect to the financial forecasts supplied to Stifel by Targacept regarding Catalyst, Stifel assumed, at the direction of Targacept, that they were reasonably prepared on bases reflecting the best currently available estimates and judgments of the management of Targacept and Catalyst, as applicable, as to the future operating and financial performance of Targacept and Catalyst, as applicable, and that they provided a reasonable basis upon which Stifel could form its opinion. Such forecasts and projections were not prepared with the expectation of public disclosure. All such forecasted or projected financial information was based on numerous variables and assumptions that are inherently uncertain, including, without limitation, factors related to general economic and competitive conditions. Accordingly, actual results could vary significantly from those set forth in such forecasted or projected financial information. Stifel relied on this projected information without independent verification or analysis and did not in any respect assume any responsibility for the accuracy or completeness thereof or for any of the assumptions on which it is based.

Stifel also assumed that there were no material changes in the assets, liabilities, financial condition, results of operations, business or prospects of either Targacept or Catalyst since the respective date of the last financial statements of each company made available to Stifel, except, in the case of Targacept, for the payment of the Pre-Closing Dividend. In reaching its conclusion, Stifel did not perform a discounted cash flow analysis because projections for a sufficient period of time were not provided to Stifel. Stifel did not make or obtain any independent evaluation, appraisal or physical inspection of either Targacept's or Catalyst's assets or liabilities, the collateral securing any of such assets or liabilities, or the collectability of any such assets nor did Stifel review loan or credit files of Targacept or Catalyst, nor was Stifel furnished with any such evaluation or appraisal. Estimates of values of companies and assets do not purport to be appraisals or necessarily reflect the prices at which companies or assets may actually be sold. Because such estimates are inherently subject to uncertainty, Stifel assumed no responsibility for their accuracy.

Stifel assumed, with the Targacept board of directors' consent, that there were no factors that would delay or subject to any adverse conditions any necessary regulatory or governmental approval and that all conditions to the merger would be satisfied and not waived. In addition, Stifel assumed that the definitive Merger Agreement would not differ materially from the draft Stifel reviewed. Stifel also assumed that the Pre-Closing Dividend would be paid to the stockholders of Targacept and the merger would be completed substantially on the terms and conditions described in the Merger Agreement, without any waiver of material terms or conditions by Targacept or any other party and without any anti-dilution or other adjustment to the merger consideration, and that obtaining any necessary regulatory approvals or satisfying any other conditions for completion of the merger would not have an adverse effect on Targacept, Catalyst or the merger. Stifel assumed that the merger would be completed in a manner that complies with the applicable provisions of the Securities Act of 1933, as amended, the Securities Exchange Act of 1934, as amended, and all other applicable federal and state statutes, rules and regulations. Stifel further assumed that Targacept relied upon the advice of its counsel, independent accountants

and other advisors (other than Stifel) as to all legal, financial reporting, tax, accounting and regulatory matters with respect to Targacept, the merger and the Merger Agreement, and Stifel assumed, with the Targacept board of directors' consent, that all such advice was correct.

Stifel's Opinion was limited to whether, as of the date of its Opinion, the merger consideration to be paid by Targacept to the holders of Shares was fair to Targacept, from a financial point of view, and did not address any other terms, aspects or implications of the merger including, without limitation, the form or structure of the merger, any consequences of the merger on Targacept, its stockholders, creditors or otherwise, or any terms, aspects or implications of any voting, support, stockholder or other agreements, arrangements or understandings contemplated or entered into in connection with the merger or otherwise. Stifel's Opinion also did not consider, address or include: (i) any other strategic alternatives then (or which had been or may be) contemplated by the Targacept board of directors or Targacept; (ii) the legal, tax or accounting consequences of the merger on Targacept or the holders of Targacept's Common Stock including, without limitation, whether or not the merger would qualify as a tax-free reorganization pursuant to Section 368 of the Internal Revenue Code; (iii) the fairness of the amount or nature of any compensation to any of Targacept's officers, directors or employees, or class of such persons, relative to the consideration to the holders of Targacept Common Stock; or (iv) the effect of the merger on, or the fairness of the consideration to be received by, holders of any class of securities of Targacept, or any class of securities of any other party to any transaction contemplated by the Merger Agreement. Furthermore, Stifel did not express any opinion as to the prices, trading range or volume at which any of Targacept's or Catalyst's securities would trade following public announcement or completion of the merger.

Stifel's Opinion was necessarily based on economic, market, financial and other conditions as they existed, and on the information made available to Stifel by or on behalf of Targacept or its advisors, or information otherwise reviewed by Stifel, as of the date of its Opinion. It is understood that subsequent developments may affect the conclusion reached in its Opinion and that Stifel does not have any obligation to update, revise or reaffirm its Opinion, except in accordance with the terms and conditions of Stifel's engagement letter agreement with Targacept. Stifel did not express any opinion as to the solvency or fair value of Targacept or the ability of Targacept to pay its respective obligations when they come due. Stifel's Opinion was approved by its fairness committee.

In accordance with customary investment banking practice, Stifel employed generally accepted valuation methods and financial analyses in reaching its Opinion. The following is a brief summary of the material financial analyses performed by Stifel in arriving at its Opinion. These summaries of financial analyses alone do not constitute a complete description of the financial analyses Stifel employed in reaching its conclusions. None of the analyses performed by Stifel were assigned a greater significance by Stifel than any other, nor does the order of analyses described represent relative importance or weight given to those analyses by Stifel. The financial analyses summarized below include information presented in tabular format. In order to fully understand the financial analyses used by Stifel, the tables must be read together with the text of each summary. The tables alone do not constitute a complete description of the financial analyses. The summary text describing each financial analysis does not constitute a complete description of Stifel's financial analyses, including the methodologies and assumptions underlying the analyses, and if viewed in isolation could create a misleading or incomplete view of the financial analyses performed by Stifel. The summary text set forth below does not represent and should not be viewed by anyone as constituting conclusions reached by Stifel with respect to any of the analyses performed by it in connection with its Opinion. Rather, Stifel made its determination as to the fairness of the merger consideration to be paid by Targacept to the holders of Shares (other than the Excluded Holders) in the merger pursuant to the Merger Agreement, from a financial point of view, on the basis of its experience and professional judgment after considering the results of all of the analyses performed.

Except as otherwise noted, the information utilized by Stifel in its analyses, to the extent based on market data, was based on market data as it existed on or before May 12, 2015 and is not necessarily indicative of current market conditions. The analyses described below do not purport to be indicative of actual future results, or to

reflect the prices at which any securities may trade in the public markets, which may vary depending upon various factors, including changes in interest rates, dividend rates, market conditions, economic conditions and other factors that influence the price of securities.

In conducting its analysis, Stifel used three primary methodologies: selected publicly traded companies analysis; selected precedent acquisitions analysis; and selected precedent initial public offerings (referred to as IPO) analysis. No individual methodology was given a specific weight, nor should any methodology be viewed individually. Additionally, no company or transaction used in any analysis as a comparison is identical to Catalyst or the Merger, and they all differ in material ways. Accordingly, an analysis of the results described below is not mathematical; rather it involves complex considerations and judgments concerning differences in financial and operating characteristics of the companies and other factors that could affect the public trading value of the selected companies or transactions to which they are being compared. Stifel used these analyses to determine the impact of various operating metrics on the implied equity value of Catalyst. Each of these analyses yielded a range of implied equity values, and therefore, such implied equity value ranges developed from these analyses were viewed by Stifel collectively and not individually. In each of these analyses, Stifel reviewed selected publicly traded companies, selected precedent transactions and selected precedent IPOs to reflect Catalyst's stage of development as being in between Phase II and Phase III / Phase III Ready, as appropriate. Stifel had been informed by Targacept that Catalyst's lead program was expected to enter into a pivotal trial in 2016, the data from which would enable it to file an NDA with the FDA. As a result, Stifel included Phase III / Phase III Ready analyses. However, Stifel had also been informed by Targacept about a longer than customary time period until the beginning of such pivotal trial and a larger than customary required amount of preparations that would need to be completed prior to the beginning of such trial. As a result, Stifel also included Phase II analyses.

Selected Publicly Traded Companies Analysis

Stifel reviewed certain publicly available financial information for two sets of selected publicly traded companies. The first set included the following fifteen selected publicly traded, life sciences companies with drug candidates in ongoing Phase II clinical trials, excluding companies with a platform technology or companies whose Phase II products target multiple highly disparate therapeutic areas:

Selected Phase II Life Sciences Companies
Aldeyra Therapeutics, Inc.
Aquinox Pharmaceuticals, Inc.
Conatus Pharmaceuticals, Inc.
Fate Therapeutics, Inc.
Heat Biologics, Inc.
Mirati Therapeutics Inc.
NeuroDerm Ltd.
Minerva Neurosciences, Inc
Ocera Therapeutics, Inc.
Rexahn Pharmaceuticals, Inc.
Summit Therapeutics PLC
TRACON Pharmaceuticals, Inc.
Transition Therapeutics Inc.
Viking Therapeutics, Inc.
Vitae Pharmaceuticals, Inc.

Stifel also reviewed the following sixteen selected publicly traded, life sciences companies with drug candidates in ongoing Phase III clinical trials, Phase II/III clinical trials or Phase II with reported data (we refer to Phase II with reported data in this section as Phase III Ready), excluding companies with a platform technology or

companies whose Phase III products target multiple highly disparate therapeutic areas. For those companies which have already initiated their Phase III clinical trial, Stifel included only those companies which started their trial no earlier than 2014 and will receive data in 2016 or later, if disclosed by the respective company:

Selected Phase III / III Ready Life Sciences Companies
Achaogen, Inc.
Cara Therapeutics Inc.
Carbylan Therapeutics, Inc.
CoLucid Pharmaceuticals, Inc.
CymaBay Therapeutics, Inc.
CytRx Corporation
Esperion Therapeutics, Inc.
Flexion Therapeutics, Inc.
GlycoMimetics, Inc.
Inotek Pharmaceuticals Corporation
Marinus Pharmaceuticals Inc.
NephroGenex, Inc.
Ohr Pharmaceutical Inc.
Proteon Therapeutics, Inc.
Tokai Pharmaceuticals, Inc.
Versartis, Inc.

Stifel reviewed the ranges of equity value of the selected companies based on closing stock prices on May 12, 2015 and the ranges of enterprise value of the selected companies (calculated as equity value based on closing stock prices on May 12, 2015, plus total debt less cash) as converted into equity value, utilizing Catalyst's projected capital structure as of August 15, 2015, as per management of Targacept. This analysis resulted in the following ranges of implied equity value of Catalyst:

Analysis	Implied Equity Value of Catalyst (in millions)
Phase II Equity Value Analysis	$ 126.3 – $169.3
Phase II Enterprise Value Analysis	$ 85.9 – $130.3
Phase III/ Phase III Ready Equity Value Analysis	$ 174.1 – $331.9
Phase III/ Phase III Ready Enterprise Value Analysis	$ 123.0 – $249.8

Stifel noted that the equity and enterprise value ranges of Catalyst implied by this analysis are greater than the current market price of the shares of Targacept being offered. Stifel selected the companies on the basis of various factors, including the phase of clinical development and the similarity of the lines of business, although, as noted above, no company used in this analysis is identical to Catalyst. Accordingly, these analyses are not purely mathematical, but also involve complex considerations and judgments concerning the differences in financial and operating characteristics of the selected companies.

Selected Precedent Acquisitions Analysis

Stifel reviewed certain publicly available information for two sets of precedent transactions in the life sciences space. The first set included the following thirty selected business combinations of life sciences companies, announced subsequent to January 1, 2007, involving targets with Phase II products at the time of acquisition, excluding targets with a platform technology or targets whose Phase II products were targeting multiple highly disparate therapeutic areas at the time of acquisition:

Selected Phase II Precedent Transactions

Date	Target	Acquiror
06/03/14	Labrys Biologics, Inc.	Teva Pharmaceutical Industries Ltd.
05/12/14	Lumena Pharmaceuticals, Inc.	Shire plc
01/12/14	Sirna Therapeutics Inc.	Alnylam Pharmaceuticals, Inc.
11/19/13	EOS (Ethical Oncology Science) S.p.A.	Clovis Oncology, Inc.
06/17/13	Aragon Pharmaceuticals, Inc.	Johnson & Johnson
05/08/13	Inviragen, Inc.	Takeda Pharmaceutical Company Limited
12/12/12	YM BioSciences Inc.	Gilead Sciences, Inc.
08/30/12	Elevation Pharmaceuticals	Sunovion Pharmaceuticals
03/15/12	Ferrokin Biosciences Inc.	Shire Pharmaceuticals LLC
02/14/12	Stromedix, Inc.	Biogen Idec Inc.
12/28/11	Enobia Pharma Corp.	Alexion Pharmaceuticals, Inc.
12/20/11	Intellikine, Inc.	Takeda Pharmaceutical Company Limited
11/22/11	Excaliard Pharmaceuticals	Pfizer Inc.
06/13/11	Synageva BioPharma Corp.	Trimeris, Inc.
02/22/11	Calistoga Pharmaceuticals, Inc.	Gilead Sciences, Inc.
01/10/11	Synosia Therapeutics Holding AG	Biotie Therapies Corp.
06/30/10	TagreGen, Inc.	Sanofi-aventis
12/14/09	Calixa Therapeutics, Inc.	Cubist Pharmaceuticals, Inc.
10/01/09	Fovea Pharmaceuticals SA	Sanofi-aventis
09/13/09	ESBATech AG	Alcon, Inc.
05/29/09	CuraGen Corporation	Celldex Therapeutics, Inc.
11/25/08	Memory Pharmaceuticals Corp.	Roche Holdings AG
09/24/08	Pharmacopeia, Inc,	Ligand Pharmaceuticals, Inc.
08/05/08	Adenosine Therapeutics, LLC	Clinical Data, Inc.
06/04/08	Protez Pharmaceuticals Inc.	Novartis AG
10/15/07	Biolipox AB	Orexo AB
07/25/07	Systems Medicine, Inc.	Cell Therapeutics, Inc.
06/06/07	Alantos Pharmaceuticals, Inc.	Amgen, Inc.
03/12/07	Oxxon Therapeutics Limited	Oxford BioMedica plc
03/05/07	Hypnion, Inc.	Eli Lilly & Co.

Stifel also reviewed the following nine selected business combinations of life sciences companies, announced subsequent to January 1, 2007, involving targets with Phase III Ready products at the time of acquisition, excluding targets with a platform technology or targets whose Phase III Ready products were targeting multiple highly disparate therapeutic areas at the time of acquisition:

Selected Phase III Ready Precedent Transactions

Date	Target	Acquiror
10/27/14	Brabant Pharma Limited	Zogenix, Inc.
09/24/14	Civitas Therapeutics, Inc.	Acorda Therapeutics, Inc.
04/10/12	KAI Pharmaceuticals	Amgen Inc.
02/29/12	Boston Biomedical, Inc.	Dainippon Sumitomo Pharma Co., Ltd.
03/21/11	Gemin X Pharmaceuticals, Inc.	Cephalon, Inc.
12/02/10	Transave, Inc.	Insmed Incorporated
12/23/09	Novexel SA	AstraZeneca PLC
10/12/09	Proteolix, Inc.	Onyx Pharmaceuticals, Inc.
06/04/07	Ilypsa, Inc.	Amgen Inc.

Stifel reviewed the ranges of equity value of the targets based on the purchase consideration for each selected transaction and the ranges of enterprise value of the targets (calculated as equity value based on the purchase consideration, plus total debt less cash) as converted into equity value, utilizing Catalyst's projected capital structure as of May 31, 2015, as per management of Targacept. This analysis resulted in the following ranges of implied equity value of Catalyst:

Analysis	Implied Equity Value of Catalyst (in millions)
Phase II Equity Value Analysis	$ 120.0 – $181.2
Phase II Enterprise Value Analysis	$ 107.4 – $175.7
Phase III Ready Equity Value Analysis	$ 272.6 – $276.0
Phase III Ready Enterprise Value Analysis	$ 276.4 – $281.0

Stifel noted that the equity and enterprise value ranges of Catalyst implied by this analysis are greater than the current market price of the shares of Targacept being offered.

Selected Precedent IPO Analysis

Stifel reviewed certain publicly available information for two sets of selected life sciences IPOs. The first set included the following nineteen selected IPOs of life sciences companies, priced subsequent to January 1, 2013, involving companies with Phase II products at the time of IPO, excluding targets with a platform technology or targets whose Phase II products were targeting multiple highly disparate therapeutic areas at the time of IPO:

Selected Phase II Precedent IPOs	Date
Viking Therapeutics, Inc.	04/28/15
Summit Therapeutics plc	03/05/15
TRACON Pharmaceuticals, Inc.	01/29/15
NeuroDerm Ltd.	11/14/14
Marinus Pharmaceuticals, Inc.	07/31/14
Minerva Neurosciences, Inc.	07/01/14
Zafgen, Inc.	06/18/14
Scynexis, Inc.	05/02/14
Versartis, Inc.	03/21/14
Akebia Therapeutics, Inc.	03/20/14
Galmed Pharmaceuticals Ltd.	03/12/14
Recro Pharma, Inc.	03/07/14
Aquinox Pharmaceuticals Inc.	03/07/14
Flexion Therapeutics, Inc.	02/12/14
Tetralogic Pharmaceuticals Corporation	12/12/13
Sophiris Bio, Inc.	08/16/13
Conatus Pharmaceuticals Inc.	07/25/13
Esperion Therapeutics, Inc.	06/26/13
Ambit Biosciences Corporation	05/16/13

Stifel also reviewed the following twelve selected IPOs of life sciences companies, priced subsequent to January 1, 2013, involving companies with Phase III Ready products at the time of IPO, excluding targets with a platform technology or targets whose Phase III products were targeting multiple highly disparate therapeutic areas at the time of IPO:

Selected Phase III Ready Precedent IPOs	Date
Inotek Pharmaceuticals	02/18/15
Neothetics, Inc.	11/19/14
Tokai Pharmaceuticals, Inc.	09/16/14
Dipexium Pharmaceuticals Inc.	03/13/14
NephroGenex, Inc.	02/12/14
Cara Therapeutics Inc.	01/31/14
GlycoMimetics, Inc.	01/10/14
Aerie Pharmaceuticals, Inc.	10/25/13
Evoke Pharma, Inc.	09/25/14
Alcobra Ltd.	05/22/14
Chimerix, Inc.	04/11/13
Tetraphase Pharmaceuticals, Inc.	03/20/13

Stifel reviewed the ranges of pre-money equity values of the selected companies based on the pricing of their respective IPOs. This analysis resulted in the following ranges of implied equity value of Catalyst:

Analysis	Implied Equity Value of Catalyst (in millions)
Phase II Pre-Money Equity Value at IPO	$ 83.9 – $112.1
Phase III Ready Pre-Money Equity Value at IPO	$ 84.6 – $123.2

Stifel noted that the equity value ranges of Catalyst implied by this analysis are greater than the current market price of the shares of Targacept being offered. Stifel selected the companies on the basis of various factors, including the phase of clinical development and the similarity of the lines of business, although, as noted above, no company used in this analysis is identical to Catalyst. Accordingly, these analyses are not purely mathematical, but also involve complex considerations and judgments concerning the differences in financial and operating characteristics of the selected companies.

Miscellaneous

The preparation of a fairness opinion is a complex process and is not necessarily susceptible to a partial analysis or summary description. In arriving at its Opinion, Stifel considered the results of all of its analyses as a whole and did not attribute any particular weight to any analysis or factor considered by it. Stifel believes that the summary provided and the analyses described above must be considered as a whole and that selecting portions of these analyses, without considering all of them, would create an incomplete view of the process underlying Stifel's analyses and Opinion; therefore, the range of valuations resulting from any particular analysis described above should not be taken to be Stifel's view of the actual value of Catalyst.

Stifel is acting as financial advisor to Targacept in connection with the Merger. Targacept agreed to pay Stifel an aggregate fee of $1.65 million for its services, of which $50,000 was paid when Stifel was engaged, $500,000 was paid when Stifel delivered its initial opinion, $350,000 was paid when Stifel delivered its Opinion, and the remainder of which is contingent upon completion of the Merger. Targacept has agreed to indemnify Stifel for certain liabilities arising out of Stifel's engagement. Stifel may seek to provide investment banking services to Catalyst or its affiliates in the future, for which Stifel would seek customary compensation.

Certain Prospective Financial Information

In connection with the proposed merger, Catalyst management provided certain prospective financial information to Targacept's management, board of directors and Stifel. In a subsequent internal financial analysis Targacept management made certain adjustments to Catalyst's prospective financial information in order to reflect Targacept management's assessment of prospective Catalyst operating cash flows without giving effect to the potential for additional financings related to the merger, potential additional equity offerings, potential expansion of program development or potential collaborations or partnering opportunities around the development of various programs. These adjustments resulted in prospective financial information that Targacept management believes more clearly reflects the anticipated cash operating needs of Catalyst as a stand-alone entity, and this information is summarized in the table below. The adjusted prospective financial information was also provided to Stifel and the board of directors. The projections of Catalyst's financial information, as modified by Targacept's management, were not prepared with a view toward public disclosure, compliance with published guidelines of the American Institute of Certified Public Accountants for preparation and presentation of prospective financial information, or GAAP. Catalyst's financial projections, as modified by Targacept's management, do not give effect to any changes or expenses as a result of the merger or any other effects of the merger, and assumes no additional financing or partnering activity. Further, Catalyst's projections, as modified by Targacept's management, do not give effect to events that may impact Catalyst's business following the closing of the merger, including (but not limited to) timing and expansion of Catalyst's business strategy to focus on additional program development, all of which together may significantly impact the projections.

Due to the early stage of development of Catalyst's business and its drug candidates as well as the inherent lack of certainty in respect of these projections, neither Targacept nor Catalyst considers Catalyst's financial information as projected by Catalyst or as projected by Targacept's management to be a reliable prediction of future results.

	Catalyst 2015 – 2017 Three-Year Forecast	Targacept Management Adjustments	Adjusted 2015 – 2017 Three-Year Forecast	Adjusted Financial Data For the Fiscal Year ending December 31,		
				2015E	2016P	2017P
				($ in millions)		
Total Revenue	**$ 43.0**	**$ (37.2)**	**$ 5.8**	**$ 1.8**	**$ 1.4**	**$ 2.6**
Less: General and Administrative Expenses	(19.3)	—	(19.3)	(6.6)	(6.3)	(6.4)
Less: Research and Development	(60.8)	13.9	(46.9)	(9.6)	(19.2)	(18.1)
EBIT	**$ (37.1)**	**$ (23.3)**	**$ (60.4)**	**$(14.4)**	**$(24.1)**	**$(21.9)**
Beginning Cash Balance	**$ 1.6**	**$ —**	**$ 1.6**	**$ 1.6**	**$ (9.6)**	**$(33.8)**
Plus: Proceeds from merger / equity financing	83.6	(80.3)	3.3	3.3	—	—
Less: EBIT	(37.1)	(23.3)	(60.4)	(14.4)	(24.1)	(21.9)
Less: Capital Expenditures	(0.3)	—	(0.3)	(0.1)	(0.1)	(0.1)
Ending Cash Balance	**$ 47.8**	**$ (103.6)**	**$ (55.8)**	**$ (9.6)**	**$(33.8)**	**$(55.8)**

Interests of the Targacept Directors and Executive Officers in the Merger

In considering the recommendation of the Targacept board of directors with respect to issuing shares of Targacept common stock as contemplated by the Merger Agreement and the other matters to be acted upon by the Targacept stockholders at the Targacept annual stockholders meeting, the Targacept stockholders should be aware that certain members of the board of directors and executive officers of Targacept have interests in the merger that may be different from, or in addition to, the interests of the Targacept stockholders. These interests relate to or arise from, among other things:

- severance benefits to which each of Targacept's executive officers would become entitled in the event of a change of control of Targacept and/or his covered termination of employment within specified periods of time relative to the completion of the merger;
- the accelerated vesting of certain of the stock awards held by the Targacept executive officers and board members in connection with the completion of the merger; and
- the agreement that three Targacept directors will continue to serve on the board of directors of the combined company following the completion of the merger.

The board of directors of Targacept was aware of these potential conflicts of interest and considered them, among other matters, in reaching their respective decisions to approve the Merger Agreement and the merger, and to recommend, as applicable, that the Targacept stockholders approve the Targacept proposals to be presented to the Targacept stockholders for consideration at the Targacept annual stockholders meeting as contemplated by this proxy statement/prospectus/information statement.

Ownership Interests

As of July 15, 2015, all directors and executive officers of Targacept directly or indirectly owned approximately 1.0% of the shares of Targacept common stock. The affirmative vote of the holders of a majority of the shares of Targacept common stock having voting power present in person or represented by proxy at the Targacept annual stockholders meeting is required for approval of Targacept Proposal Nos. 1, 4, 6, 7, 8 and 9. The affirmative vote of the holders of a majority of shares of Targacept common stock having voting power outstanding on the record date for the Targacept annual stockholders meeting is required for approval of Targacept Proposal Nos. 2 and 3. The affirmative vote of a plurality of the votes properly cast at the Targacept annual stockholders meeting is required for approval of Proposal No. 5. Certain Targacept officers and directors, and their affiliates, also entered into voting agreements in connection with the merger. For a more detailed discussion of the voting agreements see the section entitled "Agreements Related to the Merger—Voting Agreements" beginning on page 137.

Golden Parachute Compensation

Overview

This section sets forth the information required by Item 402(t) of Regulation S-K regarding the compensation for each of Targacept's named executive officers that is based on or otherwise relates to the merger. This compensation is referred to as "golden parachute" compensation by the applicable SEC disclosure rules, and in this section Targacept uses such term to describe the merger-related compensation payable to Targacept's named executive officers.

Employment Agreement with Dr. Hill

Our employment agreement with Dr. Hill, as amended, continues until terminated either by Targacept or by him. The employment agreement provides for a minimum annual base salary that is to be reviewed and subject to increase in accordance with Targacept's policies and procedures. Dr. Hill is also eligible to receive stock-based awards and to earn an annual bonus based on a target percentage of 50% of his annual base salary or such higher amount as the board of directors or Compensation Committee may approve.

If Dr. Hill's employment with Targacept terminates for any reason, he is entitled to receive a lump sum equal to (i) any base salary earned and due but not yet paid through the effective date of termination plus (ii) any bonus or other compensation earned and due pursuant to the express terms of any Targacept plan or program but not yet paid through the effective date of termination. In addition, if Targacept (or a successor) terminates Dr. Hill's employment other than for "Just Cause," or if he terminates his employment within one year following the first occurrence of "Good Reason," he is entitled to receive:

- severance following termination equal to his then-current monthly base salary for 12 months (or, if the termination is concurrent with or within 12 months following, or in connection with but prior to, a defined change in control of Targacept, equal to his then-current monthly base salary and one-twelfth of his then-current target bonus for 18 months), payable monthly, except that any amount that would exceed the exemption under Section 409A of the Internal Revenue Code of 1986, as amended, would be payable in a lump sum two and one-half months following the end of Targacept's taxable year in which the termination occurs;
- if the termination is concurrent with or within 12 months following, or in connection with but prior to, a defined change in control of Targacept, full acceleration of unvested options to purchase capital stock or restricted stock; and otherwise six (6) months acceleration of vesting for unvested options to purchase any capital stock, and restricted stock or other equity-based awards outstanding as of the effective date of termination;
- continuation of the health and life insurance benefits coverage provided to him as of the date of termination for the period during which he receives severance, provided Dr. Hill (i) makes a timely election of continuation under the Consolidated Omnibus Budget Reconciliation Act of 1985 (commonly referred to as "COBRA") and (ii) continues paying the same percentage of the total cost for such life insurance or health care coverage as he was paying at the time of termination; and
- up to $10,000 in outplacement counseling services, if incurred by him and paid by Targacept within specified time periods.

"Just Cause" under the employment agreement means Dr. Hill's: (i) willful and material breach of the agreement and his continued failure to cure the breach for a specified period; (ii) conviction of, or entry of a plea of guilty or nolo contendere to a felony or a misdemeanor involving moral turpitude; (iii) willful commission of an act of fraud, breach of trust, or dishonesty including, without limitation, embezzlement, that results in material damage or harm to Targacept's business, financial condition or assets; (iv) intentional damage or destruction of substantial property of Targacept's; or (v) a violation of specified company policies or an act or omission contrary to generally expected ethical or professional standards.

"Good Reason" under the employment agreement means: (i) the material breach by Targacept (or a successor) of any material provision of the agreement; (ii) any purported termination of Dr. Hill's employment that is not effected in accordance with the agreement; (iii) any uncured failure by Targacept (or a successor) to pay Dr. Hill any amounts of salary or bonus compensation that have become due and payable; (iv) a reduction in Dr. Hill's annual base salary, unless the reduction is part of, and at the same percentage as, an across-the-board salary reduction for all similarly-situated executives; (v) any material diminution in Dr. Hill's duties, responsibilities, authority, reporting structure, status or title, unless approved by him; or (vi) Dr. Hill being required to relocate to a location more than fifty (50) miles from his initial worksite (Winston-Salem, North Carolina); in each case conditional on Dr. Hill providing written notice of the initial existence of Good Reason within 90 days and the Good Reason continuing to exist 30 days after the notice.

The employment agreement provides that Dr. Hill shall at all times maintain the confidentiality of Targacept's proprietary information and shall not engage in a business defined in the agreement as competitive to Targacept until 12 months after termination of employment with Targacept.

Employment Agreements with Mr. Cullison, Ms. Hodges and Mr. Rock

Our employment agreements with each of Mr. Cullison, Ms. Hodges and Mr. Rock provide for a minimum annual base salary that is to be reviewed and subject to increase in accordance with Targacept's policies and procedures. Each of Mr. Cullison, Ms. Hodges and Mr. Rock also is eligible to receive stock-based awards and to earn an annual cash bonus based on a target percentage of his or her annual base salary. Each of the employment agreements provides for a minimum target bonus percentage, which may be increased at the discretion of the board of directors or Compensation Committee. For fiscal 2014, the target bonus percentage for Mr. Cullison and Ms. Hodges was 30% and the target bonus percentage for Mr. Rock was 35%.

If any of these executives' employment with Targacept terminates for any reason, then each are entitled to receive a lump sum equal to any salary, bonus and other compensation earned and due but not yet paid.

In addition, if Targacept (or a successor) terminates the employment of Mr. Cullison, Ms. Hodges or Mr. Rock other than for defined "Just Cause," or if Mr. Cullison, Ms. Hodges or Mr. Rock terminates his or her employment within one year following the first occurrence of defined "Good Reason," then he or she is entitled to receive:

- severance following termination equal to his or her then-current monthly base salary for nine months except that any amount that would exceed the exemption under Section 409A of the Internal Revenue Code of 1986, as amended, would be payable in a lump sum two and one-half months following the end of Targacept's taxable year in which the termination occurs;
- six months acceleration of unvested options to purchase capital stock, restricted stock, or other equity-based awards;
- continuation of the health and life insurance benefits coverage provided to him or her as of the date of termination for the period during which he or she receives severance; and
- up to $10,000 in outplacement counseling services, if incurred by him or her and paid by Targacept within specified time periods.

If Targacept (or a successor) terminates the employment of Mr. Cullison, Ms. Hodges or Mr. Rock other than for defined "Just Cause," or if Mr. Cullison, Ms. Hodges or Mr. Rock terminates his or her employment within one year following the first occurrence of "Good Reason," and the termination is concurrent with or within 12 months following, or in connection with but prior to, a defined change in control of Targacept, then he or she is entitled to receive:

- severance following termination equal to his or her then-current monthly base salary and one-twelfth of his or her target annual bonus for twelve months except that any amount that would exceed the

exemption under Section 409A of the Internal Revenue Code of 1986, as amended, would be payable in a lump sum two and one-half months following the end of Targacept's taxable year in which the termination occurs;

- full acceleration of all unvested options to purchase capital stock, restricted stock, or other equity-based awards;
- continuation of the health and life insurance benefits coverage provided to him or her as of the date of termination for the period during which he receives severance; and
- up to $10,000 in outplacement counseling services, if incurred by him or her and paid by Targacept within specified time periods.

"Just Cause" under each of Mr. Cullison's, Ms. Hodges' and Mr. Rock's employment agreements means his or her: (i) willful and material breach of the agreement and his or her continued failure to cure the breach for a specified period; (ii) conviction of, or entry of a plea of guilty or nolo contendere to a felony or a misdemeanor involving moral turpitude; (iii) willful commission of an act of fraud, breach of trust, or dishonesty including, without limitation, embezzlement, that results in material damage or harm to Targacept's business, financial condition or assets; (iv) intentional damage or destruction of substantial property of Targacept's; (v) violation of policies prohibiting employment discrimination or workplace harassment; or (vi) commission of any act (or omission) contrary to the ethical or professional standards expected in his profession. For Mr. Rock, "Just Cause" shall not mean any action or inaction to the extent it results from his required compliance with an ethical legal obligation applicable to his conduct as an attorney-at-law.

"Good Reason" under each of Mr. Cullison's, Ms. Hodges' and Mr. Rock's employment agreements means: (i) any purported termination of his or her employment that is not effected in accordance with the agreement; or (ii) any uncured failure to confer the benefits and compensation provided under the agreement or, in some cases, to comply with any other material provision of the agreement, in each case conditional on his or her providing written notice of the initial existence of Good Reason within 90 days and the Good Reason continuing to exist 30 days after the notice.

The employment agreement with each of Mr. Cullison, Ms. Hodges and Mr. Rock provides that he or she shall at all times maintain the confidentiality of Targacept's proprietary information and shall not engage in a business defined in the agreement as competitive to Targacept until nine months after termination of employment with Targacept.

On May 13, 2015, Targacept terminated the employment of Mr. Cullison effective as of May 31, 2015.

Change in Control

The employment agreements define "change in control" to mean, generally: (1) the acquisition by any person of 50% or more of Targacept's outstanding common stock; (2) the completion of a merger or consolidation involving Targacept if the stockholders of Targacept immediately before such merger or consolidation do not, as a result of such merger or consolidation, own, directly or indirectly, more than 50% of the outstanding common stock of the surviving company; (3) a sale or other disposition of all or substantially all of the assets of Targacept; or (4) a change in the majority composition of the Targacept board of directors not approved by a majority of the directors in office before the change.

For purposes of the employment and equity arrangements above, the completion of the merger will constitute a "change of control" under each arrangement.

Aggregate Amounts of Potential Compensation

The table below summarizes potential golden parachute compensation that each named executive officer could be entitled to receive from Targacept if the merger is completed and if the named executive officer thereafter incurs a termination of employment under certain circumstances, as discussed below. As discussed in "—Interests of the Targacept Directors and Executive Officers in the Merger" above, it is currently expected that neither Dr. Hill, Mr. Cullison, Ms. Hodges nor Mr. Rock will continue to be employed by Targacept following the closing of the merger and, accordingly, all will be entitled to receive the severance and benefits described above. Please note that the amounts indicated below are estimates based on multiple assumptions that may or may not actually occur, including assumptions described herein. Some of these assumptions are based on information not currently available and, as a result, the actual amounts, if any, to be received by named executive officer may differ in material respects from the amounts set forth below.

For purposes of calculating such potential golden parachute compensation, Targacept has assumed that the merger had occurred on December 31, 2014, including with respect to calculating the portion of equity awards subject to accelerated vesting, and have further assumed that the named executive officers will incur a termination of employment on such date that would entitle them to the benefits set forth in the table below.

	Golden Parachute Compensation			
	Cash(1)	Equity(2)	Perquisites Benefits(3)	Total
Stephen A. Hill	$1,158,750	$460,250	$ 42,646	$1,661,646
Mauri K. Hodges	$ 390,000	$105,200	$ 12,852	$ 508,052
Scott N. Cullison(4)	$ 273,000	$105,200	$ 21,755	$ 399,955
Patrick C. Rock	$ 439,398	$118,350	$ 11,981	$ 569,729
Steven M. Toler(5)	$ 344,793	$118,350	$ 24,653	$ 487,796

(1) Amounts in this column represent the lump sum cash severance payment to be paid to each executive upon a termination of employment without "Cause" or a termination for "Good Reason" (as defined in each executive's respective employment arrangement), subject to the execution and non-revocation of a general release of claims in favor of Targacept. Dr. Hill would receive 18 months base salary continuation and his then-current target annual bonus for 18 months for termination related to a Change in Control. Mr. Cullison, Ms. Hodges and Mr. Rock each would receive 12 months base salary continuation and his or her then-current target annual bonus for 12 months for termination related to a Change in Control.

(2) These amounts reflect the aggregate amount attributable to the accelerated vesting of all outstanding stock options and restricted stock held by the named executive officers. Upon termination related to change in control, there is full acceleration (100%) on the vesting of stock options and restricted stock for each of Dr. Hill, Mr. Cullison, Ms. Hodges and Mr. Rock. The amounts in this column related to stock options are calculated for each outstanding option based on the positive difference between (i) $2.63, the closing price of Targacept's common stock on the NASDAQ Global Select Market on December 31, 2014, and (ii) the exercise price per share of each stock option for which vesting would be accelerated. Stock options with an exercise price per share above $2.63 are disregarded for this purpose. For restricted stock, the amounts in this column consider the value of each share of restricted stock to be $2.63, the closing price of Targacept's common stock on the NASDAQ Global Select Market on the day the share vests, or December 31, 2014.

(3) The amounts in this column are calculated based on (a) the duration of the respective continuation periods and (b) the monthly premiums that Targacept pays for the medical, dental and life insurance coverage received by the named executive officer as of December 31, 2014.

(4) On May 13, 2015, Targacept terminated the employment of Mr. Cullison other than for just cause in connection with the anticipated change in control of Targacept. Mr. Cullison will receive a severance payment as called for by the terms of his employment agreement.

(5) On March 11, 2015, Targacept terminated the employment of Dr. Toler other than for just cause in connection with the anticipated change in control of Targacept. Dr. Toler received a severance payment as called for by the terms of his employment agreement.

Indemnification of the Targacept and Catalyst Officers and Directors

Pursuant to the Merger Agreement, upon the completion of the merger, Targacept and Merger Sub agreed that all rights to indemnification, exculpation or advancement of expenses now existing in favor of, and all limitations on the personal liability of each present and former director and officer of Targacept or Catalyst and their respective subsidiaries as provided for in their respective organizational documents in effect as of the date of the Merger Agreement, will continue to be honored and in full force and effect for a period of six years after the closing of the merger.

The certificate of incorporation and by-laws of the combined company will contain provisions with respect to indemnification, exculpation from liability and advancement of expenses that are at least as favorable as those currently in Targacept's organizational documents and Catalyst's organizational documents, as applicable, and during such six year period following the effective time, Targacept will not amend, repeal or otherwise modify such provisions in any manner that would materially and adversely affect the rights of the directors or officers of Targacept or Catalyst in respect of actions or omissions occurring at or prior to the effective time of the merger.

The Merger Agreement also provides that each of Targacept and Catalyst will purchase a six-year "tail" policy under its existing directors' and officers' liability insurance policy, with an effective date as of the closing, provided that Targacept or Catalyst, as the case may be, may substitute policies of at least the same coverage containing terms and conditions that are not less favorable in any material respect. In no event will either Targacept or Catalyst be required to expend more than an amount equal to 200% of the respective current annual premiums paid by such party for such insurance. During the term of the respective "tail" policies, neither Targacept nor the combined company will take any action following the closing of the merger to cause their respective "tail" policies to be cancelled or any provision of such policies to be amended or waived in any manner that would adversely affect in any material respect the rights of their former and current officers and directors.

Interests of Catalyst Directors and Executive Officers in the Merger

In considering the recommendation of the Catalyst board of directors with respect to adopting the Merger Agreement, Catalyst stockholders should be aware that certain members of the board of directors and executive officers of Catalyst have interests in the merger that may be different from, or in addition to, interests they may have as Catalyst stockholders. The Catalyst board of directors was aware of these potential conflicts of interest and considered them, among other matters, in reaching their respective decisions to approve the Merger Agreement, the merger and related transactions, and to recommend that the Catalyst stockholders sign and return the written consent as contemplated by this proxy statement/prospectus/information statement.

Ownership Interests. Certain of Catalyst's directors and executive officers currently hold shares of Catalyst's common stock or shares of convertible preferred stock, which shares will be converted into shares of Catalyst common stock prior to the closing of the merger. Each one share of Series AA convertible preferred stock, Series BB convertible preferred stock, Series CC convertible preferred stock, Series D convertible preferred stock, and Series E convertible preferred stock converts into one share of common stock. Each one share of Series BB-1 convertible preferred stock converts into 1.08748 shares of common stock. Each one share of Series F convertible preferred stock converts into ten shares of common stock. The table below sets forth the anticipated ownership of Catalyst's common stock by Catalyst's directors and executive officers immediately prior to the closing of the merger based on their ownership of Catalyst's capital stock as of May 15, 2015.

Stockholder Name	Number of Shares of Catalyst Common Stock Immediately Prior to the Closing of the Merger	Number of Shares of Catalyst Common Stock Subject to Warrants Immediately Prior to the Closing of the Merger
Nassim Usman, Ph.D.(1)	1,947,039	761
Harold E. Selick, Ph.D.(2)	424,941	7,532
Ralph E. Christoffersen, Ph.D.(3)	—	—
Jeff Himawan, Ph.D.(4)	—	—
Augustine Lawlor(5)	—	—
Michael F. Powell, Ph.D.(6)	—	—
Asish K. Xavier, Ph.D.(7)	—	—
Edwin L. Madison, Ph.D.(8)	811,746	761
Fletcher Payne(9)	393,510	—

(1) Consists of 1,574,091 shares of common stock, 15,742 shares of Series D convertible preferred stock, 3,046 shares of Series E convertible preferred stock and 761 shares of Series E convertible preferred stock issuable upon the exercise of warrants held by Nassim Usman, Ph.D., and Susan L. Usman, Trustees of the Usman Family Trust and 35,416 shares of Series F convertible preferred stock held by Equity Trust Company Custodian FBO Nassim Usman IRA.

(2) Consists of 80,000 shares of common stock, 30,131 shares of Series E convertible preferred stock, 31,481 shares of Series F convertible preferred stock and 7,532 shares of Series E convertible preferred stock issuable upon the exercise of warrants.

(3) Dr. Christoffersen is a member of Catalyst's board of directors and a managing member of Morgenthaler Management Partner VIII, LLC, which is the general partner of Morgenthaler Partners VIII, L.P. For additional information regarding ownership of Catalyst capital stock by Morgenthaler Partners VIII, L.P., please see the table below.

(4) Dr. Himawan is a member of Catalyst's board of directors and a managing director of Essex Woodlands Health Ventures VIII, LLC, which is the general partner of Essex Woodlands Health Ventures VIII, L.P. Essex Woodlands Health Ventures VIII, L.P. is the general partner of each of Essex Woodlands Health Ventures Fund VIII, L.P., Essex Woodlands Health Ventures Fund VIII-A, L.P. and Essex Woodlands Health Ventures Fund VIII-B, L.P. (each an "Essex Entity" and collectively, the "Essex Entities"). For additional information regarding ownership of Catalyst capital stock by the Essex Entities, please see the table below.

(5) Mr. Lawlor is a member of Catalyst's board of directors and a managing director of HealthCare Partners VIII, LLC, the general partner of HealthCare Partners VIII, L.P. HealthCare Partners VIII, L.P. is the general partner of HealthCare Ventures VIII, L.P. For additional information regarding ownership of Catalyst capital stock by HealthCare Ventures VIII, L.P., please see below.

(6) Dr. Powell is a member of Catalyst's board of directors and a managing member of Sofinnova Management VI, LLC, which is the general partner of Sofinnova Venture Partners VI, L.P. For additional information regarding ownership of Catalyst capital stock by Sofinnova Venture Partners VI, L.P., please see the table below.

(7) Dr. Xavier is a member of Catalyst's board of directors and vice president of Johnson & Johnson Innovation-JJDC, Inc. For additional information regarding ownership of Catalyst capital stock by Johnson & Johnson Innovation-JJDC, Inc., please see the table below.

(8) Consists of 730,000 shares of common stock, 3,046 shares of Series E convertible preferred stock, 7,870 shares of Series F convertible preferred stock and 761 shares of Series E convertible preferred stock issuable upon the exercise of warrants.

(9) Consists of 39,351 shares of Series F convertible preferred stock held by the Charles Payne and Nancy Payne 2000 Trust U/A Dtd 03/09/2000, for which Fletcher Payne serves as trustee.

Certain of Catalyst's other stockholders affiliated with Catalyst's directors also currently hold shares of Catalyst's common stock or shares of convertible preferred stock, which shares will be converted into shares of Catalyst common stock prior to the closing of the merger. The table below sets forth the anticipated ownership of Catalyst's common stock by other affiliates of Catalyst's directors immediately prior to the closing of the merger based on their ownership of Catalyst's capital stock as May 15, 2015.

Stockholder Name	Number of Shares of Catalyst Common Stock Immediately Prior to the Closing of the Merger	Number of Shares of Catalyst Common Stock Subject to Warrants Immediately Prior to the Closing of the Merger
Essex Entities(1)	26,219,218	203,175
Johnson & Johnson Innovation-JJDC, Inc.(2)	16,310,307	109,390
Morgenthaler Partners VIII, L.P.(3)	15,394,765	92,106
HealthCare Ventures VIII, L.P.(4)	17,012,853	125,623
Sofinnova Venture Partners VI, L.P(5)	13,057,627	34,867

(1) Consists of 19,004,527 shares of Series CC convertible preferred stock, 156,214 shares of Series D convertible preferred stock, 320,960 shares of Series E convertible preferred stock, 427,947 shares of Series F convertible preferred Stock and 184,128 shares of Series E convertible preferred stock issuable upon the exercise of warrants held directly by Essex Woodlands Health Ventures Fund VIII, L.P.; 1,370,231 shares of Series CC convertible preferred stock, 11,264 shares of Series D convertible preferred stock, 23,143 shares of Series E Preferred Stock, 30,855 shares of Series F convertible preferred stock and 13,275 shares of Series E convertible preferred stock issuable upon the exercise of a warrant held by Essex Woodlands Health Ventures Fund VIII-A, L.P.; and 595,753 shares of Series CC convertible preferred stock, 4,896 shares of Series D convertible preferred stock, 10,060 shares of Series E convertible preferred stock, 13,415 shares of Series F convertible preferred stock and 5,772 shares of Series E convertible preferred stock issuable upon the exercise of a warrant held by Essex Woodlands Health Ventures Fund VIII-B, L.P. Dr. Himawan is a member of Catalyst's board of directors and a manager of Essex Woodlands Health Ventures VIII, LLC, which is the general partner of Essex Woodlands Health Ventures VIII, L.P. Essex Woodlands Health Ventures VIII, L.P. is the general partner of each of the Essex Entities.

(2) Consists of 6,501,474 shares of Series BB-1 convertible preferred stock, 4,825,882 shares of Series CC convertible preferred stock, 64,024 shares of Series D convertible preferred stock, 196,757 shares of Series E convertible preferred stock, 472,217 shares of Series F convertible preferred stock and 109,390 shares of Series E convertible preferred stock issuable upon the exercise of a warrant held by Johnson & Johnson Innovation-JJDC, Inc. Dr. Xavier is a member of Catalyst's board of directors and vice president, venture investments of Johnson & Johnson Innovation-JJDC, Inc.

(3) Consists of 6,689,889 shares of Series BB Preferred Stock, 5,296,178 shares of Series CC Preferred Stock, 68,508 shares of Series D Preferred Stock, 192,080 shares of Series E convertible preferred stock, 314,811 shares of Series F convertible preferred stock and 92,107 shares of Series E convertible preferred stock issuable upon the exercise of a warrant held directly by Morgenthaler Partners VIII, L.P. Ralph E. Christoffersen, Ph.D. is a managing member of Catalyst's board of directors and a member of Morgenthaler Management Partner VIII, LLC, which is the general partner of Morgenthaler Partners VIII, L.P.

(4) Consists of 6,689,889 shares of Series BB convertible preferred stock, 5,296,178 shares of Series CC convertible preferred stock, 68,508 shares of Series D convertible preferred stock, 236,108 shares of Series E convertible preferred stock, 472,217 shares of Series F convertible preferred stock, and 125,623 shares of Series E convertible preferred stock issuable upon the exercise of warrants within 60 days of May 15, 2015, held directly by HealthCare Ventures VIII, L.P. The general partner of HealthCare Ventures VIII, L.P. is HealthCare Partners VIII, L.P. The general partner of HealthCare Partners VIII, L.P. is HealthCare Partners VIII, LLC.

(5) Consists of 2,833,333 shares of Series AA convertible preferred stock, 3,856,556 shares of Series BB convertible preferred stock, 3,719,135 shares of Series CC convertible preferred stock, 12,062 shares of Series D Preferred Stock, 39,351 shares of Series E convertible preferred stock, 259,719 shares of Series F convertible preferred stock, and 34,867 shares of Series E convertible preferred stock issuable upon the exercise of a warrant held by Sofinnova Venture Partners VI, L.P. Michael F. Powell, Ph.D. is a member of Catalyst's board of directors and a managing member of Sofinnova Management VI, LLC, which is the general partner of Sofinnova Venture Partners VI, L.P.

Stock Options. One of Catalyst's directors, Dr. Selick, and Catalyst's executive officers hold options to purchase shares of Catalyst common stock, which, pursuant to the Merger Agreement, will be converted into and become options to purchase shares of Targacept common stock. In connection with the conversion of the options, the number of shares subject to the options and the option exercise prices will be adjusted pursuant to the terms of the Merger Agreement. The number of shares subject to each option will be multiplied by the Exchange Ratio, rounding any resulting fractional shares down to the nearest whole share, and the exercise price of each option will be divided by the Exchange Ratio, rounding up to the nearest whole cent. The option terms will remain the same, including any vesting terms, except for Mr. Payne's stock options, which will vest in full as a result of the merger. The table below sets forth certain information with respect to the options.

Optionholder Name	Grant Date	Expiration Date	Exercise Price ($)	Number of Shares of Common Stock Underlying Option as of July 15, 2015	Number Vested as of July 15, 2015
Harold B. Selick, Ph.D.,	May 13, 2010	May 13, 2020	0.40	77,652	77,652
Nassim Usman, Ph.D.,	April 10, 2008	April 9, 2018	0.36	230,000	230,000
	March 17, 2009	March 16, 2019	0.28	1,599,969	1,599,969
	January 3, 2013	January 2, 2023	0.44	589,239	380,550
Edwin L. Madison, Ph.D.,	April 10, 2008	April 9, 2018	0.36	100,000	100,000
	March 17, 2009	March 16, 2019	0.28	701,827	701,827
	February 5, 2010	February 5, 2020	0.40	170,203	148,927
	January 3, 2013	January 2, 2023	0.44	294,619	190,275
Fletcher Payne	January 22, 2015	January 22, 2025	0.29	191,635	95,817(1)
	January 22, 2015	January 22, 2025	0.29	63,878	0(1)
	May 8, 2015	May 8, 2025	0.23	375,000	23,437

(1) Option will vest in full upon the closing of the merger.

Management Following the Merger. As described elsewhere in this joint proxy statement/prospectus/information statement, including in "Management Following the Merger" beginning on page 272, certain of Catalyst's directors and executive officers are expected to become directors and executive officers of the combined company upon the closing of the merger.

Indemnification and Insurance. Under the Merger Agreement, from the closing of the merger through the sixth anniversary of the closing, Targacept and Merger Sub agree that all rights to indemnification, exculpation or advancement of expenses now existing in favor of, and all limitations on the personal liability of each present and former director or officer, of Targacept or Catalyst and their respective subsidiaries provided for in the respective organizational documents in effect as of March 5, 2015, shall continue to be honored and in full force and effect; provided, however, that all rights to indemnification in respect of any proceeding or claims pending, asserted or made within such period shall continue until the final disposition of such proceeding or claim.

Under the Merger Agreement, the certificate of incorporation of Catalyst, as the surviving corporation in the merger, will contain provisions no less favorable with respect to indemnification, advancement of expenses and exculpation of present and former directors and officers of each of Targacept and Catalyst than are presently set forth in the certificate of incorporation and bylaws of Targacept and Catalyst, as applicable, which provisions shall not be amended, modified or repealed for a period of six years' time from the closing of the merger in a manner that would materially and adversely affect the rights thereunder of individuals who, at or prior to the closing, were officers or directors of Targacept and Catalyst.

The Merger Agreement also provides that Catalyst and Targacept shall purchase an insurance policy, which maintains in effect for six years from the closing the current directors' and officers' liability insurance policies maintained by Catalyst or substitute policies of at least the same coverage containing terms and conditions that are not materially less favorable; provided that neither Targacept nor Catalyst be required to pay more than an

amount equal to 200% of the current annual premiums paid by Targacept or Catalyst for such insurance and provided, further, that during such six years term, neither Targacept nor Catalyst, as the surviving corporation, shall take any action following the closing of the merger to cause such insurance policies to be cancelled or any provision therein to be amended or waived in any manner that would adversely affect in any material respect the rights of their former and current officers and directors.

Stock Options and Warrants

Targacept stock options and other equity awards that are vested and unexercised immediately prior to the effective time of the merger will remain outstanding and be unaffected by the merger, provided that there will be an adjustment to the exercise price and the number of shares underlying these options and equity awards to account for the Pre-Closing Dividend, in accordance with the terms of the Merger Agreement.

At the effective time of the merger, each outstanding option and warrant, whether or not vested, to purchase Catalyst common stock unexercised immediately prior to the effective time of the merger will be converted into an option or warrant to purchase Targacept common stock. All rights with respect to each Catalyst option or warrant will be assumed by Targacept in accordance with its terms. Accordingly, from and after the effective time of the merger each option or warrant assumed by Targacept may be exercised solely for shares of Targacept common stock.

The number of shares of Targacept common stock subject to each outstanding Catalyst option or warrant assumed by Targacept will be determined by multiplying the number of shares of Catalyst common stock that were subject to such option or warrant, as applicable, by the Exchange Ratio and rounding the resulting number down to the nearest whole number of shares of Targacept common stock. The per share exercise price for the Targacept common stock issuable upon exercise of each Catalyst option or warrant assumed by Targacept will be determined by dividing the per share exercise price of Catalyst common stock subject to such option or warrant, as applicable, by the Exchange Ratio and rounding the resulting exercise price up to the nearest whole cent. Any restriction on the exercise of any option or warrant will continue in full force and effect and the term, exercisability, vesting schedule and other provisions of such option or warrant, as applicable, will, subject to certain exceptions set forth in the Merger Agreement, otherwise remain unchanged.

Form of the Merger

The Merger Agreement provides that at the effective time, Merger Sub will be merged with and into Catalyst. Upon the completion of the merger, Catalyst will continue as the surviving corporation and will be a wholly owned subsidiary of Targacept.

After completion of the merger, assuming Targacept Proposal No. 3 is approved by Targacept stockholders at the Targacept annual stockholders meeting, Targacept will be renamed “Catalyst Biosciences, Inc.” and expects to trade on The NASDAQ Global Select Market under the symbol “CBIO.”

Merger Consideration

Prior to the closing, each share of Catalyst preferred stock outstanding at such time will be converted into shares of Catalyst common stock at a ratio determined in accordance with the Catalyst certificate of incorporation then in effect. At the effective time of the merger:

- each share of Catalyst common stock outstanding immediately prior to the effective time of the merger will automatically be converted into the right to receive a number of shares of Targacept common stock at a rate per share equal to the Exchange Ratio;
- each option to purchase shares of Catalyst common stock outstanding and unexercised immediately prior to the effective time of the merger will be assumed by Targacept and will become an option to purchase shares of Targacept common stock, with the number of shares and exercise price being adjusted by the Exchange Ratio; and

- each warrant to purchase shares of Catalyst preferred stock outstanding and not terminated or exercised immediately prior to the effective time of the merger will be assumed by Targacept and will become a warrant to purchase shares of Targacept common stock, with the number of shares and exercise price being adjusted by the Exchange Ratio.

The Merger Agreement provides that, promptly after the effective time of the merger, Targacept will deposit with an exchange agent acceptable to Targacept and Catalyst stock certificates representing the shares of Targacept common stock issuable to the Catalyst stockholders.

The Merger Agreement provides that, as promptly as practicable following the completion of the merger, the exchange agent will mail to each holder of record of Catalyst capital stock a letter of transmittal and instructions for surrendering the record holder's stock certificates in exchange for the shares of Targacept common stock. Upon proper surrender of Catalyst stock certificates together with a properly completed and duly executed letter of transmittal in accordance with the exchange agent's instructions, the holder of such Catalyst stock certificates will be entitled to receive a certificate representing the number of whole shares of Targacept common stock issuable to such holder pursuant to the merger and cash in lieu of any fractional share of Targacept common stock issuable to such holder. The surrendered certificates representing Catalyst common stock and Catalyst preferred stock will be cancelled.

After the effective time of the merger, each certificate representing shares of Catalyst common stock or Catalyst preferred stock that has not been surrendered will represent only the right to receive shares of Targacept common stock issuable pursuant to the merger and cash in lieu of any fractional share of Targacept common stock to which the holder of any such certificate is entitled. No interest will be paid or accrued on any cash in lieu of fractional shares payable to holders of Catalyst stock certificates.

Any holder or former holder of Catalyst common stock or Catalyst preferred stock may be subject to withholding under the Code, or under another provision of state, local or foreign tax law. To the extent such amounts are withheld and paid to the appropriate governmental entity, they will be treated as having been paid to the person to whom such amounts would otherwise have been paid.

The Merger Agreement does not include a price-based termination right, and there will be no adjustment to the Exchange Ratio (or, as a result, the number of shares of Targacept common stock that Catalyst stockholders will be entitled to receive) due to changes in the market price of Targacept common stock. Accordingly, the market value of the shares of Targacept common stock issued by virtue of the merger will depend on the market value of the shares of Targacept common stock at the time the merger closes, and could vary significantly from the market value on the date of this proxy statement/prospectus/information statement.

Exchange Ratio Calculation

The Exchange Ratio is calculated based on the number of shares of outstanding equity securities of Targacept relative to the number of outstanding equity securities of Catalyst as of the effective time of the merger, as well as the extent to which Catalyst's cash and cash equivalents at closing, less certain expenses and liabilities and not including revenues from Catalyst's collaboration agreements received after March 5, 2015 (referred to as Catalyst's "net cash"), either exceeds, by up to $1.0 million, or fails to meet, Catalyst's applicable target net cash at the effective time of the merger, all as set forth in the Merger Agreement. The Exchange Ratio will be adjusted to account for a reverse stock split of Targacept common stock at a ratio of 7-for-1, to be implemented prior to the closing of the merger and subject to the payment of cash in lieu of fractional shares.

Based on shares of Catalyst and Targacept capital stock anticipated to be outstanding as of the closing of the merger, assuming no future issuances of Targacept capital stock prior to the closing of the merger and assuming

that Catalyst's net cash at closing reaches the applicable target, subject to adjustment to account for the reverse stock split and for the payment of cash in lieu of fractional shares, the exchange ratio in the merger would be within the range of approximately 0.24 – 0.30. As a result, following the completion of the merger, Catalyst's equity holders would own in the aggregate approximately 58% of the combined company's outstanding common stock (assuming full exercise of outstanding options and warrants, whether vested or unvested) and Targacept's equity holders would own in the aggregate approximately 42% of the combined company's outstanding common stock (assuming full exercise of outstanding options and warrants, whether vested or unvested).

The actual Exchange Ratio at the closing will be subject to a downward adjustment to the extent that Catalyst's net cash at the effective time of the merger is less than the applicable target (and as a result, Catalyst equity holders could own less, and Targacept equity holders could own more, of the combined company). Likewise, to the extent Catalyst's net cash exceeds the applicable target, by up to $1.0 million, the Exchange Ratio at closing would be subject to an upward adjustment (and as a result, Catalyst equity holders could own more, and Targacept equity holders could own less, of the combined company). Further, to the extent additional Catalyst equity securities are issued, the Exchange Ratio would be subject to a downward adjustment, so that Catalyst's equity holders would own in the aggregate the same percentage of the combined company's equity as they would have had the new Catalyst issuance not occurred, with Catalyst's current equity holders all experiencing dilution with respect to the new issuance. Likewise, while Targacept has no present plans to issue new securities prior to closing, to the extent Targacept does issue any new securities, other than pursuant to the exercise of outstanding options and in connection with the issuance of redeemable convertible notes in the Pre-Closing Dividend, the Exchange Ratio would be subject to an upward adjustment so that Targacept's current equity holders would own in the aggregate the same percentage of the combined company's equity as they would had the Targacept issuance not occurred, with the Targacept current equity holders all experiencing dilution with respect to any such new issuance.

As described in "The Merger Agreement—Exchange Ratio" beginning on page 119, the rules applicable to the calculation of the Exchange Ratio are complex, and circumstances as of the effective time of the merger may result in an Exchange Ratio outside of the anticipated 0.24 – 0.30 range.

Effective Time of the Merger

The Merger Agreement requires the parties to complete the merger after all of the conditions to the completion of the merger contained in the Merger Agreement are satisfied or waived, including, among others, the adoption of the Merger Agreement by the stockholders of Catalyst and the approval by the Targacept stockholders of the issuance of Targacept common stock, the restated certificate of incorporation of Targacept effecting the proposed reverse stock split and the amendment to the restated certificate of incorporation of Targacept effecting the name change from "Targacept, Inc." to "Catalyst Biosciences, Inc." The merger will become effective upon the filing of a certificate of merger with the Secretary of State of the State of Delaware or at such later time as is agreed by Targacept and Catalyst and specified in the certificate of merger. Neither Targacept nor Catalyst can predict the exact timing of the completion of the merger.

Regulatory Approvals

Targacept must comply with applicable federal and state securities laws and the rules and regulations of The NASDAQ Global Select Market in connection with the issuance of shares of Targacept common stock and the filing of this proxy statement/prospectus/information statement with the SEC.

Tax Treatment of the Merger

Targacept and Catalyst intend the merger to qualify as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code of 1986, as amended, or the Code. Each of Targacept and Catalyst will use its commercially reasonable efforts to cause the merger to qualify as a reorganization within the meaning of

Section 368(a) of the Code, and not to permit or cause any affiliate or any subsidiary of Targacept or Catalyst to, take any action or cause any action to be taken which would cause the merger to fail to qualify as a reorganization under Section 368(a) of the Code.

Material U.S. Federal Income Tax Consequences of the Merger to Holders of Catalyst Common Stock

The following is a discussion of the material U.S. federal income tax consequences of the merger applicable to U.S. Holders (as defined below) who exchange their Catalyst common stock for Targacept common stock in the merger, but does not purport to be a complete analysis of all potential tax effects. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local, or foreign tax laws are not discussed. This discussion is based on the Internal Revenue Code of 1986, as amended, or the Code, U.S. Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the Internal Revenue Service, or the IRS, in effect as of the date of this proxy statement/prospectus/information statement. These authorities may change or be subject to differing interpretations. Any such change may be applied retroactively in a manner that could adversely affect a holder of Catalyst common stock.

This discussion is limited to U.S. Holders who hold their Catalyst common stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all U.S. federal income tax consequences relevant to the particular circumstances of a Catalyst common stockholder, including the impact of the Medicare contribution tax on net investment income. In addition, it does not address consequences relevant to holders of Catalyst common stock that are subject to particular rules, including, without limitation:

- persons subject to the alternative minimum tax;
- persons whose functional currency is not the U.S. dollar;
- persons holding Catalyst common stock as part of a hedge, straddle, or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- persons who are not U.S. Holders;
- banks, insurance companies, and other financial institutions;
- real estate investment trusts or regulated investment companies;
- brokers, dealers, or traders in securities;
- partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and investors therein);
- tax-exempt organizations or governmental organizations;
- persons deemed to sell Catalyst common stock under the constructive sale provisions of the Code;
- persons who hold or receive Catalyst common stock pursuant to the exercise of any employee stock options or otherwise as compensation;
- persons holding Catalyst common stock who exercise dissenters' rights; and
- tax-qualified retirement plans.

Except where specified, this discussion is limited to holders of Catalyst common stock that are U.S. Holders. For purposes of this discussion, a "U.S. Holder" is a beneficial owner of Catalyst common stock that, for U.S. federal income tax purposes, is or is treated as:

- an individual who is a citizen or resident of the United States;
- a corporation created or organized under the laws of the United States, any state thereof, or the District of Columbia;

- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust if either a court within the United States is able to exercise primary supervision over the administration of such trust and one or more United States persons (within the meaning of Section 7701(a)(30) of the Code) have the authority to control all substantial decisions of such trust, or the trust has a valid election in effect under applicable Treasury Regulations to be treated as a United States person for U.S. federal income tax purposes.

If an entity treated as a partnership for U.S. federal income tax purposes holds Catalyst common stock, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships holding Catalyst common stock and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

In addition, the following discussion does not address the tax consequences of the merger under state, local and foreign tax laws. Furthermore, the following discussion does not address any tax consequences of transactions effectuated before, after or at the same time as the merger, whether or not they are in connection with the merger, including, without limitation, transactions in which Catalyst common stock is acquired or Catalyst preferred stock is converted to Catalyst common stock.

STOCKHOLDERS AND INVESTORS SHOULD CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE MERGER ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.

In connection with the merger, Morrison & Foerster LLP has rendered a tax opinion regarding tax consequences of the merger. Such opinion is subject to customary exceptions, assumptions and qualifications, and is based on representations made by Targacept and Catalyst regarding factual matters (including those contained in tax representation letters provided by Targacept and Catalyst). If any representation is inaccurate in any way, or any covenant is not complied with, the tax consequences of the merger could differ from those described in this discussion. This tax opinion represents the legal judgment of counsel rendering the opinion and is not binding on the IRS or the courts. No ruling from the IRS has been or will be requested in connection with the merger, and there can be no assurance that the IRS would not assert, or that a court would not sustain, a position contrary to the conclusions set forth in the tax opinion.

As noted and subject to the qualifications above, in the opinion of Morrison & Foerster LLP, the merger will qualify as a reorganization within the meaning of Section 368(a) of the Code. As a reorganization within the meaning of Section 368(a) of the Code, and subject to the qualifications and assumptions described in this proxy statement/prospectus/information statement, the material U.S. federal income tax consequences of the merger will be as follows:

- a U.S. Holder will not recognize gain or loss upon the exchange of Catalyst common stock for Targacept common stock pursuant to the merger, except to the extent of cash received in lieu of a fractional share of Targacept common stock as described below;
- a U.S. Holder who receives cash in lieu of a fractional share of Targacept common stock in the merger will generally recognize capital gain or loss in an amount equal to the difference between the amount of cash received instead of a fractional share and the stockholder’s tax basis allocable to such fractional share;
- a U.S. Holder’s aggregate tax basis for the shares of Targacept common stock received in the merger (including any fractional share interest for which cash is received) will equal the stockholder’s aggregate tax basis in the shares of Catalyst common stock surrendered upon completion of the merger; and
- the holding period of the shares of Targacept common stock received by a U.S. Holder in the merger will include the holding period of the shares of Catalyst common stock surrendered in exchange therefor.

Capital gains or losses recognized in the merger as described above generally will constitute long-term capital gain or loss if the U.S. Holder's holding period in the Catalyst common stock surrendered in the merger is more than one year as of the effective date of the merger. The deductibility of capital losses is subject to limitations. In addition, for purposes of the above discussion of the bases and holding periods for shares of Catalyst common stock and Targacept common stock, stockholders who acquired different blocks of Catalyst common stock at different times for different prices must calculate their gains and losses and holding periods separately for each identifiable block of such stock exchanged in the merger.

U.S. Holders who owned at least five percent (by vote or value) of the total outstanding stock of Catalyst or Catalyst stock with a tax basis of $1,000,000 or more are required to attach a statement to their tax returns for the year in which the merger is completed that contains the information listed in Treasury Regulation Section 1.368-3(b). Such statement must include the stockholder's tax basis in the stockholder's Catalyst common stock and the fair market value of such stock.

Certain U.S. Holders may be subject to backup withholding on cash received pursuant to the merger. Backup withholding will not apply, however, to a U.S. Holder who timely furnishes a correct taxpayer identification number and certifies that the U.S. Holder is not subject to backup withholding on IRS Form W-9 or is otherwise exempt from backup withholding and establishes such exemption. Amounts withheld, if any, are generally not an additional tax and may be refunded or credited against the U.S. Holder's federal income tax liability, provided that the Targacept stockholder timely furnishes the required information to the IRS.

THE PRECEDING DISCUSSION DOES NOT PURPORT TO BE A COMPLETE ANALYSIS OR DISCUSSION OF ALL OF THE MERGER'S POTENTIAL TAX EFFECTS. U.S. HOLDERS OF CATALYST STOCK SHOULD CONSULT THEIR TAX ADVISORS AS TO THE SPECIFIC TAX CONSEQUENCES TO THEM OF THE MERGER, INCLUDING TAX RETURN REPORTING REQUIREMENTS, AND THE APPLICABILITY AND EFFECT OF FEDERAL, STATE, LOCAL AND OTHER APPLICABLE TAX LAWS.

Material U.S. Federal Income Tax Consequences of the Pre-Closing Dividend to Holders of Targacept Common Stock

The following is a discussion of the material U.S. federal income tax consequences of the Pre-Closing Dividend to holders of Targacept common stock, but does not purport to be a complete analysis of all potential tax effects. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local, or foreign tax laws are not discussed. This discussion is based on the Code, U.S. Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the IRS in effect as of the date of the merger. These authorities may change or be subject to differing interpretations. Any such change may be applied retroactively in a manner that could adversely affect a holder of Targacept common stock.

This discussion is limited to holders who hold their Targacept common stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all U.S. federal income tax consequences relevant to the particular circumstances of a Targacept common stockholder, including the impact of the Medicare contribution tax on net investment income. In addition, it does not address consequences relevant to holders of Targacept common stock that are subject to particular rules, including, without limitation:

- persons subject to the alternative minimum tax;
- persons whose functional currency is not the U.S. dollar;
- persons holding Targacept common stock as part of a hedge, straddle, or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- persons who are not U.S. Holders;

- banks, insurance companies, and other financial institutions;
- real estate investment trusts or regulated investment companies;
- brokers, dealers, or traders in securities;
- partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and investors therein);
- tax-exempt organizations or governmental organizations;
- persons deemed to sell Targacept common stock under the constructive sale provisions of the Code;
- persons who hold or receive Targacept common stock pursuant to the exercise of any employee stock options or otherwise as compensation; and
- tax-qualified retirement plans.

Except where specified, this discussion is limited to holders of Targacept common stock that are U.S. Holders. For purposes of this discussion, a "U.S. Holder" is a beneficial owner of Targacept common stock that, for U.S. federal income tax purposes, is or is treated as:

- an individual who is a citizen or resident of the United States;
- a corporation created or organized under the laws of the United States, any state thereof, or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust if either a court within the United States is able to exercise primary supervision over the administration of such trust and one or more United States persons (within the meaning of Section 7701(a)(30) of the Code) have the authority to control all substantial decisions of such trust, or the trust has a valid election in effect under applicable Treasury Regulations to be treated as a United States person for U.S. federal income tax purposes.

If an entity treated as a partnership for U.S. federal income tax purposes holds Targacept common stock, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships holding Targacept common stock and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

In addition, the following discussion does not address the tax consequences of the Pre-Closing Dividend under state, local and foreign tax laws. Furthermore, the following discussion does not address any tax consequences of transactions effectuated before, after or at the same time as the Pre-Closing Dividend whether or not they are in connection with the Pre-Closing Dividend.

INVESTORS SHOULD CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE PRE-CLOSING DIVIDEND ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.

This discussion, under "Material U.S. Federal Income Tax Consequences of the Pre-Closing Dividend to Holders of Targacept Common Stock," constitutes the opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. as to the material U.S. federal income tax consequences of the Pre-Closing Dividend to U.S. Holders of Targacept common stock, subject to the limitations, exceptions, assumptions, qualifications and beliefs described in this proxy statement/prospectus/information statement.

Treatment of the Pre-Closing Dividend and the Reverse Stock Split as Separate Transactions

If both the Pre-Closing Dividend and the reverse stock split occur, whether the Pre-Closing Dividend and the reverse stock split will be considered separate transactions or a single integrated transaction for U.S. federal income tax purposes is unclear.

If the Pre-Closing Dividend and the reverse stock split constitute separate transactions for U.S. federal income tax purposes, the tax consequences to U.S. Holders of Targacept common stock of each of the Pre-Closing Dividend and the reverse stock split should generally be as described below under "Tax Consequences of the Pre-Closing Dividend" and "Matters Being Submitted To a Vote of Targacept Stockholders—Targacept Proposal No. 2: Approval of the Amendment to the Certificate of Incorporation of Targacept to Effect the Reverse Stock Split—Material U.S. Federal Income Tax Consequences of the Reverse Stock Split" beginning on page 180.

Alternatively, the Pre-Closing Dividend and the reverse stock split may be considered an integrated transaction constituting a single "recapitalization" for U.S. federal income tax purposes. In such event, gain should be recognized by a U.S. Holder of Targacept common stock in connection with the Pre-Closing Dividend and the reverse stock split to the extent of the "boot" (that is, cash or property other than Targacept common stock) received in such recapitalization. See the discussion below under "Treatment of the Pre-Closing Dividend and the Reverse Stock Split as a Single Recapitalization."

Targacept intends to take the position that the Pre-Closing Dividend and the reverse stock split constitute separate transactions. The IRS could challenge this position, however.

We urge you to consult your tax advisor with respect to whether the Pre-Closing Dividend and the reverse stock split constitute separate transactions or a single integrated transaction that is a recapitalization.

Tax Consequences of the Pre-Closing Dividend

The Pre-Closing Dividend is expected to constitute a taxable distribution pursuant to which a U.S. Holder of Targacept common stock would be treated as receiving a distribution equal to the sum of (1) the fair market value (on the Pre-Closing Dividend Date) of the Redeemable Convertible Notes and (2) the Pre-Closing Cash Dividend. The amount of this distribution generally would be treated first as a taxable dividend to the extent of the U.S. Holder's pro rata share of Targacept's current and accumulated earnings and profits (as determined for U.S. federal income tax purposes), then as a non-taxable return of capital to the extent of the U.S. Holder's basis in its Targacept common stock, and finally as capital gain from the sale or exchange of Targacept common stock. A U.S. Holder's tax basis in the Redeemable Convertible Notes would equal the fair market value of the Redeemable Convertible Notes on the Pre-Closing Dividend Date and the holding period of the Redeemable Convertible Notes would begin on the day following the Pre-Closing Dividend Date.

Targacept expects that it will not have current or accumulated earnings and profits for its current taxable year (which will end in connection with the merger), but it is possible that, contrary to expectations, Targacept will have current earnings and profits for its current taxable year. Targacept will not be able to make this determination until after the Pre-Closing Dividend Date. Once the determination is made, Targacept will post its determination regarding its earnings and profits for U.S. federal income tax purposes on its website or otherwise inform its shareholders of such determination.

Tax consequences relating to treatment as a dividend for U.S. federal income tax purposes.

Dividends received by individual U.S. Holders of Targacept common stock generally should qualify for reduced tax rates so long as certain holding period requirements are met. Dividends received by corporate holders may be eligible for the dividends received deduction if the U.S. Holder of Targacept common stock is an otherwise qualifying corporate holder that meets the holding period and certain other requirements for the dividends received deduction. A dividend may be considered an "extraordinary dividend" under the U.S. federal income tax

rules depending on the facts and circumstances of the U.S. Holder of Targacept common stock. Treatment of a dividend as an extraordinary dividend may affect a corporate shareholder's basis in its Targacept common stock, or, with respect to individual shareholders, may affect the tax characterization of a sale of his or her shares of Targacept common stock.

Treatment of the Pre-Closing Dividend and the Reverse Stock Split as a Single Recapitalization

Notwithstanding Targacept's position that the Pre-Closing Dividend and the reverse stock split are separate transactions, it is possible that the IRS or a court could determine that the Pre-Closing Dividend and the reverse stock split constitute a single "recapitalization" for U.S. federal income tax purposes. In such case, the tax consequences of the Pre-Closing Dividend and the reverse stock split would differ from those described.

If the Pre-Closing Dividend and the reverse stock split, taken together, were to constitute a "recapitalization," gain (but not loss) should be recognized by a U.S. Holder of Targacept common stock in an amount equal to the lesser of (i) the excess (if any) of (A) the sum of (1) the fair market value (on the Pre-Closing Dividend Date) of the Redeemable Convertible Notes, (2) the Pre-Closing Cash Dividend, and (3) the fair market value of Targacept shares received in the reverse stock split (treating fractional shares as received for this purpose) over (B) the U.S. Holder's adjusted tax basis in the Targacept common stock surrendered in the reverse stock split, and (ii) the sum of (1) the fair market value (on the Pre-Closing Dividend Date) of the Redeemable Convertible Notes, and (2) the Pre-Closing Cash Dividend,. A U.S. Holder of Targacept common stock that receives cash in lieu of a fractional share of Targacept common stock pursuant to the reverse stock split should recognize capital gain or loss in an amount equal to the difference between the amount of cash received and the U.S. Holder's tax basis in the shares of Targacept common stock surrendered that is allocated to such fractional share of Targacept common stock. Such capital gain or loss should be long-term capital gain or loss if the U.S. Holder's holding period for Targacept common stock surrendered exceeded one year at the effective time of the reverse stock split.

A U.S. Holder should have an aggregate tax basis in the Targacept common stock received in the reverse stock split equal to the aggregate tax basis of Targacept common stock surrendered in the reverse stock split, decreased by the sum of (1) the fair market value (on the Pre-Closing Dividend Date) of the Redeemable Convertible Notes, and (2) the Pre-Closing Cash Dividend, and increased by the aggregate amount of gain (if any) recognized (other than gain realized as a result of cash received in lieu of fractional shares). A U.S. Holder's holding period for the Targacept common stock received in the reverse stock split would include the U.S. Holder's holding period for the Targacept common stock surrendered in the reverse stock split. Any gain would be capital gain, and would be long-term capital gain if the U.S. Holder has held its Targacept common stock for more than one year at the time of the reverse stock split. Otherwise, such gain would be short-term capital gain. Long-term capital gains recognized by certain non-corporate U.S. Holders, including individuals, are taxable at a reduced rate. As stated above, a U.S. Holder's tax basis in the Redeemable Convertible Notes would equal their respective fair market values on the Pre-Closing Dividend Date, and the holding period would begin on the day following the Pre-Closing Dividend Date.

A U.S. Holder should have an aggregate tax basis in the Targacept common stock received in the reverse stock split equal to the aggregate tax basis of Targacept common stock surrendered in the reverse stock split, decreased by the sum of (1) the fair market value (on the Pre-Closing Dividend Date) of the Redeemable Convertible Notes and (2) the Pre-Closing Cash Dividend, and increased by the aggregate amount of gain (if any) recognized (other than gain realized as a result of cash received in lieu of fractional shares). A U.S. Holder's holding period for the Targacept common stock received in the reverse stock split would include the U.S. Holder's holding period for the Targacept common stock surrendered in the reverse stock split. Any gain would be capital gain, and would be long-term capital gain if the U.S. Holder has held its Targacept common stock for more than one year at the time of the reverse stock split. Otherwise, such gain would be short-term capital gain. Long-term capital gains recognized by certain non-corporate U.S. Holders, including individuals, are taxable at a reduced rate. As stated above, a U.S. Holder's tax basis in the Redeemable Convertible Notes would equal their respective fair market values on the Pre-Closing Dividend Date, and the holding period would begin on the day following the Pre-Closing Dividend Date.

Due to the legal and factual uncertainty regarding the valuation and tax treatment of the Pre-Closing Dividend, and the possible integration of the Pre-Closing Dividend and the reverse stock split, U.S. Holders of Targacept common stock are urged to consult their tax advisors concerning the recognition of gain, income and/or loss in connection with the Pre-Closing Dividend and the reverse stock split.

Material U.S. Federal Income Tax Consequences for Non-U.S. Holders of Targacept Common Stock

The discussion below applies to beneficial owners of Targacept common stock that are not U.S. Holders or entities treated as partnerships for U.S. federal income tax purposes (such beneficial owners, "Non-U.S. Holders").

As discussed above under "Treatment of the Pre-Closing Dividend and the reverse stock split as Separate Transactions," Targacept intends to take the position that the Pre-Closing Dividend and the reverse stock split are separate transactions for U.S. federal income tax purposes. Assuming such position is correct, Targacept would be treated as having made a distribution to such Non-U.S. Holder equal to the sum of (1) the fair market value (on the Pre-Closing Dividend Date) of the Redeemable Convertible Notes and (2) the Pre-Closing Cash Dividend. This distribution would be treated as a dividend generally subject to withholding (as described further below) to the extent of Targacept's current or accumulated earnings and profits (as calculated under U.S. federal income tax principles) on the Pre-Closing Dividend Date, then as return of capital to the extent of basis and capital gain thereafter. Although Targacept does not expect to have current or accumulated earnings and profits for the tax year including the Pre-Closing Dividend Date, it is possible that Targacept will have current earnings and profits for such tax year, in which case Targacept will withhold tax as described further below.

Non-U.S. Holders would be subject to U.S. federal withholding tax at a rate of 30% (or such lower rate as may be specified by an applicable income tax treaty) on any dividends. Even if a Non-U.S. Holder is eligible for a lower treaty rate, dividend payments would generally be subject to withholding at a 30% rate (rather than the lower treaty rate) unless the Non-U.S. Holder provides a valid IRS Form W-8BEN, W-8BEN-E or other applicable Form W-8 (or applicable successor form) certifying such holder's qualification for the reduced rate. If a Non-U.S. Holder holds its Targacept common stock through a financial institution or other intermediary, the Non-U.S. Holder will be required to provide appropriate documentation to the intermediary, which then will be required to provide certification to the applicable withholding agent, either directly or through other intermediaries. Non-U.S. Holders who do not timely provide the applicable withholding agent with the required certification, but who qualify for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

Non-U.S. Holders may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

If the dividend (or other income otherwise subject to withholding) is effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the Non-U.S. Holder maintains a permanent establishment in the United States to which such dividends or other income are attributable), the Non-U.S. Holder will be exempt from U.S. federal withholding tax. To claim the exemption, the Non-U.S. Holder must furnish to the applicable withholding agent a valid IRS Form W-8ECI (or applicable successor form), certifying that the dividends (or other income) are effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States. If the dividend (or other income) received by a Non-U.S. Holder is effectively connected with the Non-U.S. Holder's U.S. trade or business (and, if required by an applicable income tax treaty, attributable to a permanent establishment maintained by the Non-U.S. Holder in the United States), the dividend (or other income) generally will be subject to U.S. federal income tax on a net income basis in the same manner as if such holder were a U.S. Holder. A Non-U.S. Holder that is a corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on a portion of its effectively connected earnings and profits for the taxable year.

To the extent the Pre-Closing Dividend is treated as return of capital, gain recognized by a Non-U.S. Holder of Targacept common stock generally would be exempt from U.S. federal income tax unless:

- the gain is effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the Non-U.S. Holder maintains a permanent establishment in the United States to which such gain is attributable);
- the Non-U.S. Holder is an individual who is present in the United States for 183 or more days in the taxable year of the merger and certain other conditions exist; or
- Targacept is or has been a U.S. real property holding corporation for U.S. federal income tax purposes, the Non-U.S. Holder held, actually or constructively, at any time during the five-year period ending on the date of the merger, more than 5 percent of Targacept's common stock, and such Non-U.S. Holder is not eligible for any treaty exemption.

Gain described in the first bullet point above will generally be subject to U.S. federal income tax on a net income basis at the regular graduated U.S. federal income tax rates applicable to a U.S. Holder. A Non-U.S. Holder that is a corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected gain, as adjusted for certain items.

Gain described in the second bullet point above will be subject to U.S. federal income tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty), which may be offset by certain U.S. source capital losses of the Non-U.S. Holder (even though the individual is not considered a resident of the United States), provided the Non-U.S. Holder has timely filed U.S. federal income tax returns with respect to such losses.

Targacept believes it is not and has not been, and does not anticipate becoming prior to the Pre-Closing Dividend Date, a U.S. real property holding corporation for U.S. federal income tax purposes.

If withholding applies or is applied to the Pre-Closing Dividend, the Non-U.S. Holder's broker (or other applicable withholding agent) will be required to remit any withholding in cash to the IRS. Depending on the circumstances, the broker (or other applicable withholding agent) may obtain the funds necessary to remit any withholding with respect to the distribution of the Redeemable Convertible Notes, asking the Non-U.S. Holder to provide the funds or by using funds in the Non-U.S. Holder's account with the broker.

As discussed above, the tax treatment of the Pre-Closing Dividend and the reverse stock split is unclear and withholding may apply to the Pre-Closing Dividend. Non-U.S. Holders of Targacept common stock are urged to consult their tax advisors.

Information Reporting and Backup Withholding

A U.S. Holder of Targacept common stock may be subject to information reporting and backup withholding both on any cash paid (including any cash paid in lieu of fractional shares in connection with the reverse stock split) and on the other components of the Pre-Closing Dividend. A U.S. Holder of Targacept common stock will be subject to backup withholding if such holder is not otherwise exempt and such holder does not provide its taxpayer identification number in the manner required or otherwise fails to comply with applicable backup withholding tax rules.

A Non-U.S. Holder will not be subject to backup withholding (as discussed above) if the Non-U.S. Holder certifies its exempt status by providing a properly executed IRS Form W-8BEN or Form W-8BEN-E (or other applicable Form W-8). However, information returns are required to be filed with the IRS in connection with any dividends or interest paid to the Non-U.S. Holder, regardless of whether any tax was actually withheld. Copies of information returns that are filed with the IRS may also be made available under the provisions of an applicable treaty or agreement to the tax authorities of the country in which the Non-U.S. Holder resides or is established.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be refunded or allowed as a credit against the Targacept stockholder's federal income tax liability, if any, provided the required information is timely furnished to the IRS. Targacept stockholders should consult their tax advisors regarding their qualification for an exemption from backup withholding and the procedures for obtaining such an exemption.

FATCA Withholding

Withholding taxes may be imposed under Sections 1471 to 1474 of the Code (such Sections commonly referred to as the Foreign Account Tax Compliance Act, or FATCA, on certain types of payments made to non-U.S. financial institutions and certain other non-U.S. entities. Specifically, a 30% withholding tax will be imposed on payments of interest, dividends, and other fixed or determinable annual or periodical gains, profits and income made after June 30, 2014 and payments of gross proceeds from the sale, exchange or other disposition of shares, debt instruments or other property of a type which can produce U.S.-source interest or dividends made after December 31, 2016 to a "foreign financial institution" or a "non-financial foreign entity" (each as defined in the Code), unless (1) the foreign financial institution undertakes certain diligence and reporting obligations, (2) the non-financial foreign entity either certifies it does not have any "substantial United States owners" (as defined in the Code) or furnishes identifying information regarding each substantial United States owner, or (3) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. If the payee is a foreign financial institution and is subject to the diligence and reporting requirements in (1) above, it must enter into an agreement with the U.S. Department of the Treasury requiring, among other things, that it undertake to identify accounts held by certain "specified United States persons" or "United States-owned foreign entities" (each as defined in the Code), annually report certain information about such accounts, and withhold 30% on certain payments to non-compliant foreign financial institutions and certain other account holders. Foreign financial institutions located in jurisdictions that have an intergovernmental agreement with the United States governing FATCA may be subject to different rules. Under the applicable Treasury Regulations, withholding under FATCA generally applies to payments of dividends and as such, may apply to the Pre-Closing Dividend. Non-U.S. Holders should consult their tax advisors regarding the potential application of withholding under FATCA.

Material U.S. Federal Income Tax Consequences of the Ownership of the Redeemable Convertible Notes

The following is a discussion of the material U.S. federal income tax consequences of the ownership and disposition of the redeemable convertible notes, or the "notes," to holders of Targacept common stock who receive such notes as part of the pre-closing dividend, but does not purport to be a complete analysis of all potential tax effects. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local, or foreign tax laws are not discussed. This discussion is based on the Code, U.S. Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the IRS in effect as of the date of the merger. These authorities may change or be subject to differing interpretations. Any such change may be applied retroactively in a manner that could adversely affect a holder of Targacept common stock.

This discussion is limited to holders who hold their notes as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all U.S. federal income tax consequences relevant to the particular circumstances of a holder of notes, including the impact of the Medicare contribution tax on net investment income. In addition, it does not address consequences relevant to holders of notes that are subject to particular rules, including, without limitation:

- persons subject to the alternative minimum tax;
- persons whose functional currency is not the U.S. dollar;
- persons holding notes as part of a hedge, straddle, or other risk reduction strategy or as part of a conversion transaction or other integrated investment;

- persons who are not U.S. Holders;
- banks, insurance companies, and other financial institutions;
- real estate investment trusts or regulated investment companies;
- brokers, dealers, or traders in securities;
- partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and investors therein);
- tax-exempt organizations or governmental organizations;
- persons deemed to sell notes under the constructive sale provisions of the Code;
- persons who hold or receive notes pursuant to the exercise of any employee stock options or otherwise as compensation; and
- tax-qualified retirement plans.

Except where specified, this discussion is limited to holders of notes that are U.S. Holders. For purposes of this discussion, a "U.S. Holder" is a beneficial owner of a note that, for U.S. federal income tax purposes, is or is treated as:

- an individual who is a citizen or resident of the United States;
- a corporation created or organized under the laws of the United States, any state thereof, or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust if either a court within the United States is able to exercise primary supervision over the administration of such trust and one or more United States persons (within the meaning of Section 7701(a)(30) of the Code) have the authority to control all substantial decisions of such trust, or the trust has a valid election in effect under applicable Treasury Regulations to be treated as a United States person for U.S. federal income tax purposes.

If an entity treated as a partnership for U.S. federal income tax purposes holds notes, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships holding notes and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

In addition, the following discussion does not address the tax consequences of the ownership and disposition of notes under state, local and foreign tax laws. Furthermore, the following discussion does not address any tax consequences of transactions effectuated before, after or at the same time as the Pre-Closing Dividend whether or not they are in connection with the Pre-Closing Dividend.

INVESTORS SHOULD CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE PRE-CLOSING DIVIDEND ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.

This discussion, under "Material U.S. Federal Income Tax Consequences of the Ownership of the Redeemable Convertible Notes," constitutes the opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. as to the material U.S. federal income tax consequences of ownership of the Redeemable Convertible Notes, subject to the limitations, exceptions, assumptions, qualifications and beliefs described herein.

Issue Price of the Notes

Generally, for U.S. federal income tax purposes, debt instruments are treated as issued with "original issue discount," or OID, in an amount equal to the difference between their "stated redemption price at maturity" (the sum of all payments to be made on the Notes other than "qualified stated interest") and their "issue price."

Because the notes are being issued as a distribution with respect to Targacept stock, they are subject to special rules under the Treasury Regulations governing the determination of OID. Under these rules, the determination of the "issue price" of the notes depends on whether the notes are "publicly traded" for U.S. federal income tax purposes. In general, a debt instrument constitutes a publicly traded debt instrument for U.S. federal income tax purposes if certain pricing or quotation information is available with respect to such debt instrument. However, the rules also provide that for these purposes, a debt instrument will not be treated as publicly traded if the stated principal amount of the debt issuance does not exceed $100 million. Accordingly, the notes will not be "publicly traded" for U.S. federal income tax purposes.

Since the notes are not "publicly traded" for purposes of the OID rules, their issue price will be equal to their "stated redemption price at maturity" (and hence will not have OID) unless the notes are deemed not to pay "adequate stated interest." In that event, the issue price of the notes would be equal to their "imputed principal amount," which is the sum of the present values of all payments due under the notes, using a discount rate equal to a statutory "applicable federal rate."

We intend to take the position that since the notes do not pay cash interest, they do not pay "adequate stated interest," and that their issue price will therefore be equal to their "imputed principal amount." We intend to determine the issue price of the notes and to report the resulting OID on the notes accordingly to U.S. Holders. We also intend to take the position that the fair market value of the notes (which determines a holder's tax basis in the notes as well as the amount of the distribution reported to holders, as described above) is equal to the imputed principal amount of the notes. If this is not the case, then holders could also be subject to either the "market discount" or "acquisition premium" rules of the Code. The determination described above is not free from doubt. U.S. Holders of notes are urged to consult their tax advisors concerning the application of the OID rules to the notes, as well as the potential applicability of the market discount and acquisition premium rules. The remainder of this discussion assumes that the notes will be treated as having OID as described above.

Original Issue Discount

A U.S. Holder must generally include OID in gross income as it accrues over the term of the notes without regard to such holder's regular method of accounting for U.S. federal income tax purposes. The amount of OID that must be included in income will generally equal the sum of the "daily portions" of OID with respect to the note for each day during the taxable year or portion of the taxable year in which the holder held such note ("accrued OID"). The daily portion is determined by allocating to each day in any "accrual period" a pro rata portion of the OID allocable to that accrual period. The "accrual period" for a note may be of any length and may vary in length over the term of the note, provided that each accrual period is no longer than one year and each scheduled payment of principal or interest occurs on the first day or the final day of an accrual period. The amount of OID allocable to any accrual period other than the final accrual period is an amount equal to the product of the note's adjusted issue price at the beginning of such accrual period (as described below) and its yield to maturity (determined on the basis of compounding at the close of each accrual period and properly adjusted for the length of the accrual period). OID allocable to a final accrual period is the difference between the amount payable at maturity and the adjusted issue price at the beginning of the final accrual period.

The "yield to maturity" of a note is the discount rate that causes the present value of all payments on the note as of its original issue date to equal the issue price of such note. In the case of a note, that rate will be equal to the rate used to determine the "imputed principal amount" as described above. The "adjusted issue price" of a Note at the beginning of any accrual period is equal to its issue price increased by the accrued OID for each prior accrual period and reduced by any cash payments previously made on such Note. Under these rules, you generally will have to include in income increasingly greater amounts of OID in successive accrual periods.

The rules regarding OID, especially as they apply to the notes, are complex and the rules described above may not apply in all cases. Accordingly, U.S. Holders of notes should consult their own tax advisors regarding their application.

Sale, Exchange, Retirement or Other Taxable Disposition of Notes

Except as provided below under "Conversion of notes" a U.S. Holder will generally recognize gain or loss upon the sale, exchange, redemption or other taxable disposition of a note equal to the difference between the amount realized upon the sale, exchange, redemption or other taxable disposition and such U.S. Holder's adjusted tax basis in the note. As described above, a U.S. Holder's adjusted tax basis in a note will generally be equal to the fair market value of the note as of the date of the pre closing dividend, increased by OID previously included in income. Any gain or loss recognized on a taxable disposition of the note will be capital gain or loss. If, at the time of the sale, exchange, redemption or other taxable disposition of the note, a U.S. holder held the note for more than one year, such U.S. Holder's gain or loss will be a long-term capital gain or loss. Otherwise, such gain or loss will be a short-term capital gain or loss. In the case of certain non-corporate U.S. Holders (including individuals), long-term capital gain generally will be subject to a reduced rate of U.S. federal income tax. A U.S. Holder's ability to deduct capital losses may be limited.

Consolidations and Mergers

In certain situations, Targacept may consolidate with or merge into another entity as described under "Description of the Convertible Notes—Recapitalizations, Reclassifications and Changes to Targacept's Common Stock" beginning on page 300. Depending on the circumstances, a change in the obligor of the notes as the result of a consolidation or merger could result in a deemed taxable exchange to a U.S. Holder, and the modified note could be treated as newly issued at that time, potentially resulting in the recognition of taxable gain or loss by a U.S. Holder. In addition, the tax consequences to a U.S. Holder on a conversion of the notes may be materially different than as described herein if the notes become convertible into stock, securities or other property (including stock or securities of a different issuer) other than Targacept common stock. U.S. Holders should consult their own tax advisors regarding the consequences to them of a consolidation or merger.

Conversion of Notes

The conversion of a note into Targacept common stock should generally be treated as a recapitalization for U.S. federal income tax purposes. Accordingly, a U.S. Holder generally will not recognize any income, gain or loss upon conversion of a note. The tax basis of the shares of common stock received upon such a conversion would equal the tax basis of the note that was converted.

Constructive Distributions

The conversion rate of the notes will be adjusted in specified circumstances, as described under the heading "Description of the Convertible Notes—Conversion of Notes—Conversion Rate Adjustments" beginning on page 295. Under the Code and applicable Treasury regulations, adjustments (or failures to make adjustments) that have the effect of increasing a U.S. Holder's proportionate interest in our assets or earnings may in some circumstances result in a deemed distribution to a U.S. Holder for U.S. federal income tax purposes. Adjustments to the conversion rate made pursuant to a bona fide reasonable adjustment formula that has the effect of preventing the dilution of the interest of the holders of the notes, however, will generally not be considered to result in a deemed distribution to a U.S. Holder. Some of the possible conversion rate adjustments provided in the notes (including, without limitation, adjustments in respect of taxable dividends to holders of our common stock will generally not qualify as being pursuant to a bona fide reasonable adjustment formula. If such adjustments are made, a U.S. Holder will be deemed to have received a distribution even though the U.S. Holder has not received any cash or property as a result of such adjustments. Any deemed distributions will be taxable as a dividend, return of capital, or capital gain as described generally in "Material U.S. Federal Income Tax

Consequences of the Pre-Closing Dividend to Holders of Targacept Common Stock—Tax Consequences of the Pre-Closing Dividend" beginning on page 101. U.S. Holders should consult their tax advisors as to whether such deemed distributions are eligible for the preferential rates of U.S. federal income tax applicable in respect of dividends received or the dividends received deduction. Because a constructive dividend deemed received by a U.S. Holder would not give rise to any cash from which any applicable withholding could be satisfied, if Targacept pays backup withholding as described in "—Information Reporting and Backup Withholding" below, on behalf of a U.S. Holder (because such U.S. Holder failed to establish an exemption from backup withholding), Targacept may, at its option, set off any such payment against payments of cash and common stock payable on the notes (or, in some circumstances, against any payments on the common stock).

Information Reporting and Backup Withholding

Information reporting requirements generally will apply to certain payments of principal (including OID) on the notes and to the proceeds of a sale, exchange or other disposition of a note paid to a U.S. Holder unless the U.S. Holder is an exempt recipient such as a corporation. Backup withholding will apply to those payments if the U.S. Holder fails to provide its correct taxpayer identification number, or certification of exempt status, or if the U.S. Holder is notified by the IRS that it has failed to report in full certain payments. Any amounts withheld under the backup withholding rules will be allowed as a refund or a credit against a U.S. Holder's U.S. federal income tax liability provided the required information is furnished timely to the IRS.

Material U.S. Federal Income Tax Consequences for Non-U.S. Holders of Notes

The discussion below applies to beneficial owners of notes that are not U.S. Holders or entities treated as partnerships for U.S. federal income tax purposes (such beneficial owners, "Non-U.S. Holders").

Constructive Distributions

Any deemed distributions paid to a Non-U.S. Holder resulting from some adjustments, or failure to make adjustments, to the conversion rate, as described under "The Merger—Material U.S. Federal Income Tax Consequences of the Ownership of the Redeemable Convertible Notes—Constructive Distributions" beginning on page 110, that are treated as dividends for U.S. federal income tax purposes will be subject to withholding tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty. However, dividends that are effectively connected with the conduct of a trade or business within the United States and, where a tax treaty applies, are attributable to a U.S. permanent establishment or fixed base, are not subject to the withholding tax, but instead are subject to U.S. federal income tax on a net income basis at applicable graduated individual or corporate rates. Certification requirements and disclosure requirements must be complied with in order for effectively connected income to be exempt from withholding. Any such effectively connected income received by a foreign corporation may, under some circumstances, be subject to an additional branch profits tax at a 30% rate (or such lower rate as may be specified by an applicable income tax treaty). Because a constructive dividend deemed received by a Non-U.S. Holder would not give rise to any cash from which any applicable withholding tax could be satisfied, if Targacept pays withholding taxes on behalf of a Non-U.S. Holder, it may, at its option, set off any such payment against payments of cash and common stock payable on the notes (or, in some circumstances, against any payments on the common stock).

A Non-U.S. Holder who wishes to claim the benefit of an applicable treaty rate is required to satisfy applicable certification and other requirements. If a Non-U.S. Holder is eligible for a reduced rate of U.S. withholding tax pursuant to an income tax treaty, it may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

Payments of OID

The 30% U.S. federal withholding tax will not apply to any payment of OID on the notes under the "portfolio interest rule," provided that:

- OID paid on the notes is not effectively connected with the Non-U.S. Holder's conduct of a trade or business in the United States;
- the Non-U.S. Holder does not actually (or constructively) own 10% or more of the total combined voting power of all classes of our voting stock within the meaning of the Code and applicable United States Treasury Regulations;
- the Non-U.S. Holder is not a controlled foreign corporation that is related to us actually or constructively through stock ownership;
- the Non-U.S. Holder is not a bank whose receipt of OID on the notes is described in Section 881(c)(3)(A) of the Code; and
- either (a) the Non-U.S. Holder provides its name and address on an IRS Form W-8BEN (or other applicable form), and certifies, under penalties of perjury, that it is not a United States person as defined under the Code or (b) the Non-U.S. Holder holds its notes through certain foreign intermediaries and satisfies the certification requirements of applicable United States Treasury regulations. Special certification rules apply to non-U.S. holders that are pass-through entities rather than corporations or individuals.

If the Non-U.S. Holder cannot satisfy the requirements described above, payments of OID will be subject to the 30% U.S. federal withholding tax, unless the Non-U.S. Holder provides us with a properly executed:

- IRS Form W-8BEN (or other applicable form) certifying an exemption from or reduction in withholding under the benefit of an applicable income tax treaty; or
- IRS Form W-8ECI (or other applicable form) certifying OID paid on the Notes is not subject to withholding tax because it is effectively connected with the conduct of a trade or business in the United States (as discussed below under "—U.S. Federal Income Tax").

The 30% U.S. federal withholding tax generally will not apply to any payment of principal or gain realized on the sale, exchange, retirement or other disposition of a note.

Sale, Exchange, Conversion or Other Taxable Disposition of Notes

Gain realized by a Non-U.S. Holder on the sale, exchange, conversion or other taxable disposition of a note generally would be exempt from U.S. federal income tax unless:

- the gain is effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the Non-U.S. Holder maintains a permanent establishment in the United States to which such gain is attributable);
- the Non-U.S. Holder is an individual who is present in the United States for 183 or more days in the taxable year of the merger and certain other conditions exist; or
- Targacept is or has been a U.S. real property holding corporation for U.S. federal income tax purposes, the Non-U.S. Holder held, actually or constructively, at any time during the five-year period ending on the date of the merger, more than 5 percent of Targacept's common stock, and such Non-U.S. Holder is not eligible for any treaty exemption.

Gain described in the first bullet point above will generally be subject to U.S. federal income tax on a net income basis at the regular graduated U.S. federal income tax rates applicable to a U.S. Holder. A Non-U.S. Holder that is a corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected gain, as adjusted for certain items.

Gain described in the second bullet point above will be subject to U.S. federal income tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty), which may be offset by certain U.S. source capital losses of the Non-U.S. Holder (even though the individual is not considered a resident of the United States), provided the Non-U.S. Holder has timely filed U.S. federal income tax returns with respect to such losses.

Targacept believes it is not and has not been, and does not anticipate becoming prior to the Pre-Closing Dividend a U.S. real property holding corporation for U.S. federal income tax purposes.

Information Reporting and Backup Withholding

A Non-U.S. Holder will be subject to information reporting and, depending on the circumstances, backup withholding with respect to payments of OID and the proceeds of the sale of a note within the United States or conducted through specified U.S.-related financial intermediaries, unless the Non-U.S. Holder certifies its exempt status by providing a properly executed IRS Form W-8BEN or Form W-8BEN-E (or other applicable Form W-8) (and Targacept and the relevant financial intermediaries do not have actual knowledge or reason to know that a holder is a U.S. person, as defined under the Code, that is not an exempt recipient) or the Non-U.S. Holder otherwise establishes an exemption.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be refunded or allowed as a credit against the noteholder's federal income tax liability, if any, provided the required information is timely furnished to the IRS. Holders of notes should consult their tax advisors regarding their qualification for an exemption from backup withholding and the procedures for obtaining such an exemption.

FATCA Withholding

Withholding taxes may be imposed under Sections 1471 to 1474 of the Code (such Sections commonly referred to as the Foreign Account Tax Compliance Act, or FATCA, on certain types of payments made to non-U.S. financial institutions and certain other non-U.S. entities. Specifically, a 30% withholding tax will be imposed on payments of interest, dividends, and other fixed or determinable annual or periodical gains, profits and income currently and payments of gross proceeds from the sale, exchange or other disposition of shares, debt instruments or other property of a type which can produce U.S.-source interest or dividends made after December 31, 2016 to a "foreign financial institution" or a "non-financial foreign entity" (each as defined in the Code), unless (1) the foreign financial institution undertakes certain diligence and reporting obligations, (2) the non-financial foreign entity either certifies it does not have any "substantial United States owners" (as defined in the Code) or furnishes identifying information regarding each substantial United States owner, or (3) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. If the payee is a foreign financial institution and is subject to the diligence and reporting requirements in (1) above, it must enter into an agreement with the U.S. Department of the Treasury requiring, among other things, that it undertake to identify accounts held by certain "specified United States persons" or "United States-owned foreign entities" (each as defined in the Code), annually report certain information about such accounts, and withhold 30% on certain payments to non-compliant foreign financial institutions and certain other account holders. Foreign financial institutions located in jurisdictions that have an intergovernmental agreement with the United States governing FATCA may be subject to different rules. Non-U.S. Holders should consult their tax advisors regarding the potential application of withholding under FATCA.

NASDAQ Stock Market Listing

Targacept common stock currently is listed on The NASDAQ Global Select Market under the symbol "TRGT." Targacept has agreed to use commercially reasonable efforts to maintain its existing listing on The NASDAQ Global Select Market, and to obtain approval for listing on The NASDAQ Global Select Market (or such other NASDAQ market on which Targacept's common stock is then listed) of the shares of Targacept common stock that Catalyst stockholders will be entitled to receive pursuant to the merger. In addition, under the Merger

Agreement, each party's obligation to complete the merger is subject to the satisfaction or waiver by each of the parties, at or prior to the merger, of various conditions, including that Targacept must have caused the shares of Targacept common stock to be issued in the merger to be approved for listing on The NASDAQ Global Select Market as of the closing of the merger.

Targacept has filed an initial listing application with The NASDAQ Global Select Market pursuant to NASDAQ "reverse merger" rules. If such application is accepted, Targacept anticipates that its common stock will be listed on The NASDAQ Global Select Market following the closing of the merger under the trading symbol "CBIO."

Anticipated Accounting Treatment

The merger will be treated by Targacept as a reverse merger under the acquisition method of accounting in accordance with accounting principles generally accepted in the United States. For accounting purposes, Catalyst is considered to be acquiring Targacept in this transaction. The transaction will be accounted for under the acquisition method of accounting under existing U.S. generally accepted accounting principles, or GAAP, which are subject to change and interpretation. Under the acquisition method of accounting, management of Targacept and Catalyst have made a preliminary estimated purchase price calculated as described in Note 1 to the unaudited pro forma condensed combined financial statements. The net tangible and intangible assets acquired and liabilities assumed in connection with the transaction are at their estimated acquisition date fair values. The acquisition method of accounting is dependent upon certain valuations and other studies that have yet to commence or progress to a stage where there is sufficient information for a definitive measurement. A final determination of these estimated fair values, which cannot be made prior to the completion of the transaction, will be based on the actual net tangible and intangible assets of Targacept that exist as of the date of completion of the transaction.

Appraisal Rights and Dissenters' Rights

Overview

Under Delaware laws regarding stockholders' appraisal rights and/or dissenters' rights, stockholders of Catalyst who do not provide written consent in favor of the approval of merger and adoption of the Merger Agreement may, under certain conditions, become entitled to be paid cash for the fair value of their stock in lieu of the consideration set forth in the Merger Agreement.

The Merger Agreement provides that shares of capital stock of Catalyst that are outstanding immediately prior to the effective time of the merger and have not been voted in favor of the merger will not be converted into the consideration set forth in the Merger Agreement if the holder of the shares validly exercises and perfects statutory appraisal rights and/or dissenters' rights with respect to the shares, although the shares will be automatically converted into the consideration set forth in the Merger Agreement on the same basis that all other shares of capital stock of Catalyst are converted in the merger when and if the holder of those shares fails to perfect or who effectively have withdrawn or lost his, her or its appraisal rights and/or dissenters' rights.

Holders of Catalyst capital stock considering exercising appraisal and/or dissenters' rights should be aware that the "fair value" of their shares of Catalyst capital stock as so determined by the Delaware Court of Chancery could be more than, the same as or less than the consideration they would receive pursuant to the merger if they did not seek appraisal of their shares of Catalyst capital stock. Catalyst does not anticipate offering more than the merger consideration set forth in the Merger Agreement to any stockholder exercising appraisal rights or dissenters' rights and reserves its right to assert, in any appraisal proceeding or court proceeding, that for purposes of Section 262 of the Delaware Law, the fair value of a share of its capital stock is less than such merger consideration.

The process of exercising appraisal rights and/or dissenters' rights requires strict compliance with technical prerequisites. Stockholders wishing to exercise such rights should consult with their own legal counsel in connection with compliance with Section 262 of the Delaware Law. Any stockholder who fails to comply with the requirements of Section 262 of the Delaware Law, attached as Annex C to this proxy statement/prospectus/information statement, will forfeit its appraisal rights or dissenters' rights and will receive the consideration set forth in the Merger Agreement in exchange for its shares of capital stock of Catalyst.

Under the Merger Agreement, Catalyst is obligated to give Targacept prompt notice of any demands for appraisal received by Catalyst and related communications and the opportunity to direct all negotiations and proceedings with respect to demands for appraisal under the Delaware Law. Catalyst may not, except with the prior written consent of Targacept, make any payments with respect to any demands for appraisal or offer to settle or settle any such demands.

Appraisal Rights under Delaware Law

The following is a summary of the statutory procedures to be followed under Section 262 of the Delaware Law, the full text of which is attached hereto as Annex C to this proxy statement/prospectus/proxy statement/prospectus/information statement and is incorporated herein by reference. The summary does not purport to be a complete statement of, and is qualified in its entirety by reference to, Section 262 of the Delaware Law and to any amendments to such section after the date of this proxy statement/prospectus/information statement. Failure to follow any of the procedures of Section 262 of the Delaware Law may result in termination or waiver of appraisal rights under Section 262 of the Delaware Law. Stockholders of Catalyst should assume that Catalyst will take no action to perfect any appraisal rights of any stockholder. Any stockholder of Catalyst who desires to exercise its appraisal rights should review carefully Section 262 of the Delaware Law and is urged to consult its legal advisor before electing or attempting to exercise such rights.

Only a holder of record of shares of capital stock of Catalyst who has not consented to the merger will be entitled to seek appraisal. The demand for appraisal must be executed by or for the holder of record, fully and correctly, as such holder's name appears on the holder's certificates evidencing shares of capital stock of Catalyst. If the shares are owned of record in a fiduciary capacity, such as by a trustee, guardian or custodian, the demand should be made in that capacity, and if the shares are owned of record by more than one person, as in a joint tenancy or tenancy in common, the demand must be made by or for all owners of record. An authorized agent, including one or more joint owners, may execute the demand for appraisal for a holder of record; however, such agent must identify the record owner or owners and expressly disclose in such demand that the agent is acting as agent for the record owner or owners of such shares. A record holder, such as a broker who holds shares of capital stock of Catalyst as a nominee for beneficial owners, some or all of whom desire to demand appraisal, must exercise rights on behalf of such beneficial owners with respect to the shares held for such beneficial owners. In such case, the written demand for appraisal should set forth the number of shares covered by such demand. Unless a demand for appraisal specifies a number of shares, such demand will be presumed to cover all shares held in the name of such record owner.

Under Sections 228(e) and 262(d)(2) of the Delaware Law, Catalyst is required to mail to each holder of capital stock of Catalyst who has not consented in writing to the adoption and approval of the Merger Agreement and the merger and the transactions contemplated thereby a notice of corporate action taken without a meeting and notice of availability of appraisal rights. The notice of corporate action taken without a meeting, notice of availability of appraisal rights and a copy of Section 262 of the Delaware Law must be delivered to the applicable stockholders of Catalyst by either Catalyst following receipt of the requisite approval of the adoption and approval of the Merger Agreement, the merger and the transactions contemplated thereby, or by Catalyst or the surviving corporation within ten days following the effective date of the merger. Such notice, if given on or after the effective date of the merger, must also notify the stockholders of the effective date of the merger.

Any stockholder entitled to appraisal rights may, on or before 20 days after the date of mailing of the notice of corporate action taken without a meeting and notice of availability of appraisal rights, demand in writing from Catalyst an appraisal of its shares of capital stock of Catalyst. Such demand will be sufficient if it reasonably informs Catalyst of the identity of the stockholder and that the stockholder intends to demand an appraisal of the stockholder's shares. Failure to make such a demand on or before the expiration of such 20-day period will foreclose a stockholder's rights to appraisal. If the notice of corporate action taken without a meeting did not notify the stockholders of the effective date of the merger, either (a) Catalyst must send a second notice before the effective date of the merger notifying each stockholder entitled to appraisal rights of the effective date of the merger or (b) Catalyst or the surviving corporation will send such second notice to each stockholder entitled to appraisal rights on or within ten days after the effective date of the merger, provided, however, that if such second notice is sent more than 20 days following the sending of the first notice, such second notice need only be sent to each stockholder entitled to appraisal rights who has demanded appraisal rights of its shares in accordance with Section 262(d) of the Delaware Law. **This proxy statement/prospectus/information statement, together with the accompanying notice, constitutes the aforementioned notice in accordance with Section 262(D)(2) of Delaware Law.**

Any stockholder who elects to exercise appraisal rights must mail or deliver the written demand for appraisal to:

Catalyst Biosciences, Inc.
260 Littlefield Ave.
South San Francisco, CA 94080
Attention: Fletcher Payne

A stockholder may withdraw a demand for appraisal within 60 days after the effective date of the merger. Thereafter, the written approval of Catalyst will be needed for such a withdrawal. Upon withdrawal of a demand for appraisal, the right of such stockholder to an appraisal shall cease and such stockholder will become entitled to receive the consideration set forth in the Merger Agreement in exchange for its shares of capital stock of Catalyst.

Within 120 days after the effective date of the merger, in compliance with Section 262 of the Delaware Law, any stockholder of Catalyst who is a "dissenting stockholder," which means that such stockholder has properly demanded an appraisal and has not withdrawn the stockholder's demand as provided above, and Catalyst will each have the right to file in the Delaware Court of Chancery a petition demanding a determination of the value of the shares held by all of the dissenting stockholders. If, within 120 days after the effective date of the merger, no petition shall have been filed as provided above, all rights to appraisal will cease and all of the dissenting stockholders who owned shares of capital stock of Catalyst will become entitled to receive the consideration set forth in the Merger Agreement in exchange for their shares of capital stock of Catalyst. Catalyst is not obligated and does not currently intend to file such a petition. Any dissenting stockholder is entitled, within 120 days after the effective time of the merger and upon written request to Catalyst, to receive from Catalyst a statement setting forth the aggregate number of shares not voted in favor of the merger and with respect to which demands for appraisal have been received and the aggregate number of dissenting stockholders.

Upon the filing of a petition by a dissenting stockholder, service of a copy thereof shall be made upon Catalyst, which shall within 20 days after such service file in the office of the Register in Chancery in which the petition was filed a duly verified list containing the names and addresses of all dissenting stockholders who have demanded payment for their shares and with whom agreements as to the value of their shares have not been reached by Catalyst. The Register in Chancery, if so ordered by the Delaware Court of Chancery, shall give notice of the time and place fixed for the hearing of such petition by registered or certified mail to Catalyst and to the dissenting stockholders shown on the list. Such notice shall also be given by one or more publications at least one week before the day of the hearing, in a newspaper of general circulation published in the City of Wilmington, Delaware or such publication as the Delaware Court of Chancery deems advisable. The costs relating to these notices will be borne by Catalyst.

If a hearing on the petition is held, the Delaware Court of Chancery is empowered to determine which dissenting stockholders have complied with the provisions of Section 262 of the Delaware Law and are entitled to an appraisal of their shares. The Delaware Court of Chancery may require that dissenting stockholders submit their share certificates to the Register in Chancery for notation thereon of the pendency of the appraisal proceedings. The Delaware Court of Chancery is empowered to dismiss the proceedings as to any dissenting stockholder who does not comply with such requirement. Accordingly, dissenting stockholders are cautioned to retain their share certificates pending resolution of the appraisal proceedings.

The Delaware Court of Chancery will appraise the shares, determining their fair value exclusive of any element of value arising from the accomplishment or expectation of the merger, together with a fair rate of interest, if any, to be paid upon the amount determined to be the fair value. In determining the fair value, the Court shall take into account all relevant factors, and in determining the fair rate of interest, the Court may consider all relevant factors. In *Weinberger v. UOP, Inc. et al.*, decided February 1, 1983, the Delaware Supreme Court expanded the considerations that could be considered in determining fair value in an appraisal proceeding, stating that "proof of value by any techniques or methods which are generally considered acceptable in the financial community and otherwise admissible in court" should be considered and that "fair price obviously requires consideration of all relevant factors involving the value of a company." The Delaware Supreme Court stated, in making this determination of fair value, that the court must consider market value, asset value, dividends, earnings, prospects, the nature of the enterprise and any other factors which could be ascertained as of the date of the merger which "throw any light on future prospects of the merged corporation." The Delaware Supreme Court noted that Section 262 of the Delaware Law provides that fair value is to be determined "exclusive of any element of value arising from the accomplishment or expectation of the merger." In *Weinberger*, the Delaware Supreme Court held that "elements of future value, including the nature of the enterprise, which are known or susceptible of proof as of the date of the merger and not the product of speculation, may be considered."

Upon application by Catalyst or by any dissenting stockholder entitled to participate in the appraisal proceeding, the Delaware Court of Chancery may, in its discretion, permit discovery or other pretrial proceedings and may proceed to trial upon the appraisal prior to the final determination of the stockholders entitled to an appraisal. Any stockholder whose name appears on the list of dissenting stockholders filed by Catalyst described above and who has submitted such stockholder's certificates of stock to the Register in Chancery, if such is required, may participate fully in all proceedings until it is finally determined that such stockholder is not entitled to appraisal rights.

The Delaware Court of Chancery may also (a) determine a fair rate of interest (simple or compound), if any, to be paid to dissenting stockholders in addition to the fair value of the shares for the period from the effective time of the merger to the date of payment, (b) assess costs of the proceeding among the parties as the Court deems equitable in the circumstances, and (c) upon applicable of a dissenting stockholder, order all or a portion of the expenses incurred by any dissenting stockholder in connection with the appraisal proceeding, including, without limitation, reasonable attorney's fees and fees and expenses of experts, to be charged pro rata against the value of all shares entitled to appraisal. Determinations by the Delaware Court of Chancery are subject to appellate review by the Delaware Supreme Court.

From and after the effective date of the merger, no dissenting stockholder shall be entitled to vote such Catalyst stock for any purpose or to receive payment of dividends or other distributions on the stock (except dividends or other distributions payable to stockholders of record at a date which is prior to the effective date of the merger). If no petition for an appraisal shall be filed within 120 days after the effective date of the merger, or if such stockholder shall deliver to Catalyst a written withdrawal of such stockholder's demand for an appraisal and an acceptance of the merger, either within 60 days after the effective date of the merger or thereafter with the written approval of Catalyst, then the right of such stockholder to an appraisal shall cease. Notwithstanding the foregoing, no appraisal proceeding in the Court of Chancery shall be dismissed as to any stockholder without the approval of the Court, and such approval may be conditioned upon such terms as the Court deems just.

THE MERGER AGREEMENT

General

The following is a summary of the material terms of the Merger Agreement. Copies of the Merger Agreement, including each amendment thereto, are attached as Annex A-1, Annex A-2 and Annex A-3 to this proxy statement/prospectus/information statement and are incorporated by reference into this proxy statement/prospectus/information statement. The Merger Agreement has been attached to this proxy statement/prospectus/information statement to provide you with information regarding its terms. It is not intended to provide any other factual information about Targacept, Catalyst or Merger Sub. The following description does not purport to be complete and is qualified in its entirety by reference to the Merger Agreement. You should refer to the full text of the Merger Agreement for details of the merger and the terms and conditions of the Merger Agreement.

The Merger Agreement contains representations and warranties that Targacept and Catalyst have made to one another as of specific dates. These representations and warranties have been made for the benefit of the other parties to the Merger Agreement and may be intended not as statements of fact but rather as a way of allocating the risk to one of the parties if those statements prove to be incorrect. In addition, the assertions embodied in the representations and warranties are qualified by information in confidential disclosure schedules exchanged by the parties in connection with signing the Merger Agreement. While Targacept and Catalyst do not believe that these disclosure schedules contain information required to be publicly disclosed under the applicable securities laws, other than information that has already been so disclosed, the disclosure schedules do contain information that modifies, qualifies and creates exceptions to the representations and warranties set forth in the attached Merger Agreement. Accordingly, you should not rely on the representations and warranties as current characterizations of factual information about Targacept or Catalyst, because they were made as of specific dates, may be intended merely as a risk allocation mechanism between Targacept, Merger Sub and Catalyst and are modified by the disclosure schedules.

Structure

Subject to the terms and conditions of the Merger Agreement, and in accordance with Delaware law, at the completion of the merger, Merger Sub, a wholly owned subsidiary of Targacept formed by Targacept in connection with the merger, will merge with and into Catalyst, with Catalyst surviving as a wholly owned subsidiary of Targacept.

Completion and Effectiveness of the Merger

The merger will be completed as promptly as practicable after all of the conditions to completion of the merger are satisfied or waived, including the approval of the stockholders of Targacept and Catalyst. Targacept and Catalyst are working to complete the merger as quickly as practicable. However, Targacept and Catalyst cannot predict the exact timing of the completion of the merger because it is subject to various conditions.

Merger Consideration

At the effective time of the merger, each outstanding share of capital stock of Catalyst will be converted into the right to receive that number of shares of Targacept common stock as determined pursuant to the Exchange Ratio described in the Merger Agreement. No fractional shares of Targacept common stock will be issued in connection with the merger. Instead, each Catalyst stockholder who otherwise would be entitled to receive a fractional share of Targacept common stock (after aggregating all fractional shares of Targacept common stock issuable to such holder) will be entitled to receive an amount in cash representing such holder’s proportionate interest, if any, in the proceeds from the sale of the aggregated fractional shares by the Exchange Agent (reduced by any fees of the Exchange Agent attributable to such sale) at the then prevailing prices on the NASDAQ Global Select Market.

Exchange Ratio

The Exchange Ratio, or ER, will be calculated to the nearest 1/10,000 of a share based on the following formula:

$$ER = \frac{MS}{CS + CO}$$

where,

MS = the total number of Merger Shares, described below;

CS = the number of shares of Catalyst common stock (giving effect to the conversion of all shares of Catalyst preferred stock) outstanding as of immediately prior to the effective time; and

CO = the number of shares of Catalyst common stock issuable, without duplication, upon the exercise of (i) certain agreed to "in-the-money" options to purchase Catalyst common stock and (ii) any warrants and other securities issued on or after March 5, 2015 exercisable or convertible into shares of Catalyst common stock (regardless of the exercise or conversion price of such securities), in each case whether vested or unvested, and not including certain outstanding "out-of-the-money" warrants representing the right to purchase 1,017,528 shares of Catalyst common stock, on an as-converted basis.

The total number of Merger Shares (MS) will be calculated based on the following formula:

$$MS = CP \times \frac{TS + TO}{100\% - CP}$$

where,

CP = the Catalyst Percentage, described below;

TS = the number of shares of Targacept common stock outstanding as of immediately prior to the effective time;

TO = the number of shares of Targacept common stock issuable upon the exercise of certain agreed to "in-the-money" options to purchase Targacept common stock, whether vested or unvested.

The Catalyst Percentage (CP) will be calculated based on the following formula:

$$CP = 100\% \times \frac{\$48{,}000{,}000 + NC_A}{\$83{,}000{,}000 + NC_A}$$

where,

NC_A = an adjustment based on Catalyst "net cash" as of a determination date prior to the closing of the merger, which may be a negative number, but which may not exceed $1,000,000, calculated by subtracting NC_T from NC_B where,

NC_T = $5,000,000, reduced by $150,000 for each week after July 29, 2015 until the effective time of the merger; and

NC_B = cash and cash equivalents, less certain expenses related to the merger and certain other liabilities (not including payroll expenses or liabilities budgeted in the ordinary course of business), and excluding any revenues from Catalyst's collaboration agreements received after March 5, 2015 (referred to as Catalyst's "net cash").

For illustrative purposes only, two example scenarios calculating the Exchange Ratio are described below. These examples have assumed, solely for the hypothetical calculations set forth in this section, that at the effective time of the merger: (i) 34,292,291 shares of Targacept common stock are outstanding (TS) and 374,820 shares of

Targacept common stock subject to "in-the-money" options are outstanding (TO), without giving effect to the planned 7-for-1 reverse stock split described elsewhere in this proxy statement/prospectus/information statement; (ii) 6,618,792 shares of Catalyst common stock subject to "in-the-money" options are outstanding and since March 5, 2015, Catalyst has issued options to purchase 375,000 shares of common stock and warrants to purchase a variable number of shares of preferred stock (CO); and (iii) two weeks have elapsed since July 29, 2015, such that Catalyst's target net cash at closing is $4,700,000 ($NC_T$). Further, these examples do not give effect to the reverse stock split of Targacept common stock prior to the closing and are subject to the payment of cash in lieu of fractional shares.

Case 1: Between July 15, 2015, when 123,991,265 shares of Catalyst common stock were outstanding, and the effective time, Catalyst has issued convertible preferred stock convertible into an additional 40,000,000 shares of common stock immediately prior to closing, as a result of which Catalyst's warrants become exercisable for 3,800,000 shares of common stock immediately prior to the closing, and as of the effective time, Catalyst's net cash is $5,000,000.

In this case, the excess of Catalyst's net cash over target will be $300,000 such that the Catalyst Percentage, CP, will be 58.0%. As a result, the Merger Shares, MS, will equal 47,840,613, and, because the outstanding shares of Catalyst common stock immediately prior to the effective time, CS, will be 163,991,265, and the number of "in-the-money" and new options and warrants immediately prior to the effective time, CO, will be 10,793,792, the Exchange Ratio will be 0.2737.

Therefore, if the merger had been completed based on such calculation and you owned 1,000 shares of Catalyst capital stock as of the effective time, you would have had the right to receive 273 shares of Targacept common stock in exchange for your shares of Catalyst capital stock, plus cash in lieu of a fraction of a share.

Case 2: Between July 15, 2015, when 123,991,265 shares of Catalyst common stock were outstanding, and the effective time, Catalyst has issued convertible preferred stock convertible into an additional 25,000,000 shares of common stock immediately prior to closing, as a result of which Catalyst's warrants become exercisable for 3,125,000 shares of common stock immediately prior to the closing and as of the effective time, Catalyst's net cash is $3,800,000.

In this case, the excess of Catalyst's net cash shortfall will be $900,000 such that the Catalyst Percentage, CP, will be 57.4%. As a result, the Merger Shares, MS, will equal 46,219,683, and, because the outstanding shares of Catalyst common stock immediately prior to the effective time, CS, will be 148,991,265, and the number of "in-the-money" and new options and warrants immediately prior to the effective time, CO, will be 10,118,792, the Exchange Ratio will be 0.2905.

Therefore, if the merger had been completed based on such calculation and you owned 1,000 shares of Catalyst capital stock as of the effective time, you would have had the right to receive 290 shares of Targacept common stock in exchange for your shares of Catalyst capital stock, plus cash in lieu of a fraction of a share.

The Exchange Ratio will be determined based in part upon the amount of "net cash" of Catalyst as of a determination date prior to the closing date of the merger. Catalyst's net cash balances at the determination date are subject to numerous factors, many of which are outside of Catalyst's control. For a more complete discussion of the determination of Catalyst's net cash, see the section entitled "—Determination of Catalyst's Net Cash" below.

Determination of Catalyst's Net Cash

For purposes of determining the Exchange Ratio and determining whether Catalyst has satisfied the condition to closing that Catalyst have at least $3.5 million in net cash as of the closing date (as calculated pursuant to the terms of the Merger Agreement), Catalyst's net cash will be calculated shortly before the closing date of the merger. The closing of the merger could be delayed if Targacept and Catalyst are not able to agree upon the amount of Catalyst's net cash as of Catalyst's cash determination date.

Under the Merger Agreement, Catalyst's "net cash" is defined as the amount of its (A) cash and cash equivalents (excluding any amount paid after March 5, 2015 pursuant to Catalyst's Research and License Agreement with Wyeth or Catalyst's License and Collaboration Agreement with ISU Abxis) less (B) the sum of (i) any unpaid Catalyst transaction expenses incurred in connection with the merger and related transactions and (ii) any unpaid pre-closing liabilities or obligations relating to Catalyst's pre-closing business operations, other than payroll expenses, other budgeted expenses in the ordinary course of business and payables in the ordinary course of business.

One of the conditions to Targacept's obligation to complete the merger is Catalyst's net cash as of the closing date being no less than $3.5 million as calculated pursuant to the provisions of the Merger Agreement, provided that such minimum amount shall be reduced by $150,000 for each week after July 29, 2015 up to the completion of the merger. In addition, one of the conditions to Catalyst's obligations to complete the merger is Targacept's net cash as of the closing date being no less than $72.0 million.

Catalyst's net cash balance at the determination date is subject to numerous factors, many of which are outside of Catalyst's control. If Catalyst's net cash at the closing date is less than $3.5 million (subject to downward adjustment as described above), based on the manner of calculating net cash pursuant to the Merger Agreement, Catalyst would be unable to satisfy a closing condition for the merger, and Targacept could elect to waive the condition or not effect the merger.

Determination of Targacept's Net Cash

For purposes of determining whether Targacept has satisfied the condition to closing that Targacept have at least $72.0 million in net cash as of the closing date (as calculated pursuant to the terms of the Merger Agreement), Targacept's net cash will be calculated shortly before the closing of the merger. The closing of the merger could be delayed if Targacept and Catalyst are not able to agree upon the amount of Targacept's net cash as of Targacept's cash determination date.

Under the Merger Agreement, Targacept's "net cash" is defined as the amount of (A) the cash and cash equivalents of Targacept less (B) the sum of (i) the unpaid Targacept transaction expenses incurred in connection with the merger and related transactions as of the effective time of the merger and (ii) the net costs of Targacept with respect to any disposition of any or all NNR Assets and liabilities relating thereto and any unpaid post-closing liabilities or obligations relating to Targacept's pre-closing business operations, whether or not required to be disclosed on a balance sheet of Targacept under GAAP.

Targacept's net cash balance at the determination date is subject to numerous factors, many of which are outside of Targacept's control. Additionally, if Targacept's net cash at the closing date is less than $72.0 million, based on the manner of calculating net cash pursuant to the Merger Agreement, Targacept would be unable to satisfy a closing condition for the merger, and Catalyst could elect to terminate the Merger Agreement or waive the condition.

Cash from Targacept remaining in the combined company is expected to be $35.0 million, and it is anticipated that Catalyst will have approximately $5.0 million of cash at the time of the closing.

Targacept Stock

Each share of Targacept common stock issued and outstanding at the time of the merger will remain issued and outstanding and those shares will be unaffected by the merger. Targacept stock options and other equity awards that are vested and unexercised immediately prior to the effective time of the merger will also remain outstanding and be unaffected by the merger, provided that there will be an adjustment to exercise price and number of shares underlying these options and equity awards to account for the Pre-Closing Dividend, in accordance with the terms of the Merger Agreement. Please see "Agreements Related to the Merger—Pre-Closing Dividend" beginning on page 138. As of the closing, current Targacept equityholders will own approximately 42% of the combined company immediately after the completion of the merger subject to any adjustments as described under "—Merger Consideration and Adjustment."

Procedures for Exchanging Catalyst Stock Certificates

Promptly after the effective time of the merger, American Stock Transfer & Trust Company, LLC, as the exchange agent for the merger, will establish an exchange fund to hold the shares of Targacept common stock to be issued to Catalyst stockholders in connection with the merger.

As promptly as practicable following the completion of the merger, the exchange agent will mail to each holder of record of Catalyst capital stock a letter of transmittal and instructions for surrendering the record holder's stock certificates in exchange for the shares of Targacept common stock. Upon proper surrender of Catalyst stock certificates together with a properly completed and duly executed letter of transmittal in accordance with the exchange agent's instructions, the holder of such Catalyst stock certificates will be entitled to receive shares representing the number of whole shares of Targacept common stock issuable to such holder pursuant to the merger and cash in lieu of any fractional share of Targacept common stock issuable to such holder. The surrendered certificates representing Catalyst common stock and Catalyst preferred stock will be cancelled.

After the effective time of the merger, each certificate representing shares of Catalyst common stock or Catalyst preferred stock that has not been surrendered will represent only the right to receive shares of Targacept common stock issuable pursuant to the merger and cash in lieu of any fractional share of Targacept common stock to which the holder of any such certificate is entitled. No interest will be paid or accrued on any cash in lieu of fractional shares payable to holders of Catalyst stock certificates.

Any holder or former holder of Catalyst common stock or Catalyst preferred stock may be subject to withholding under the Code, or under another provision of state, local or foreign tax law. To the extent such amounts are withheld and paid to the appropriate governmental entity, they will be treated as having been paid to the person to whom such amounts would otherwise have been paid.

HOLDERS OF CATALYST COMMON STOCK AND CATALYST PREFERRED STOCK SHOULD NOT SEND IN THEIR CATALYST STOCK CERTIFICATES UNTIL THEY RECEIVE A LETTER OF TRANSMITTAL FROM THE EXCHANGE AGENT WITH INSTRUCTIONS FOR THE SURRENDER OF CATALYST STOCK CERTIFICATES.

Fractional Shares

No fractional shares of Targacept common stock will be issuable pursuant to the merger to Catalyst stockholders. Instead, each Catalyst stockholder who would otherwise be entitled to receive a fraction of a share of Targacept common stock, after aggregating all fractional shares of Targacept common stock issuable to such stockholder, will be entitled to receive a cash payment in lieu of such fractional shares representing such holder's proportionate interest, if any, in the proceeds from the sale by the exchange agent (reduced by any fees attributable to such sale) in one or more transactions of shares of Targacept common stock equal to the excess of (i) the aggregate number of shares of Targacept common stock issuable in exchange for all outstanding shares of Catalyst common stock and preferred stock over (ii) the aggregate number of whole shares of Targacept common stock to be distributed to holders of Catalyst stock certificates.

Pre-Closing Dividend

Prior to the closing of the merger, Targacept plans to declare a dividend to its stockholders that will consist of $37.0 million in aggregate principal amount of redeemable convertible notes and approximately $19.0 million in cash, collectively referred to as the Pre-Closing Dividend. At the option of the noteholders, the notes will be redeemable at any time within 30 months of the closing of the merger or convertible within 30 months after closing into shares of common stock at a conversion rate of $9.19 per share, which represents 130% of the negotiated per-share value of Targacept's assets following the anticipated Pre-Closing Dividend, as adjusted to reflect the planned 7-for-1 reverse stock split described elsewhere in this proxy statement/prospectus/information statement. For more information on the Pre-Closing Dividend, see the section entitled "Agreements Related to the Merger—Pre-Closing Dividend," beginning on page 138.

Representations and Warranties

The Merger Agreement contains customary representations and warranties made by Targacept and Catalyst relating to their respective businesses, as well as other facts pertinent to the merger. These representations and warranties are subject to materiality, knowledge and other similar qualifications in many respects and expire at the effective time of the merger or termination of the Merger Agreement, as further described below. The representations and warranties of each of Targacept and Catalyst have been made solely for the benefit of the other parties and those representations and warranties should not be relied on by any other person. In addition, those representations and warranties may be intended not as statements of actual fact, but rather as a way of allocating risk among the parties, may have been modified by the disclosure schedules delivered in connection with the Merger Agreement, are subject to the materiality standard described in the Merger Agreement, which may differ from what may be viewed as material by you, will not survive completion of the merger and cannot be the basis for any claims under the Merger Agreement by the other parties after termination of the Merger Agreement, and were made only as of the date of the Merger Agreement or another date as is specified in the Merger Agreement.

Catalyst made a number of representations and warranties to Targacept and Merger Sub in the Merger Agreement, including representations and warranties relating to the following matters:

- corporate organization, power, authority and qualifications to do business and corporate standing;
- capitalization and ownership of subsidiaries;
- corporate power and authority to enter into the Merger Agreement and to complete the merger;
- absence of any conflicts with organizational documents, required notices, consents or approvals, violations or breaches of any obligations or applicable laws as a result of, and the completion of corporate actions necessary for, entering into the Merger Agreement and of completing the transactions contemplated by the Merger Agreement;
- financial statements and sufficiency of disclosure controls and procedures and internal controls;
- absence of certain changes or events since December 31, 2013;
- title to assets;
- leased property;
- intellectual property;
- material contracts and the absence of breaches of material contracts;
- absence of undisclosed liabilities;
- compliance with applicable laws;
- regulatory compliance;
- taxes and tax returns;
- employee benefit programs;
- labor and employment matters;
- environmental liability;
- insurance;
- books and records;
- government programs;
- related party transactions;

- legal proceedings and orders;
- absence of illegal payments;
- state takeover laws;
- vote required by Catalyst stockholders;
- broker's fees; and
- information relating to Catalyst included in this proxy statement/prospectus/information statement and the registration statement on Form S-4.

Targacept made a number of representations and warranties to Catalyst in the Merger Agreement, including representations and warranties relating to the following subject matters:

- corporate organization, power, authority and qualifications to do business and corporate standing;
- capitalization and ownership of subsidiaries;
- corporate power and authority to enter into the Merger Agreement and to complete the transactions contemplated by the Merger Agreement;
- absence of any conflicts with organizational documents, required notices, consents or approvals, violations or breaches of any obligations, or applicable laws as a result of, and the completion of corporate actions necessary for, entering into the Merger Agreement and of completing the transactions contemplated by the Merger Agreement;
- SEC filings and the financial statements contained in those filings, compliance with NASDAQ rules, sufficiency of internal controls and disclosure controls and procedures, and compliance with the Sarbanes-Oxley Act;
- absence of certain changes or events since September 30, 2014;
- title to assets;
- leased properties;
- intellectual property;
- material contracts and the absence of breaches of material contracts;
- absence of undisclosed liabilities;
- compliance with applicable laws;
- regulatory compliance;
- taxes and tax returns;
- employee benefit programs;
- labor and employment matters;
- environmental liability;
- insurance;
- books and records;
- government programs;
- related party transactions;
- legal proceedings and orders;

- absence of illegal payments;
- state takeover laws;
- vote required of Targacept stockholders;
- broker's fees; and
- information relating to Targacept and Merger Sub included in this proxy statement/prospectus/information statement and the registration statement on Form S-4.

As noted above, significant portions of the representations and warranties are qualified as to "materiality" or "material adverse effect." Under the Merger Agreement, a material adverse effect means any change, circumstance, condition, development, effect, event, occurrence, result or state of facts that, individually or when taken together with any other related such change, circumstance, condition, development, effect, event, occurrence, result or state of facts, (a) has or would reasonably be expected to: (i) prevent or materially delay the ability of the parties to complete the transactions contemplated by the Merger Agreement or (ii) have a material adverse effect on the business, financial condition, assets, liabilities or results of operations of Targacept or Catalyst, as applicable, and their respective subsidiaries, taken as a whole, except that none of the following, as they apply to Targacept, Catalyst and any of their subsidiaries, will be taken into account in determining whether there has been a material adverse effect:

- changes in general economic or political conditions or the capital or securities markets in general (whether as a result of acts of terrorism, war (whether or not declared), armed conflicts or otherwise) to the extent they do not disproportionately affect Targacept or Catalyst or any of their subsidiaries, taken as a whole, as applicable;
- changes in or affecting the industries in which either Targacept or Catalyst operate, to the extent they do not disproportionately affect Targacept or Catalyst or any of their subsidiaries, taken as a whole, as applicable;
- changes, effects or circumstances resulting from the announcement or pendency of the Merger Agreement, the completion of the merger and the transactions contemplated by the Merger Agreement, or compliance with the terms of the Merger Agreement;
- any specific action taken at the written request of Targacept, Merger Sub or Catalyst, as applicable, or expressly required by the Merger Agreement;
- any changes in laws or applicable accounting principles, or interpretations thereof;
- the commencement, continuation or escalation of war, terrorism or hostilities, or natural disasters or political events;
- any changes in or affecting research and development, clinical trials or other drug development activities conducted by or on behalf of Targacept or any subsidiaries, in respect of each of Targacept's products or product candidates; and
- continued losses from operations or decreases in cash balances of Targacept.

In addition, no change, circumstance, condition, development, effect, event, occurrence, result or state of facts relating to NNR Assets shall be considered to be or taken into account in determining whether there has been a material adverse effect for Targacept, and Pfizer's termination of its research and license agreement with Catalyst does not constitute a breach by Catalyst of any representation, warranty or covenant of Catalyst contained in the Merger Agreement and shall not be taken into account in determining whether there has been a material adverse effect for Catalyst.

Covenants; Conduct of Business Pending the Merger

During the period commencing on March 5, 2015 and ending at the earlier of the date of termination of the Merger Agreement and the effective time of the merger, Catalyst agreed that it will conduct its business in the ordinary course and in compliance with all applicable laws, rules, regulations, and certain contracts, and to take other agreed-upon actions, including, without limitation, using its commercially reasonable efforts to preserve intact its current business organization, keep available the services of its current key employees, officers and other employees and maintain its relations and goodwill with suppliers, customers, landlords, creditors, licensors, licensees, employees and others Catalyst has business relationships with and providing Targacept prompt notice upon the occurrence of certain events or discovery of certain conditions, facts or circumstances. During the same period, Targacept also agreed that it will conduct its business in the ordinary course and in compliance with all applicable laws, rules, regulations and certain contracts, and to take other agreed-upon actions, including, without limitation, providing Catalyst prompt notice upon the occurrence of certain events or discovery of certain conditions, facts or circumstances.

Targacept and Catalyst also agreed that prior to the effective time of the merger, subject to certain limited exceptions set forth in the Merger Agreement, without the consent of the other party, each of Targacept and Catalyst would not, and would not cause or permit any of their subsidiaries to:

- declare, accrue, set aside or pay any dividend other than the Pre-Closing Dividend, in the case of Targacept, or make any other distribution in respect of any shares of capital stock; or repurchase, redeem or otherwise reacquire any shares of capital stock or other securities (except for shares of common stock from terminated employees);
- except for contractual commitments in place at the time of and as otherwise disclosed in, the Merger Agreement, and other than the reverse stock split in the case of Targacept, sell, issue or grant, or authorize the issuance of, or make any commitments to do, any of the following: (i) any capital stock or other security (except (a) in the case of Targacept, for Targacept common stock issued upon the valid exercise of outstanding Targacept stock options and (b) in the case of Catalyst, shares of Catalyst common stock issued upon the valid exercise of Catalyst stock options or Catalyst warrants outstanding on the date of the Merger Agreement and disclosed in the Merger Agreement); (ii) any option, warrant or right to acquire any capital stock or any other security; or (iii) any instrument convertible into or exchangeable for any capital stock or other security;
- amend its certificate of incorporation, bylaws or other charter or organizational documents, or effect or become a party to any merger, consolidation, share exchange, business combination, recapitalization, reclassification of shares, stock split, or reverse stock split, except for the transactions contemplated by the Merger Agreement;
- form any subsidiary or acquire any equity interest or other interest in any other entity;
- other than in the ordinary course of business in the case of Catalyst, lend money to any person; incur or guarantee any indebtedness for borrowed money; issue or sell any debt securities or options, warrants, calls or other rights to acquire any debt securities; guarantee any debt securities of others; or make any capital expenditure or commitment in excess of $100,000 other than in the ordinary course of business;
- other than in the ordinary course of business in the case of Catalyst, adopt, establish or enter into any employee plan; cause or permit any employee plan to be amended other than as required by law or, in the case of Targacept, in order to make amendments for the purposes of Section 409A of the Code, subject to prior review and approval of Catalyst (with such approval not to be unreasonably withheld); in the case of Targacept, hire any new employee or consultant; or grant, make or pay any severance bonus or profit-sharing or similar payment to, or increase the amount of the wages, salary, commissions, fringe benefits or other compensation or remuneration payable to, any of its directors, employees or consultants; in the case of Catalyst, pay any bonus or make any profit-sharing or similar payment to, or increase the amount of the wages, salary, commissions, fringe benefits or other compensation or remuneration payable to, any of its directors, officers or employees;

- in the case of Targacept, enter into any material transaction outside the ordinary course of business;
- acquire any material asset or sell, lease or otherwise irrevocably dispose of any of its assets or properties, in the case of Catalyst, or material assets or properties, in the case of Targacept, or grant any encumbrance with respect to such assets or properties, except in the ordinary course of business;
- make, change or revoke any material tax election; file any material amendment to any income tax return; adopt or change any accounting method in respect of taxes; change any annual tax accounting period; enter into any material tax allocation agreement, tax sharing agreement or tax indemnity agreement, other than commercial contracts entered into in the ordinary course of business with vendors, customers or landlords; enter into any closing agreement with respect to any tax; settle or compromise any claim, notice, audit report or assessment in respect of material taxes; apply for or enter into any ruling from any tax authority with respect to taxes; surrender any right to claim a material tax refund; or consent to any extension or waiver of the statute of limitations period applicable to any material tax claim or assessment;
- in the case of Targacept, enter into, amend or terminate any material contract and in the case of Catalyst, unless approved by the Catalyst board of directors, enter into, amend or terminate any material contract other than in the ordinary course of business;
- in the case of Targacept, commence a lawsuit other than (i) for routine collection of bills; (ii) in such cases as either party in good faith determines that failure to commence such lawsuit would result in the material impairment of a valuable aspect of its or its subsidiaries' business; or (iii) for a breach of the Merger Agreement; or
- fail to make (a) in the case of Targacept, any material payment with respect to any of its accounts payable or indebtedness in a timely manner in accordance with the terms thereof and consistent with past practices and (b) in the case of Catalyst, any payment with respect to any of its accounts payable or indebtedness in a timely manner in accordance with the terms thereof and consistent with past practice.

No Solicitation

The Merger Agreement contains provisions prohibiting Targacept and Catalyst from seeking a competing transaction, subject to specified exceptions described below. Under these "no solicitation" provisions, each of Targacept and Catalyst has agreed that neither it nor its subsidiaries, nor any of its officers, directors, employees, representatives, affiliates, advisors or agents shall directly or indirectly:

- initiate, solicit, seek or knowingly encourage or support any inquiries, proposals or offers that constitute or may reasonably be expected to lead to any competing proposal;
- engage or participate in, or knowingly facilitate, any discussions or negotiations regarding, or furnish any nonpublic information to any person in connection with, any inquiries, proposals or offers that constitute, or may reasonably be expected to lead to, a competing proposal;
- in the case of Targacept, not to release or permit the release of any person from, or to waive or permit the waiver of any provision of, any "standstill" or similar agreement, including any "standstill" provision contained in any confidentiality agreement, to which Targacept or any of its subsidiaries is a party, and will use its commercially reasonable efforts to enforce or cause to be enforced each such agreement at the request of Catalyst;
- enter into any letter of intent, agreement in principle or other similar type of agreement relating to a competing proposal, or enter into any agreement or agreement in principle requiring either Targacept or Catalyst, as the case may be, to abandon, terminate or fail to complete the merger; or
- resolve, propose or agree to do any of the foregoing.

However, prior to the approval of the proposals relating to the merger set forth in this proxy statement/prospectus/information statement at the meeting of the stockholders of either Targacept or by written consent of Catalyst stockholders, as the case may be, either Targacept or Catalyst may, after providing written notice to the other party, furnish nonpublic information to and engage in discussions or negotiations with any third-party that makes an unsolicited bona fide written competing proposal that its board of directors in good faith, after consultation with its outside legal counsel and nationally recognized independent financial advisors, has determined constitutes or is reasonably expected to result in a superior competing proposal, only if:

- such party receives from such third-party an executed confidentiality agreement the terms of which are not less restrictive to the third-party than those contained in the confidentiality agreement between Targacept and Catalyst;
- such party receiving the competing proposal contemporaneously supplies to the other party (Targacept or Catalyst, as the case may be) any nonpublic information or access to any such nonpublic information granted to such third-party to the extent it had not been previously provided or made available;
- such party has not breached the no solicitation provisions of the Merger Agreement; and
- the board of directors of Targacept or Catalyst, as the case may be, determines in good faith, after consultation with its outside legal counsel and its financial advisors that taking such actions would be required to comply with the fiduciary duties of the board of directors under applicable laws.

Targacept and Catalyst will notify the other no later than twenty-four hours after receipt of any inquiries, discussions, negotiations, proposals or expressions of interest with respect to a competing proposal, and any such notice will be made orally and in writing and will indicate in reasonable detail the terms and conditions of such proposal, inquiry or contact, including price, and the identity of the offeror. Both Targacept and Catalyst will keep the other informed, on a current basis, of the status and material developments (including any changes to the terms) of such competing proposal.

A competing proposal is any of the following proposals, indications of interest, or offers, other than transactions contemplated by the Merger Agreement:

- a merger, tender offer, recapitalization, reorganization, liquidation, dissolution, business combination, share exchange, arrangement or consolidation, or any similar transaction involving a party to the Merger Agreement or any of its subsidiaries;
- a sale, lease, exchange, mortgage, pledge, transfer or other acquisition of fifteen percent (15%) or more of the assets of a party to the Merger Agreement and its subsidiaries, taken as a whole, in one or a series of related transactions; or
- a purchase, tender offer or other acquisition (including by way of merger, consolidation, share exchange, arrangement, consolidation or otherwise) of beneficial ownership of securities representing fifteen percent (15%) or more of the voting power of Targacept or Catalyst;

provided, however, that in the case of Targacept, a competing proposal shall not include any disposition of NNR Assets.

A superior competing proposal is any unsolicited bona fide competing proposal (with all references to 15% in the definition of competing proposal being treated as references to 100% for these purposes) made by a third-party that the board of directors of either Targacept or Catalyst, as the case may be, determines in good faith, after consultation with its outside legal counsel and financial advisor, and after taking into account all financial, legal, regulatory, and other aspects of the competing proposal, that the competing proposal is more favorable from a financial point of view to its stockholders than as provided in the Merger Agreement, is not subject to any financing condition, is reasonably capable of being completed on the terms proposed without unreasonable delay and includes termination rights on terms no less favorable than the terms set forth in the Merger Agreement, all from a third-party capable of performing such terms.

Either Targacept or Catalyst, as the case may be, may terminate the Merger Agreement if the board of directors, and/or any committee of the board of directors, of the other party has (each such action, a "change of recommendation" by the board of directors and/or any committee of the board of directors of Targacept or Catalyst, as the case may be):

- failed to make, withheld, withdrew, amended, changed or publicly proposed to withhold, withdraw, amend or change in a manner adverse to either Targacept or Catalyst, as the case may be, its approval and recommendation to stockholders relating to the merger;
- knowingly made a public statement inconsistent with its recommendation to stockholders;
- failed to recommend against the acceptance of a tender offer within ten business days after commencement;
- proposed publicly to approve, adopt or recommend any competing proposal;
- made any public statement inconsistent with its recommendation; or
- failed to reaffirm its recommendation to stockholders or failed to state publicly that the merger and the Merger Agreement are in the best interests of their respective stockholders, within five business days after Targacept or Catalyst, as the case may be, requests in writing that such action be taken.

Either Targacept or Catalyst, as the case may be, may also terminate the Merger Agreement if it enters into a definitive agreement to effect a superior competing proposal. If the Merger Agreement is terminated in connection with these provisions, (i) Targacept has agreed to pay Catalyst a fee of $3.22 million if the termination is a result of Targacept entering into a definitive agreement to effect a superior competing proposal and (ii) Catalyst has agreed to pay Targacept a fee of $2.275 million if the termination is a result of Catalyst entering into a definitive agreement to effect a superior competing proposal. See "—Termination of the Merger Agreement and Termination Fee" below for a more complete discussion of the termination fees.

Disclosure Documents

As promptly as practicable following the date of the Merger Agreement, Targacept agreed to prepare and file with the SEC this proxy statement/prospectus/information statement and Targacept, in cooperation with Catalyst, agreed to prepare and file with the SEC a registration on Form S-4, of which this proxy statement/prospectus/information statement is a part, in connection with the registration under the Securities Act of the shares of Targacept common stock to be issued pursuant to the merger and registration of the Redeemable Convertible Notes and shares issuable on conversion of such notes. Each of Targacept and Catalyst agreed to use their commercially reasonable efforts to cause the registration statement to become effective as promptly as practicable, and take all or any action required under any applicable federal and state securities and other laws in connection with the issuance of shares of Targacept common stock pursuant to the merger. Each of Targacept and Catalyst agreed to use their commercially reasonable efforts to cause all documents that it is respectively responsible for filing with the SEC in connection with the transactions contemplated by the Merger Agreement to comply as to form and substance in all material respects with the applicable requirements of the Securities Act and the Securities Exchange Act of 1934, as amended, or Exchange Act. Catalyst agreed to ensure that their financial statements will comply as to form in all material respects, prior to the filing of the Form S-4, with the published rules and regulations of the SEC with respect thereto. Each of Targacept, Merger Sub and Catalyst agreed to furnish all information concerning itself and their subsidiaries, as applicable, to the other parties as the other parties may reasonably request in connection with such actions and the preparation of the registration statement and proxy statement. Targacept agreed to use commercially reasonable efforts to cause this proxy statement/prospectus/information statement to be mailed to its stockholders as promptly as practicable after the Form S-4 is declared effective by the SEC.

Meeting of Targacept's Stockholders and Written Consent of Catalyst's Stockholders

Targacept is obligated under the Merger Agreement to call, give notice of and hold a meeting of its stockholders for the purposes of voting on the Merger Agreement and the issuance of shares of Targacept common stock pursuant to the merger and, if deemed necessary by the parties, to amend its certificate of incorporation to effect the reverse stock split. The Targacept stockholders' meeting will be held (on a date selected by Targacept in consultation with Catalyst) not later than forty-five (45) days after the effective date of the Form S-4 pursuant to the Merger Agreement. If on the scheduled date of the Targacept annual stockholders meeting, Targacept has not obtained the requisite approval of its stockholders, Targacept will have the right, after consultation with Catalyst, to adjourn the stockholder meeting to a later date or dates, such later date or dates not to exceed 30 days from the original date that the stockholder meeting was scheduled.

Catalyst is obligated under the Merger Agreement to take all action necessary in accordance with the Merger Agreement, applicable law, and Catalyst's restated certificate of incorporation and bylaws, to obtain, promptly after receiving written notice from Targacept that the Form S-4 registration statement has been declared effective under the Securities Act, and in any event no later than twenty-four hours after receiving such notice, adoption of the Merger Agreement and approval of the merger by written consent of Catalyst's stockholders.

Regulatory Approvals

Neither Targacept nor Catalyst is required to make any filings or to obtain approvals or clearances from any antitrust regulatory authorities in the United States or other countries to complete the merger. In the United States, Targacept must comply with applicable federal and state securities laws and NASDAQ rules and regulations in connection with the issuance of shares of Targacept's common stock in the merger, including the filing with the SEC of this proxy statement/prospectus/information statement. The Merger Agreement provides that Catalyst and Targacept shall respond as promptly as is practicable in compliance with: (i) any inquiries or requests received from the Federal Trade Commission or the Department of Justice for information or documentation; and (ii) any inquiries or requests received from any other governmental body in connection with antitrust or competition matters.

Catalyst Stock Options and Catalyst Warrants

At the effective time of the merger, each outstanding option and warrant, whether or not vested, to purchase Catalyst common stock unexercised immediately prior to the effective time of the merger will be converted into an option or warrant to purchase Targacept common stock. All rights with respect to each Catalyst option or warrant will be assumed by Targacept in accordance with its terms. Accordingly, from and after the effective time of the merger each option or warrant assumed by Targacept may be exercised solely for shares of Targacept common stock.

The number of shares of Targacept common stock subject to each outstanding Catalyst option or warrant assumed by Targacept will be determined by multiplying the number of shares of Catalyst common stock that were subject to such option or warrant, as applicable, by the Exchange Ratio and rounding the resulting number down to the nearest whole number of shares of Targacept common stock. The per share exercise price for the Targacept common stock issuable upon exercise of each Catalyst option or warrant assumed by Targacept will be determined by dividing the per share exercise price of Catalyst common stock subject to such option or warrant, as applicable, by the Exchange Ratio and rounding the resulting exercise price up to the nearest whole cent. Any restriction on the exercise of any option or warrant will continue in full force and effect and the term, exercisability, vesting schedule and other provisions of such option will, subject to certain exceptions set forth in the Merger Agreement, otherwise remain unchanged. Likewise, any restriction on any warrant assumed by Targacept shall continue in full force and effect and the term, exercisability, vesting schedule and other provisions of such warrant shall, subject to certain exceptions set forth in the Merger Agreement, otherwise remain unchanged.

Indemnification of Officers and Directors

Pursuant to the Merger Agreement, upon the completion of the merger, Targacept and Merger Sub agreed that all rights to indemnification, exculpation or advancement of expenses now existing in favor of, and all limitations on the personal liability of each present and former director and officer of Targacept or Catalyst and their respective subsidiaries as provided for in their respective organizational documents in effect as of the date of the Merger Agreement, will continue to be honored and in full force and effect for a period of six years after the closing of the merger. The certificate of incorporation and by-laws of the combined company will contain provisions with respect to indemnification, exculpation from liability and advancement of expenses that are at least as favorable as those currently in Targacept's organizational documents and Catalyst's organizational documents, as applicable, and during such six year period following the effective time, Targacept will not amend, repeal or otherwise modify such provisions in any manner that would materially and adversely affect the rights of the directors or officers of Targacept or Catalyst in respect of actions or omissions occurring at or prior to the effective time of the merger. The Merger Agreement also provides that each of Targacept and Catalyst will purchase a six-year "tail" policy under its existing directors' and officers' liability insurance policy, with an effective date as of the closing, provided that Targacept or Catalyst, as the case may be, may substitute policies of at least the same coverage containing terms and conditions that are not less favorable in any material respect. In no event will either Targacept or Catalyst be required to expend more than an amount equal to 200% of the respective current annual premiums paid by such party for such insurance. During the term of the respective "tail" policies, neither Targacept nor the combined company will take any action following the closing of the merger to cause their respective "tail" policies to be cancelled or any provision of such policies to be amended or waived in any manner that would adversely affect in any material respect the rights of their former and current officers and directors.

Additional Agreements

Each of Catalyst and Targacept has agreed to, among other things:

- use its commercially reasonable efforts to take all actions and satisfy all conditions necessary to complete the merger and any transaction contemplated by the Merger Agreement;
- make all filings and other submissions and give all notices required to be made or given by such party in connection with the merger and the other transactions contemplated by the Merger Agreement;
- use its commercially reasonable efforts to obtain all consents reasonably required in connection with the merger and the other transactions contemplated by the Merger Agreement;
- use its commercially reasonable efforts to lift any injunction prohibiting, or any other legal bar to, the merger or other transactions contemplated by the Merger Agreement;
- coordinate reasonably with the other party and provide the other party with such assistance as may be reasonably requested for the purpose of facilitating the performance by each party of their obligation under the Merger Agreement; and
- use its reasonable best efforts to cause the merger to qualify as a "reorganization" under Section 368(a) of the Code.

NASDAQ Listing

Targacept's common stock currently is listed on The NASDAQ Global Select Market under the symbol "TRGT." Pursuant to the Merger Agreement, Targacept agreed to use its commercially reasonable efforts to cause the shares of Targacept common stock being issued in the merger, including the shares of Targacept common stock issuable in connection with the assumption of Catalyst's stock options, to be approved for listing on The NASDAQ Global Select Market (or such other NASDAQ market on which Targacept's common stock is then listed) at or prior to the effective time of the merger. Targacept has filed an initial listing application with The

NASDAQ Global Select Market for companies conducting a business combination that results in a change of control. If such application is accepted, Targacept anticipates that its common stock will continue to be listed on The NASDAQ Global Select Market following the closing of the merger under the trading symbol “CBIO.”

Directors and Officers of Targacept Following the Merger

Pursuant to the Merger Agreement, immediately following the effective time, the initial size of the board of directors of the combined company will be seven and the initial directors will be:

- Class I directors (term ending 2016): Stephen A. Hill, M.D. and Augustine Lawlor;
- Class II directors (term ending 2017): John P. Richard and Jeff Himawan, Ph.D.; and
- Class III directors (term ending 2018): Errol B. De Souza, Ph.D., Harold E. Selick, Ph.D. and Nassim Usman, Ph.D.

Targacept agreed to cause all of the directors to be placed into the aforementioned classes in accordance with the Merger Agreement, and shall cause Harold E. Selick, Ph.D. to be designated as the Chairman of the Board of Directors of Targacept upon the closing of the merger, Nassim Usman, Ph.D. will serve as President and Chief Executive Officer, Fletcher Payne will serve as Chief Financial Officer and Edwin Madison, Ph.D. will serve as Chief Scientific Officer.

Stockholder Proposals

Targacept agreed to submit to its stockholders amendments to its restated certificate of incorporation, to, among other things, effect a reverse stock split of the outstanding shares of Targacept common stock, at a reverse split ratio mutually agreed to by Targacept and Catalyst. The amendment to the restated certificate of incorporation will also change the name from “Targacept, Inc.” to “Catalyst Biosciences, Inc.,” subject to the completion of the merger.

Conditions to Completion of the Merger

The respective obligations of Targacept and Catalyst to complete the merger and the other transactions contemplated by the Merger Agreement are subject to the satisfaction or waiver of various conditions that include, in addition to other customary closing conditions, the following:

- there must not have been issued any temporary restraining order, preliminary or permanent injunction or other order preventing the completion of the merger and/or the Pre-Closing Dividend, and no law, statute, rule, regulation, ruling or decree shall be in effect which has the effect of making the completion of the merger and/or the Pre-Closing Dividend illegal;
- stockholders of Catalyst must have approved and adopted the Merger Agreement and approved the merger and the conversion of Catalyst’s preferred stock into Catalyst common stock, and stockholders of Targacept must have approved the issuance of Targacept common stock to the stockholders of Catalyst by virtue of the merger and, if deemed necessary by the parties, an amendment to Targacept’s restated certificate of incorporation to effect the reverse stock split;
- there must not be any legal proceeding pending, or overtly threatened in writing by an official of any governmental body in which such governmental body indicates that it intends to conduct any legal proceeding or take any other action challenging or seeking to restrain or prohibit the completion of the merger and/or the Pre-Closing Dividend; relating to the merger and/or the Pre-Closing Dividend and seeking to obtain from Targacept, Merger Sub or Catalyst any damages or other relief that may be material to Targacept or Catalyst; seeking to prohibit or limit in any material and adverse respect a party’s ability to vote, transfer, receive dividends with respect to or otherwise exercise ownership rights with respect to the stock of Targacept; or that would materially adversely affect the right or ability of Targacept or Catalyst to own the assets or operate the business of Targacept or Catalyst;

- the registration statement of which this proxy statement/prospectus/information statement is a part shall have been declared effective under the Securities Act of 1933, as amended, and no stop order suspending the effectiveness of the registration agreement shall have been issued and no proceedings for that purpose shall have been initiated or threatened by the SEC or any other governmental authority and no similar proceeding in respect of this proxy statement/prospectus/information statement shall have been initiated or threatened by the SEC or any governmental authority;
- the Pre-Closing Dividend shall have been declared and paid;
- the representations and warranties of the other party set forth in the Merger Agreement must be true and correct, except where a failure to be true and correct would not have a material adverse effect on the party making the representations and warranties; and
- the other party to the Merger Agreement must have complied with and performed in all material respects all of its covenants and obligations required by the Merger Agreement and provided a certificate to such effect.

The obligations of Targacept and Merger Sub to complete the merger are also subject to the satisfaction or waiver of the following conditions:

- there must not have occurred, since the date of the Merger Agreement, any material adverse effect on Catalyst and its subsidiaries that is continuing;
- the Catalyst preferred stock shall have been converted into Catalyst common stock;
- Catalyst and Targacept shall have agreed in writing on the calculation of Catalyst's net cash as of the closing, or an independent accountant shall have delivered its report with respect to the same, pursuant to the terms of the Merger Agreement and such Catalyst net cash amount shall be at least equal to $3,500,000; provided, however, such amount shall be reduced by $150,000 for each week after July 29, 2015 up to the effective time of the merger;
- Targacept shall have received the written consent approving the merger from Catalyst stockholders representing (i) at least 90% of the outstanding shares of Catalyst's capital stock voting together as a single class and on an as-converted basis and (ii) holders of at least 66 2/3% of the outstanding shares of Catalyst's preferred stock voting together as a single class, on an as-converted basis, which are referred to as "Catalyst's minimum holders"; and
- Lock-up agreements signed by the Catalyst's executive officers, directors and Catalyst's minimum holders shall have been delivered to Targacept and shall remain in full force and effect at the closing of the merger.

The obligations of Catalyst to complete the merger are also subject to the satisfaction or waiver of the following conditions:

- there must not have occurred, since the date of the Merger Agreement, any material adverse effect on Targacept and its subsidiaries that is continuing;
- Catalyst and Targacept shall have agreed in writing on the calculation of Targacept's net cash as of the closing, or an independent accountant shall have delivered its report with respect to the same, pursuant to the terms of the Merger Agreement and Targacept's net cash amount shall be at least equal to $72 million; and
- the shares of Targacept common stock to be issued in the merger pursuant to the Merger Agreement shall have been approved for listing on the NASDAQ Global Select Market or such other NASDAQ market on which shares of Targacept's common stock is then listed.

Termination of the Merger Agreement and Termination Fee

The Merger Agreement may be terminated at any time before the closing of the merger, whether before or after the required stockholder approvals to complete the merger have been obtained, as set forth below:

(a) by mutual written consent duly authorized by the board of directors of each of Catalyst and Targacept;

(b) by Catalyst or Targacept if the merger has not been completed by September 30, 2015 (in which case, if a Targacept competing proposal has been publicly announced or disclosed or otherwise communicated to Targacept's board of directors, Targacept has agreed to reimburse up to $1.25 million of Catalyst's fees and expenses); provided, that this right to terminate the Merger Agreement will not be available to any party whose action or failure to act has been a principal cause of the failure of the merger to be completed by such date and such action or failure to act constitutes a breach of the Merger Agreement; provided, however, that in the event this proxy statement/prospectus/information statement is still being reviewed or commented on by the SEC, either party will be entitled to extend the date for termination of the Merger Agreement for an additional sixty (60) days. In the event, however, that Catalyst has delivered a Closing Notice (as defined below) prior to the date on which the Merger Agreement is terminable pursuant to this termination right, Targacept may not terminate the Merger Agreement pursuant to this termination right for 12 business days following the date of delivery of such Closing Notice;

(c) by Catalyst or Targacept if a court or other governmental entity has issued a final and non-appealable order, decree or ruling or taken any other action that permanently restrains, enjoins or otherwise prohibits the merger;

(d) by Targacept if the stockholders of Catalyst have not given the requisite approval to complete the merger within 24 hours after Catalyst's receipt of written notice from Targacept that the registration statement on Form-S-4 has been declared effective under the Securities Act;

(e) by Catalyst or Targacept if (i) the meeting of the stockholders of Targacept (including any adjournments and postponements thereof) has been held and completed and Targacept's stockholders have taken a final vote on the proposals and (ii) the stockholders of Targacept have not given the requisite approval to complete the merger or any of the transactions contemplated by the Merger Agreement, including the reverse stock split (in which case, Targacept has agreed to reimburse up to $1.25 million of Catalyst's fees and expenses); provided, that this right to terminate the Merger Agreement will not be available to Targacept if failure to obtain the approval of the Targacept stockholders was caused by the action or failure to act of Targacept and such action or failure to act constitutes a breach by Targacept of the Merger Agreement;

(f) by Catalyst, at any time prior to the approval of the issuance of the shares of Targacept common stock pursuant to the merger, if:

- a change of recommendation by the board of directors and/or any committee of the board of directors of Targacept occurs;
- Targacept fails to include in this proxy statement/prospectus/information statement the recommendation of its board of directors;
- the board of directors of Targacept approves, endorses or recommends any competing proposal; or
- Targacept enters into any letter of intent or similar document or any contract relating to a competing proposal other than a confidentiality agreement permitted by the Merger Agreement;

(g) by Catalyst or Targacept if the other party has breached any of its representations, warranties, covenants or agreements contained in the Merger Agreement or if any representation or warranty of the other party has become inaccurate, in either case such that the conditions to the closing of the merger would not be satisfied as of time of such breach or inaccuracy; provided, however, that if such breach or inaccuracy is curable, then the Merger Agreement will not terminate as a result of a particular breach

or inaccuracy until the earlier of the expiration of a 30-day period after delivery of written notice of such breach or inaccuracy (and if terminated by Catalyst due to a Targacept breach, and a Targacept competing proposal has been publicly announced or disclosed or otherwise communicated to Targacept's board of directors, Targacept has agreed to reimburse up to $1.25 million of Catalyst's expenses) and the breaching party ceasing to exercise commercially reasonable efforts to cure such breach;

(h) by Targacept, at any time prior to the requisite approvals at the meeting of the stockholders of Targacept, in connection with Targacept entering into a definitive agreement to effect a superior competing proposal; provided, Targacept shall have complied with the terms of the Merger Agreement and that such termination shall not be effective until Targacept shall have paid a termination fee, described below, to Catalyst;

(i) by Catalyst, at any time prior to the requisite approvals by written consent of the Catalyst Stockholders, in connection with Catalyst entering into a definitive agreement to effect a superior competing proposal; provided, Catalyst shall have complied with the terms of the Merger Agreement and that such termination shall not be effective until Catalyst shall have paid a termination fee, described below, to Targacept;

(j) by Catalyst, if the projected Targacept cash balance is less than $72 million (in which case, Targacept has agreed to reimburse up to $1.25 million of Catalyst's fees and expenses); or

(k) by Catalyst, if all of the closing conditions have been satisfied or are capable of being satisfied as of the date of the Closing Notice other than the condition that the Pre-Closing Dividend shall have been declared and paid, (i) the Pre-Closing Dividend has not been paid, (ii) Catalyst sends written notice to Targacept that Catalyst is prepared to complete the merger, subject to the satisfaction or waiver of the conditions to closing on the closing date, which are referred to as the "Closing Notice," and (iii) the closing fails to occur within 10 business days after Targacept receives such Closing Notice.

Targacept shall pay to Catalyst a termination fee of $3.22 million if the Merger Agreement is terminated pursuant to clauses (f), (h) or (k) above.

Targacept shall also pay to Catalyst a termination fee of $3.22 million, less any of Catalyst's fees and expenses already paid up to $1.25 million, if the Merger Agreement is terminated pursuant to clauses (b), (e) or (g) above if (1) at any time before the Targacept stockholder meeting, a Targacept competing proposal is publicly announced, disclosed or otherwise communicated to Targacept's board of directors and (2) within 12 months of the date of termination of the Merger Agreement, Targacept enters into a definitive agreement with respect to, or completes a transaction contemplated by, a competing proposal.

Any termination of the Merger Agreement shall not relieve any party of liability for any willful and material breach of any representation, warranty, covenant, obligation or other provision contained in the Merger Agreement, provided, that in the event of any such breach by Targacept, the parties agreed that the damages to Catalyst from such breach shall be deemed to be $3.22 million of liquidated damages and not a penalty.

Catalyst shall pay to Targacept a termination fee of $2.275 million if the Merger Agreement is terminated pursuant to clauses (d) or (i) above.

Amendment

The Merger Agreement may be amended by an instrument in writing signed on behalf of each of Targacept and Catalyst with the approval of the respective boards of directors of Targacept and Catalyst at any time, except that after the Merger Agreement has been adopted by the stockholders of Targacept or Catalyst, no amendment which by law requires further approval by the stockholders of Targacept or Catalyst, as the case may be, shall be made without such further approval.

Expenses

The Merger Agreement provides all fees and expenses incurred in connection with the Merger Agreement and the transactions contemplated thereby shall be paid by the party incurring such expenses, except as described above under “Termination of the Merger Agreement and Termination Fee.”

AGREEMENTS RELATED TO THE MERGER

Voting Agreements

In connection with the execution of the Merger Agreement, Nassim Usman, Ph.D., the President and Chief Executive Officer and a director of Catalyst, as an individual and in his capacity as custodian and trustee of certain trusts, Edwin Madison, Ph.D., the Chief Scientific Officer of Catalyst, Harold Selick, Ralph Christoffersen, Gus Lawlor, and Michael Powell, each a director of Catalyst, Essex Woodlands Health Ventures Fund VIII, L.P., Essex Woodlands Health Ventures Fund VIII-A, L.P., Essex Woodlands Health Ventures Fund VIII-B, L.P., HealthCare Ventures VIII, L.P., Johnson & Johnson Innovation-JJDC, Inc., Mirae Asset Good Company Secondary Fund, Mirae Asset Securities Co., Ltd., Mirae Asset Venture Investment Co., Ltd., Morgenthaler Partners VIII, L.P., Rosetta Capital V LP, and Sofinnova Venture Partners VI, L.P. entered into voting agreements with Targacept and Catalyst under which such stockholders have agreed to vote in favor of the merger and against any alternative acquisition proposal, agreement or transaction. As of May 15, 2015, these entities collectively beneficially own or control approximately 84% of the voting power of Catalyst on an as-converted to common stock basis and 89% of the voting power of Catalyst preferred stock on an as-converted to common stock basis. These voting agreements grant Targacept irrevocable proxies to vote any shares of Catalyst stock over which such stockholder has voting power in favor of each of the Catalyst proposals described elsewhere in this proxy statement/prospectus/information statement and against any alternative acquisition proposal, agreement or transaction.

In connection with the execution of the Merger Agreement, current directors and officers of Targacept, including Stephen A. Hill, the President and Chief Executive Officer and a director of Targacept, Mauri K. Hodges, the interim Chief Financial Officer of Targacept, Patrick C. Rock, a Senior Vice President and General Counsel of Targacept and Charles A. Blixt, Julia R. Brown, Errol B. DeSouza, Alan W. Dunton, and John P. Richard each a director of Targacept, Biotechnology Value Fund, L.P., Biotechnology Value Fund II, L.P., BVF Investments, L.L.C., Investment 10, L.L.C., MSI BVF SPV, LLC, New Enterprise Associates 10, Limited Partnership, NEA Ventures 2002, L.P., RTW Investments, LLC, RTW Master Fund, Ltd. and Roderick Wong who collectively beneficially own or control approximately 41% of Targacept's outstanding common stock as of May 15, 2015, also entered into voting agreements with Targacept and Catalyst under which such stockholder has agreed to vote in favor of the Targacept proposals that relate to the merger and against any alternative acquisition proposal, agreement or transaction. Each of these voting agreements grant Catalyst irrevocable proxies to vote any shares of Targacept stock over which such stockholder has voting power in favor of each of the Targacept proposals described elsewhere in this proxy statement/prospectus/information statement and against any alternative acquisition proposal, agreement or transaction.

Each stockholder executing a voting agreement has made representations and warranties to Targacept and Catalyst regarding ownership and unencumbered title to the shares thereto, such stockholder's power and authority to execute the voting agreement, and due execution and enforceability of the voting agreement. Unless otherwise waived, all of these voting agreements prohibit the sale, assignment, transfer or other disposition by the stockholder of their respective shares of Targacept or Catalyst stock, or the entrance into an agreement or commitment to do any of the foregoing, except for transfers by will or by operation of law, in which case the voting agreement shall bind the transferee. Each stockholder of Catalyst executing a voting agreement has also waived its statutory appraisal rights in connection with the merger.

The voting agreements will terminate at the earlier of the effective time of the merger, termination of the Merger Agreement in accordance with its terms or upon mutual written consent of such stockholder, Targacept and Catalyst.

Lock-up Agreements

As a condition to the closing of the merger, the Catalyst securityholders who entered into voting agreements in connection with the execution of the Merger Agreement, as described in the section "Agreements Related to the

Merger—Voting Agreements" above, also entered into lock-up agreements, pursuant to which such parties have agreed not to, except in limited circumstances, sell or transfer, or engage in swap or similar transactions with respect to, shares of Catalyst capital stock, stock options and warrants, including, as applicable, shares received in the merger and issuable upon exercise of certain warrants and options, from the effective date of the merger until 120 days after the closing date of the merger.

As of July 15, 2015, the Catalyst stockholders who have executed lock-up agreements beneficially held in the aggregate 105,770,656 shares of Catalyst common and preferred stock, on an as-converted to common stock basis.

Pre-Closing Dividend

Overview

Prior to the closing of the merger but following such time as a determination of the net cash of Targacept has been made, Targacept plans to declare a dividend, pro rata to its stockholders as of the record date for such dividend. Such dividend will consist of $37.0 million in aggregate principal amount of redeemable convertible notes and approximately $19.0 million in cash. We refer to this collectively as the Pre-Closing Dividend. At the option of the noteholders, the notes will be redeemable at any time within 30 months of the closing of the merger or convertible within 30 months after closing into shares of common stock at a conversion rate of $9.19 per share, which represents 130% of the negotiated per-share value of Targacept's assets following the anticipated Pre-Closing Dividend, as adjusted to reflect the planned 7-for-1 reverse stock split described elsewhere in this proxy statement/prospectus/information statement. For more information, please see the section entitled "Description of the Convertible Notes" beginning on page 294.

Calculation of Net Cash

As described in the section above entitled "—Pre-Closing Dividend Overview," Targacept stockholders will be entitled to receive in connection with the Pre-Closing Dividend the excess, if any, of the amount of Targacept's cash balance (as defined in the Merger Agreement) over $72.0 million (the sum of $35.0 million cash from Targacept remaining in the combined company and $37.0 million in aggregate principle amount of redeemable convertible notes).

Pursuant to the Merger Agreement, Targacept's cash balance will consist of (A) the cash and cash equivalents of Targacept minus (B) the sum of (i) any unpaid transaction expenses as of the effective time of the merger and (ii) net costs of Targacept with respect to any disposition of any or all NNR Assets and liabilities relating thereto and any unpaid post-closing liabilities or obligations relating to Targacept's pre-closing business operations.

To estimate the amount of the cash distributable to Targacept stockholders in connection with the Pre-Closing Dividend, Targacept's management performed an analysis of the expected cash balance amount as of [●], 2015. This analysis resulted in an estimate of approximately $19.0 million of cash distributable to Targacept stockholders.

Uncertainties are inherent in estimating Targacept's cash balance position, including many risk factors beyond Targacept's control. Accordingly, the ultimate amount of cash distributable to Targacept stockholders in connection with the Pre-Closing Dividend may vary from the foregoing estimate.

Timing of the Pre-Closing Dividend

On the date which is at least 15 days prior to the anticipated closing date, Targacept shall determine an estimated calculation of Targacept's cash balance as of the anticipated closing date and shall deliver such calculation to Catalyst. In the event that Catalyst disputes such calculation, the parties are obligated to engage in good faith negotiations to resolve such disputes and to thereafter submit any unresolved disputes to an independent auditor of recognized national standing for final determination. Promptly following the final determination of Targacept's cash balance, and in any event, prior to the closing of the merger, Targacept shall take all actions reasonably necessary to make the Pre-Closing Dividend.

TARGACEPT DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The following table sets forth certain information concerning Targacept's executive officers and directors as of May 15, 2015:

Name	Age	Position
Executive Officers		
Stephen A. Hill, M.D.	57	President & Chief Executive Officer; Class II Director
Mauri K. Hodges, C.P.A., C.C.P	58	Vice President, Finance and Administration, Chief Financial Officer and Treasurer
Patrick C. Rock, J.D.	56	Senior Vice President, General Counsel and Secretary
Non-Employee Directors		
Charles A. Blixt	63	Class I Director
Julia R. Brown	68	Class II Director
Errol B. De Souza	61	Class III Director
Alan W. Dunton, M.D.	61	Class I Director
John P. Richard	57	Chairman of the Board; Class II Director

Executive Officers

Dr. Stephen A. Hill has served as President and Chief Executive Officer and a member of the board of directors of Targacept since December 2012. From May 2012 to November 2012, Dr. Hill served as president and chief executive officer of QUE Oncology, a start-up biotechnology company, and, from March 2011 to December 2011, he served as president and chief executive officer of 21st Century Biodefense, Inc., a biodefense company. From April 2008 until its acquisition in December 2010, he served as president and chief executive officer of Solvay Pharmaceuticals, Inc., a pharmaceutical company. Prior to Solvay, he served as president, chief executive officer and director of ArQule, Inc., a pharmaceutical company, from April 1999 to March 2008. Dr. Hill is a member of the board of directors of the publicly traded companies Cellectar Biosciences, Inc. (formerly Novelos Therapeutics, Inc.) and Lipocine, Inc. Dr. Hill's service as a director enables the board of directors to perform its responsibilities with the direct benefit of management's perspectives. In addition, he brings to the board of directors extensive experience across a range of senior management positions with both pharmaceutical and biotechnology companies. Prior to Solvay and ArQule, Dr. Hill held several leadership positions with F. Hoffmann-La Roche Ltd., including Global Head of Clinical Development, and served for seven years with the National Health Service in the United Kingdom in General and Orthopedic Surgery. Dr. Hill's role as Targacept's chief executive, together with his breadth of experience, make him uniquely suited to serve on the board of directors.

Mauri K. Hodges, C.P.A., C.C.P. has been Targacept's Vice President, Finance and Administration, Chief Financial Officer and Treasurer since December 2014. From July 2014 to November 2014, she was Targacept's Vice President of Human Resources and served as Vice President, Finance and Corporate Systems and Controller from 2007 to June 2014.

Patrick C. Rock, J.D. joined Targacept in August 2013 and became Targacept's Senior Vice President, General Counsel and Secretary effective October 1, 2013. From April 2009 to December 2011, he served as vice president and general counsel to 21st Century Biodefense, Inc., a biodefense company. From January 2012 to August 2013, Mr. Rock maintained his own legal practice counseling multinational pharmaceutical and energy industry clients.

Non-Employee Directors

Charles A. Blixt has been a member of the board of directors since August 2000. From October 2007 to December 2010, Mr. Blixt was a senior adviser to Jones Day, a law firm. Previously, he worked for more than 20 years in legal positions of increasing responsibility, including executive vice president and general counsel, of

R.J. Reynolds Tobacco Company or its affiliated companies. Mr. Blixt is a member of the board of directors of the publicly-traded company Krispy Kreme Doughnuts, Inc. Within the past five years, he served as a member of the board of directors of the publicly-traded company Swedish Match AB.

Mr. Blixt brings to the board of directors extensive legal, policy, corporate development and business experience. In particular, his experience gained over many years as general counsel of a Fortune 100 consumer products company serves to supplement and diversify the emerging growth and life science backgrounds of the other members of the board of directors and provides the board of directors with a unique and valuable perspective. In addition, Mr. Blixt's legal background helps the board of directors promote strong corporate governance practices.

Julia R. Brown has been a member of the board of directors since November, 2007. She has held a variety of executive positions over her career in the pharmaceutical industry. Ms. Brown served as executive vice president of Amylin Pharmaceuticals, Inc. from 2000-2003 and as advisor to the CEO until 2008. Prior to joining Amylin, she was executive vice president of Dura Pharmaceuticals, Inc. Ms. Brown spent over 25 years with Eli Lilly and Company in progressively more senior roles including vice president of IVAC Corporation and general manager of its Vital Signs Division and vice president of Worldwide Marketing for Hybritech. She currently serves on the board of directors of Biodel, Inc. and Cleveland Biolabs, Inc., both publicly-traded, development stage pharmaceutical companies. She is compensation committee chair and a member of the nominating and governance committee of both companies. Ms. Brown previously served on the boards of five other development stage pharmaceutical companies, including the publicly-traded company Labopharm, Inc. (acquired by Paladin Labs Inc.) from 2007 to 2011. She is chairman of the Corporate Directors Forum and is a member of the National Association of Corporate Directors and Women Corporate Directors. Ms. Brown is a trustee and chair emerita of the University of California San Diego Foundation and is a member of the board of two industry associations.

Ms. Brown's qualifications to serve on the board of directors include her extensive experience in the pharmaceutical industry, particularly with development stage companies, and her substantial involvement in organizations dedicated to fostering high standards of professionalism in corporate governance.

Errol B. De Souza, Ph.D. has been a member of the board of directors of Targacept since January 2004. Since March 2010, Dr. De Souza has been president and chief executive officer of Biodel Inc., a specialty pharmaceutical company. From April 2009 to March 2010, Dr. De Souza was a pharmaceutical and biotechnology consultant. From April 2003 to March 2009, he served as president and chief executive officer of Archemix Corporation, a privately held biopharmaceutical company. Dr. De Souza currently serves as a member of the board of directors of each of the publicly traded companies Biodel Inc. and Bionomics Ltd. Within the past five years, he served on the board of directors of each of the publicly-traded companies IDEXX Laboratories, Inc. and Palatin Technologies, Inc. Dr. De Souza brings to the board of directors substantial experience as an executive in the pharmaceutical industry, having served as president and chief executive officer of Synaptic Pharmaceutical Corp. until its sale to H. Lundbeck A/S, in addition to Biodel and Archemix. Over Dr. De Souza's career, he has also served in a number of high-ranking research and development roles, including senior vice president and head of global lead generation for Hoechst Marion Roussel and senior vice president and U.S. head of drug innovation and approval following that company's merger with Rhône-Poulenc to form Aventis (now Sanofi-Aventis) and co-founder and executive vice president of research and development at Neurocrine Biosciences, Inc.

These experiences, together with his service as a director for other biopharmaceutical companies, enable Dr. De Souza to contribute valuable insight to the board of directors regarding pharmaceutical portfolio development and management from both large company and emerging company perspectives.

Alan W. Dunton, M.D. has been a member of the board of directors since October 2006. Since April 2006, he has been the principal of Danerius, LLC, a consulting company. From January 2007 to March 2009, Dr. Dunton served as president and chief executive officer of Panacos Pharmaceuticals Inc., and he served as a managing

director of Panacos from March 2009 to January 2011. Dr. Dunton is a member of the board of directors of each of the publicly-traded companies Oragenics, Inc. and Palatin Technologies, Inc. Within the past five years, he served on the board of directors of each of the publicly-traded companies Adams Respiratory Therapeutics, Inc. (acquired by Reckitt Benckiser Group plc) and MediciNova, Inc. and the formerly publicly-traded company Panacos Pharmaceuticals, Inc. In addition, he was chairman of EpiCept Corporation which merged with Immune Pharmaceuticals in 2013. He is also currently a director of Sancilio & Company, a privately held pharmaceutical company.

Dr. Dunton brings to the board of directors substantial drug development and clinical research experience. Over his almost three decade career in the pharmaceutical industry, Dr. Dunton has played a key role in the development of more than 20 products to regulatory approval, including several successful neuroscience products. In addition, his experience and training as a physician and fellowship in clinical pharmacology enable him to bring valuable insight to the board of directors.

John P. Richard has been a member of the board of directors of Targacept since November 2002, and has served as Chairman since January 2014. Mr. Richard is an operating partner at the life science investment firm Phase4 Partners (formerly Nomura Phase4 Ventures), and has served as a non-executive director for Phase4 since March 2011 and as a venture partner since 2008. Since 2005 he has also been a managing director of Georgia Venture Partners, a seed venture capital firm that focuses on the biotechnology industry. In addition, Mr. Richard currently serves and from time to time during at least the past five years has served as a consultant to Phase4 Partners (or its predecessor) and certain of its portfolio companies, and to portfolio companies of Georgia Venture Partners. Mr. Richard has been a director of the publicly-traded company Biota Pharmaceuticals, Inc. since August 2013.

Mr. Richard brings to the board of directors extensive business development experience, having led that function at three separate life science companies and played a primary role in establishing numerous pharmaceutical alliances. In addition, the breadth of Mr. Richard's current roles enables him to view issues that Targacept faces from a variety of perspectives, including as an executive, investor, director and business development professional.

Corporate Governance

Board Leadership Structure

The Targacept board of directors and each of its committees are chaired by directors whom the board of directors has determined meet the listing standards of The NASDAQ Stock Market LLC, or NASDAQ.

The roles of Chief Executive Officer and Chairman of the Board of Directors have been held by separate individuals since Targacept became an independent company in 2000. This separation of roles enables Targacept's Chief Executive Officer to focus on his core responsibility of leading and managing Targacept's operations and day-to-day performance, consistent with strategic direction provided by the board of directors, and Targacept's Chairman of the Board to focus on leading the board of directors of Targacept in its fundamental role of providing guidance to, and independent oversight of, Targacept's management. In addition, this separation provides an opportunity for consistent leadership, as the individual that fills either role could assume the duties of the other role on a temporary basis if the need were to arise.

Director Independence

NASDAQ's listing standards and Targacept's Corporate Governance Guidelines require that the board of directors consist of a majority of independent directors, as determined under the applicable NASDAQ listing standard. The Targacept board of directors, consistent with the determination of its Governance and Nominating Committee, has determined that each of Mr. Richard, Mr. Blixt, Ms. Brown, Dr. De Souza and Dr. Dunton qualifies as an independent director.

For purposes of qualifying as independent to serve on the Audit Committee of the board of directors, applicable NASDAQ listing standards and rules of the SEC require that a director not accept any consulting, advisory, or other compensatory fee from Targacept, other than for board of directors service, or be an affiliated person of Targacept. For purposes of qualifying as independent to serve on the Compensation Committee of the board of directors, applicable NASDAQ listing standards require that a director not accept any consulting, advisory, or other compensatory fee from Targacept, other than for board of directors service, and that the board of directors consider whether a director is affiliated with Targacept and, if so, whether the affiliation would impair the director's judgment as a member of the Compensation Committee. The board of directors has considered these requirements and believes they are satisfied by all of the members of Targacept's Audit Committee and all of the members of Targacept's Compensation Committee.

The Board and its Committees

Targacept's bylaws provide that the Targacept board of directors shall consist of not less than 3 or more than 13 directors, as fixed from time to time in accordance with Targacept's certificate of incorporation. Targacept's certificate of incorporation provides that the number of directors shall be fixed from time to time exclusively by the board of directors. The board of directors has fixed the number of directors at 7. The board of directors is divided into three classes, with one class to be elected at each Targacept annual stockholders meeting to serve for a three-year term. The term of Targacept's Class I directors expires at the 2016 annual stockholders meeting; the term of Targacept's Class II directors expires at the 2017 annual stockholders meeting; and the term of Targacept's Class III directors expires at the 2015 annual stockholders meeting; in each case with each director to hold office until his or her successor is duly elected and qualified or until his or her earlier death, retirement, resignation or removal. Targacept's directors are divided among the three classes as follows:

Class	Director(s)	Term Expiration
I	Charles A. Blixt and Alan W. Dunton, M.D.	2016
II	Julia R. Brown, Stephen A. Hill, M.D. and John P. Richard	2017
III*	Errol B. De Souza, Ph.D.	2015

* One Class III seat has been vacant since the resignation of Targacept's former Chairman, Mark Skaletsky, in November 2013.

In 2014, the board of directors met eight times. Each of Targacept's directors attended at least 75% of the aggregate number of meetings of the board of directors and the committees on which he or she served. Targacept's Corporate Governance Guidelines provide that Targacept's directors are also expected to attend annual stockholders meetings. All of Targacept's directors attended the 2014 Targacept annual stockholders meeting.

The board of directors has the following standing committees: Governance and Nominating, Audit, Compensation, and Technology and Innovation. A brief description of these committees and their current memberships follows.

Governance and Nominating Committee

The current members of the Governance and Nominating Committee are Mr. Blixt, Ms. Brown and Dr. De Souza, with Dr. De Souza serving as Chairman. In 2014, the Governance and Nominating Committee met three times. You can find the Governance and Nominating Committee charter on the "Investor Relations" page of Targacept's website, www.targacept.com, under the "Corporate Governance" tab. Specific responsibilities of the Governance and Nominating Committee include:

- identifying individuals qualified to serve as directors and committee members, recommending to the Targacept board of directors nominees for election at Targacept's annual stockholders meetings and recommending to the board of directors individuals to fill vacancies on the board of directors;

- making recommendations to the board of directors concerning the criteria for membership on the board of directors and the size, composition, chairmanship and compensation of the board of directors and its committees;
- considering whether and how it takes into account diversity in identifying nominees;
- monitoring and making recommendations to the board of directors regarding corporate governance matters;
- advising the board of directors on corporate governance matters generally;
- conducting an annual review of the performance of the board of directors and its committees; and
- periodically evaluating and making recommendations to the board of directors concerning the compensation of non-employee directors.

Our non-employee director compensation program, including the roles of members of Targacept's executive management team and outside compensation consultants in assisting with establishing non-employee director compensation, is discussed below under "Executive Compensation—Compensation of Directors."

The objective of the Governance and Nominating Committee is that the backgrounds and qualifications of the directors as a group provide a significant breadth and diversity of experience, knowledge and abilities. In considering whether to recommend any particular candidate for inclusion in the board of directors' slate of recommended nominees, the Governance and Nominating Committee applies certain criteria found in Targacept's Corporate Governance Guidelines. In particular, each nominee should possess:

- a reputation for integrity, honesty and adherence to high ethical standards;
- sound judgment and a willingness and ability to contribute positively to decision-making processes;
- a commitment to understand Targacept and Targacept's industry and to regularly attend and participate in meetings of the board of directors and, as applicable, its committees;
- the interest and ability to understand sometimes conflicting interests of various constituencies, such as stockholders, employees, governmental or regulatory bodies, creditors and the general public, and to act in the interests of all stockholders; and
- no actual or apparent conflict of interest that would impair the ability to represent the interests of all stockholders and to fulfill the responsibilities of a director.

The Governance and Nominating Committee does not assign specific weights to particular criteria, and no particular criterion is a prerequisite for a nominee.

The Governance and Nominating Committee recommends to the board of directors individuals to be nominated for election as directors. In considering an incumbent director as a nominee, the Governance and Nominating Committee considers his or her prior contributions to the functioning of the Targacept board of directors and, as applicable, its committees. The Governance and Nominating Committee may also receive recommendations for nominees from members of the board of directors or management and may from time to time engage a third-party search firm to help identify potential nominees. If a candidate is identified, the Governance and Nominating Committee evaluates his or her qualifications and other biographical information, taking into account the backgrounds and qualifications of the continuing members of the board of directors and the criteria included in Targacept's Corporate Governance Guidelines. Members of the Governance and Nominating Committee and Targacept's Chief Executive Officer then interview the candidate or, if multiple candidates are identified, select candidates. Following discussion of the candidates identified and evaluated, the Governance and Nominating Committee recommends to the board of directors a list of nominees for election.

Audit Committee

The current members of the Audit Committee are Mr. Blixt, Dr. De Souza and Mr. Richard, with Mr. Blixt serving as chairman. The Targacept board of directors has determined that Mr. Richard is an "audit committee financial expert" as defined in Item 407(d)(5) of Regulation S-K.

In 2014, the Audit Committee met seven times. You can find the Audit Committee charter on the "Investor Relations" page of Targacept's website, www.targacept.com, under the "Corporate Governance" tab. The Audit Committee assists the board of directors in its oversight of Targacept's accounting, financial reporting and internal control functions. Some of the specific responsibilities of the Audit Committee include:

- the appointment, compensation, retention and oversight of any independent registered public accounting firm that Targacept engages to issue an audit report, or to perform other audit, review or attest services, for Targacept's financial statements, and evaluating auditor independence;
- receiving and reviewing reports of management and the independent registered public accounting firm regarding the annual audit process, as well as the review process for Targacept's interim financial statements;
- reviewing with management significant accounting issues, policies relating to Targacept's financial statements and Targacept's cash management program;
- discussing with management and the independent registered public accounting firm Targacept's exposure to material risks and the adequacy of Targacept's risk management activities;
- reviewing management's assessment of the effectiveness of, and Targacept's independent registered public accounting firm's report on, Targacept's internal control over financial reporting;
- approving, to the extent required by applicable law or NASDAQ listing standards or by Targacept's related person transactions policy, related person transactions;
- establishing procedures for the receipt, retention and treatment of complaints regarding accounting, internal accounting controls or auditing matters;
- responding to any report of evidence of a material violation of the securities laws or breach of fiduciary duty that it receives; and
- preparing the report of the audit committee required by applicable SEC rules to be included in Targacept's annual proxy statement.

Compensation Committee

The current members of the Compensation Committee are Ms. Brown, Dr. Dunton and Mr. Richard, with Ms. Brown serving as chairperson. In 2014, the Compensation Committee met six times. You can find the Compensation Committee charter on the "Investor Relations" page of Targacept's website, www.targacept.com, under the "Corporate Governance" tab. Some of the specific responsibilities of the Compensation Committee include:

- reviewing periodically Targacept's compensation philosophy and the adequacy of compensation plans and programs for Targacept's executive officers and other employees;
- the appointment, compensation and oversight of any compensation expert, legal counsel or other adviser that the Compensation Committee determines to engage and the consideration of factors relevant to such expert's, counsel's or adviser's independence;
- reviewing the performance of Targacept's Chief Executive Officer and establishing the compensation of all of Targacept's executive officers;
- approving employment, severance and change in control agreements, and any amendments, for Targacept's executive officers;

- administering Targacept's 2006 Stock Incentive Plan and any other stock-based plans, as well as other employee benefit and incentive plans;
- assessing annually any risks associated with Targacept's compensation policies and practices;
- reviewing and discussing with management Targacept's Compensation Discussion and Analysis disclosure and formally recommending to the board of directors that it be included in Targacept's annual report on Form 10-K (either directly or by incorporation by reference to Targacept's annual proxy statement);
- making a recommendation to the board of directors with respect to the board of directors' recommendation to Targacept's stockholders on any proposal that Targacept's stockholders approve the compensation of Targacept's named executive officers on an advisory basis;
- making a recommendation to the board of directors, at least once every six years, whether to submit the compensation of Targacept's named executive officers to an advisory vote of Targacept's stockholders every one, two or three years; and
- preparing the report of the Compensation Committee required by applicable SEC rules to be included in Targacept's annual report on Form 10-K (either directly or by incorporation by reference to Targacept's annual proxy statement).

The Compensation Committee consults regularly with Targacept's Chief Executive Officer regarding Targacept's executive compensation program. Targacept's executive compensation program, including the role of members of Targacept's executive management team and outside compensation consultants in assisting with establishing compensation, is discussed below under "Executive Compensation—Compensation Discussion and Analysis."

The Compensation Committee has the discretion to delegate any of its authority to a subcommittee. In addition, the board of directors has delegated to Dr. Hill, as Chief Executive Officer, the authority to grant stock options under Targacept's 2006 Stock Incentive Plan, subject to limits and other conditions specified by the board of directors or the Compensation Committee, the terms of that plan and applicable law. In particular, Dr. Hill does not have the authority to grant stock options to the members of Targacept's executive management committee.

Compensation Committee Interlocks and Insider Participation

None of the directors who served on Targacept's Compensation Committee during 2014, Ms. Brown, Dr. Dunton, or Mr. Richard, was an officer within the meaning of Rule 3b-2 under the Securities Exchange Act of 1934, or the "*1934 Act*," or employee of Targacept's during or prior to fiscal 2014 or had any relationship during fiscal 2014 that would be required to be disclosed pursuant to Item 404 of Regulation S-K. None of Targacept's executive officers served during fiscal 2014 as a member of the board of directors or compensation committee, or other committee serving an equivalent function, of any entity that has an executive officer who serves on the Targacept board of directors or Compensation Committee.

Technology and Innovation Committee

The current members of the Technology and Innovation Committee are Dr. De Souza and Dr. Dunton. In 2014, the Technology and Innovation Committee met three times. You can find the Technology and Innovation Committee charter on the "Investor Relations" page of Targacept's website, www.targacept.com, under the "Corporate Governance" tab. Specific responsibilities of the Technology and Innovation Committee include:

- assessing information provided by management regarding Targacept's research and development activities, initiatives and programs and periodically reporting to the Targacept board of directors on such matters;
- reviewing periodically and reporting to the Targacept board of directors on Targacept's research and development strategies; and

- discussing and reporting to the board of directors on significant emerging technology issues and trends relevant to Targacept's areas of scientific or therapeutic focus.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the 1934 Act requires Targacept's directors and executive officers and the holders of more than 10% of Targacept's common stock to file with the SEC initial reports of ownership of Targacept's common stock and other equity securities on a Form 3 and reports of changes in such ownership on a Form 4 or Form 5. Officers, directors and more than 10% stockholders are required by SEC rules to provide Targacept with copies of all Section 16(a) forms they file. Based solely upon a review of the copies of such forms furnished to Targacept for the year ended December 31, 2014, and information provided to Targacept by Targacept's directors and executive officers required to file the reports, Targacept believes that all forms required by Section 16(a) to be filed in 2014 were filed on a timely basis.

The Board's Role in Risk Oversight

The Targacept board of directors is involved in risk oversight in multiple ways. For example, in determining whether and under what circumstances Targacept would engage in financing transactions or enter into strategic alliances and collaborations, the board of directors is involved in Targacept's management of risks related to Targacept's financial condition or of the risks inherent in drug development and commercialization. In addition, the board of directors routinely receives at its meetings business updates from various members of management. These updates may identify matters that have emerged within that member of management's scope of responsibility that involve operational, financial, legal or regulatory risks and, in these cases, the board of directors' risk oversight role is to provide guidance to management.

The board of directors also exercises a risk oversight role through its committees, each of which is structured to include only independent directors and is separately chaired. Each committee provides regular reports of its actions to the full board of directors. In particular, as noted above, the Audit Committee is responsible for discussing Targacept's exposure to material risks and the adequacy of its risk management activities with management and its independent registered public accounting firm. The Audit Committee's primary emphasis is financial risk, including Targacept's internal control over financial reporting, and it reviews information received from Targacept's independent registered public accounting firm as to the effectiveness of Targacept's internal control over financial reporting and from other third parties in support of management's assessment of the effectiveness of Targacept's internal control over financial reporting. The Audit Committee also oversees Targacept's management of exposure to certain financial risks through its periodic review of Targacept's investment policy and the allocation of Targacept's investment portfolio. Additionally, the Audit Committee seeks assurance from Targacept's insurance broker periodically that it considers Targacept's various insurance coverages, including clinical trial-related insurance, to be appropriate and generally consistent with its other clients in Targacept's industry with similar profiles. Beyond the Audit Committee, the Compensation Committee is responsible for considering whether Targacept's compensation programs and practices are reasonably likely to have a material adverse effect on Targacept.

Corporate Governance Guidelines

The Targacept board of directors has adopted Corporate Governance Guidelines that address a number of matters applicable to directors, including, as examples, independence, qualification standards, compensation, conduct and frequency of meetings, executive sessions and management evaluation and succession. You can find Targacept's Corporate Governance Guidelines on the "Investor Relations" page of its website, www.targacept.com, under the "Corporate Governance" tab.

Code of Business Conduct and Ethics

The Targacept board of directors has also adopted a Code of Business Conduct and Ethics applicable to all Targacept personnel, including Targacept's directors and executive officers. The Code of Business Conduct and Ethics is designed, among other things, to reflect Targacept's commitment to fair and ethical conduct and compliance with law. You can find the Code of Business Conduct and Ethics on the "Investor Relations" page of Targacept's website, www.targacept.com, under the "Corporate Governance" tab. To the extent permissible under applicable law, the rules of the SEC or NASDAQ listing standards, Targacept also intends to post on Targacept's website any amendment to the Code of Business Conduct and Ethics, or any grant of a waiver from a provision of the Code of Business Conduct and Ethics, that requires disclosure under applicable law, SEC rules or NASDAQ listing standards.

TARGACEPT EXECUTIVE COMPENSATION

Compensation of Directors

Under Targacept's non-employee director compensation program as in effect for fiscal 2014:

- each non-employee director who is first elected or appointed to the Targacept board of directors receives a nonqualified option to purchase 25,000 shares of common stock on the fifth business day after his or her election or appointment (an "*Initial Option*");
- each non-employee director who is first elected or appointed as Chairman of the Targacept board of directors receives an additional Initial Option to purchase 10,000 shares of common stock on the fifth business day after his or her election or appointment;
- each non-employee director receives on an annual basis a nonqualified option to purchase 12,500 shares of common stock or, in the case of the Chairman of the Targacept board of directors, an option to purchase 17,500 shares of common stock (an "*Annual Option*");
- each non-employee director receives an annual cash retainer of $35,000 payable in quarterly installments ($55,000 in the case of the Chairman of the Targacept board of directors); and
- each member of the Audit Committee receives an additional annual cash retainer of $10,000 ($20,000 in the case of the chairman of the committee); each member of the Compensation Committee receives an additional annual cash retainer of $7,500 ($15,000 in the case of the chairman of the committee); and each member of the Governance and Nominating Committee and each member of the Technology and Innovation Committee receives an additional annual cash retainer of $5,000 ($10,000 in the case of the chairman of each committee).

Each Initial Option vests and becomes exercisable (i) with respect to one-third of the shares subject to the Initial Option, on the earlier of the first anniversary of the grant date or the last business day before the annual stockholders meeting that occurs in the next calendar year, provided that the recipient director remains in service on the vesting date, and (ii) with respect to the remaining two-thirds of the shares subject to the Initial Option, on a pro rata quarterly basis over the next two years, if the recipient director remains in service as a director during such periods.

Each Annual Option is granted on the fifth business day after the date of the stockholders meeting at which directors are elected, if the recipient director remains in service as a director as of the grant date, and vests and becomes exercisable in full on the earlier of the first anniversary of the grant date or the last business day before the annual stockholders meeting that occurs in the next calendar year, if the recipient director remains in service as a director on the vesting date.

The exercise price per share for both Initial Options and Annual Options is equal to the fair market value of Targacept's common stock on the date the option is granted, as determined in accordance with the 2006 Stock Incentive Plan (or any successor plan). The "option period" for both Initial Options and Annual Options is 10 years. The post-termination exercise periods for both outstanding and future non-employee director options, to the extent vested as of the director's termination date, is the earlier of the third anniversary of the director's termination date or the end of the option period (unless the director was terminated for cause, in which case the option would terminate as of the director's termination date). Unvested options continue to be forfeited as of the director's termination date.

Process for Determining Director Compensation

The Governance and Nominating Committee periodically engages a third-party consultant to assemble director compensation data for Targacept's then-current peer group to evaluate the competitiveness of its non-employee director compensation program. Based on the findings, the Governance and Nominating Committee considers whether to recommend that the Targacept board of directors modify its non-employee director compensation program.

2014 Director Compensation Table

The following table contains information regarding total compensation paid to members of the Targacept board of directors (other than Dr. Hill) for service in the fiscal year ended December 31, 2014. For information regarding compensation paid to Dr. Hill, see the "Summary Compensation Table" on page 165.

Name	Fees Earned or Paid in Cash ($)	Option Awards ($)(1)	Restricted Stock ($)(3)	Total ($)
Charles A. Blixt	60,000	44,125	24,700	128,825
Julia R. Brown	55,000	44,125	24,700	123,825
Errol B. De Souza	60,000	44,125	24,700	128,825
Alan W. Dunton	52,500	44,125	24,700	121,325
John P. Richard(2)	72,500	97,275	24,700	194,475

(1) The amounts in this column reflect the aggregate grant date fair value of stock options granted during fiscal 2014 calculated in accordance with ASC 718, disregarding the potential for forfeitures. The assumptions that Targacept used to calculate these amounts are discussed in Note 9 to its audited financial statements included elsewhere in this proxy statement/prospectus/information statement. All of these stock options were granted on June 12, 2014 at an exercise price of $4.29 per share, the closing price of Targacept's common stock on the NASDAQ Global Select Market on the grant date, with the exception of Mr. Richard (see note (3)).

(2) On January 8, 2014 Mr. Richard was granted an option to purchase 10,000 shares of Targacept's common stock with an exercise price of $4.31 per share, the closing price of its common stock on the NASDAQ Global Select Market on the grant date. This grant was in accordance with the terms of Targacept's 2006 Plan following his appointment as Chairman of the Board and is scheduled to vest quarterly beginning March 31, 2014 and vesting in full on January 8, 2017.

(3) The amounts in this column reflect the aggregate grant date fair value of restricted stock granted during fiscal 2014 calculated in accordance with ASC 718, disregarding the potential for forfeitures. The assumptions used to calculate these amounts are discussed in Note 9 to Targacept's audited financial statements included in this proxy statement/prospectus/information statement. All of these restricted stock awards were made on December 11, 2014. The closing price of Targacept's common stock on the NASDAQ Global Select Market on the award date was $2.47.

Outstanding Equity as of December 31, 2014

The table below sets forth the aggregate number of shares underlying outstanding stock options held as of December 31, 2014 by individuals who served on the Targacept board of directors during fiscal 2014.

Name	Stock Options
Charles A. Blixt	70,000
Julia R. Brown	53,400
Errol B. De Souza	85,000
Alan W. Dunton	72,000
John P. Richard(1)	65,000

(1) In 2013, Mr. Richard was elected non-executive Chairman of the Targacept board of directors effective January 1, 2014. In connection with his appointment, and in accordance with the 2006 Plan and its non-employee director compensation program as described starting on page 148, Mr. Richard received on January 8, 2014 an Initial Option to purchase 10,000 shares of its common stock.

Compensation Discussion and Analysis

The Compensation Discussion and Analysis, or CD&A, explains the key elements of Targacept's executive compensation program and compensation decisions for its named executive officers, which it refers to as NEOs.

The Compensation Committee of Targacept's board of directors, with input from its independent compensation consultant and its President and Chief Executive Officer, oversees this program and determines compensation for its NEOs.

For the fiscal year ended December 31, 2014, Targacept's NEOs are:

Stephen A. Hill	President and Chief Executive Officer
Alan A. Musso	Former Senior Vice President, Finance and Administration, Chief Financial Officer and Treasurer (resigned in 2014)
Mauri K. Hodges	Vice President, Finance and Administration, Chief Financial Officer and Treasurer (interim appointment in 2014)
Patrick C. Rock	Senior Vice President, General Counsel and Secretary
Steven M. Toler	Vice President, Clinical Pharmaceutical Sciences (terminated in 2015)
Scott N. Cullison	Vice President, Business Development (terminated in 2015)

I. Executive Summary

The Compensation Committee is committed to designing compensation policies and practices that promote pay for performance and use key corporate performance measurements that provide an alignment between the interests of Targacept's NEOs and its stockholders. This executive summary provides an overview of Targacept's 2014 company performance, compensation framework and pay actions, targeted total direct compensation, pay for performance and governance practices.

2014 Corporate Developments

- Targacept progressed its business development efforts, which focused on external, non-nicotinic strategic opportunities and recently culminated in its announcement, on March 5, 2015, of its entry into the definitive Merger Agreement with Catalyst, pursuant to which a wholly owned subsidiary of Targacept's will be merged with and into Catalyst, with Catalyst continuing as the surviving corporation. Under the terms of the merger, the security holders of Catalyst will become the majority owners of the outstanding shares of common stock of the combined company.
- Targacept ended the fiscal year with $110.8 million in cash and investments, which it expects to be sufficient to meet its reduced operating requirements for several years, or, if it is successful in completing the merger, Targacept believes it has sufficient capital to fund the operations of the combined company through forecasted milestones that have potential for value creation.
- Targacept initiated and maintained on-schedule enrollment of a Phase Ib exploratory trial as a treatment for diabetic gastroparesis.
- Targacept completed its Phase 2b monotherapy trial of TC-1734 as a treatment for mild to moderate Alzheimer's disease. In the trial, TC-1734 did not meet the objective of showing superiority to donepezil, the marketed medication most often prescribed for Alzheimer's disease, after 52 weeks of treatment. Based on these results, Targacept decided not to pursue further development of TC-1734.
- Targacept completed its Phase 2b trial of TC-5214 as a treatment for overactive bladder (OAB). In the trial, the high dose of TC-5214 demonstrated mixed results on the co-primary endpoints and did not reach statistical significance on episodes of urinary incontinence per 24 hours after 12 weeks of treatment. Based on these results, Targacept decided not to pursue further development of TC-5214 in OAB.

- AstraZeneca AB, or AstraZeneca, terminated its 2005 collaborative research and license agreement with Targacept, which was initially focused in cognitive disorders, effective January 2015. All remaining rights and licenses to compounds granted by Targacept under the agreement to AstraZeneca terminated and reverted to Targacept, including the rights and license relating to its product candidate TC-6683 (also known as AZD1446).
- Changes in Targacept's senior leadership included:
  - The assumption by John P. Richard of his role as Targacept's new Chairman of the Board effective January 1, 2014.
  - The departure of Targacept's Vice President, Clinical Development and Regulatory Affairs, David A. Hosford, M.D. Ph.D., effective September 21, 2014.
  - The departure of Targacept's Senior Vice President, Finance and Administration, Chief Financial Officer and Treasurer, Alan A. Musso, effective November 18, 2014.
  - The appointment of Mauri K. Hodges to serve on an interim basis as Targacept's Vice President, Finance and Administration, Chief Financial Officer and Treasurer, effective December 11, 2014.

2014 Compensation Framework

The Compensation Committee is responsible for, among other things, establishing the compensation of Targacept's executive officers, including its NEOs. The compensation of Targacept's NEOs for the fiscal years ended December 31, 2014, 2013, and 2012 is set forth in the Summary Compensation Table on page 165 of this proxy statement/prospectus/information statement. The Compensation Committee has designed Targacept's executive compensation program to achieve three primary objectives:

1) remain competitive with comparable companies in Targacept's industry in order to attract and retain talented individuals to contribute to its long-term success;

2) provide substantial incentive to achieve Targacept's business objectives and build stockholder value, thereby aligning the interests of its executives with the interests of its stockholders and paying for performance; and

3) achieve internal pay equity within Targacept's executive management team.

In furtherance of these objectives, Targacept's executive compensation program is and has historically been comprised principally of three elements:

- base salary, which does not vary based on Targacept's performance or results;
- eligibility for an annual cash bonus under an annual cash incentive award program, which incentivizes and rewards the achievement of pre-defined corporate performance objectives or other accomplishments that the Compensation Committee believes advance Targacept's business interests and contribute to its success and the creation of stockholder value; and
- stock-based awards, which align the interests of Targacept's executive officers with the interests of its stockholders and play an important role as a recruitment and retention tool as it competes for talent with companies that in some cases are larger, are at a more advanced stage or offer potential for high growth.

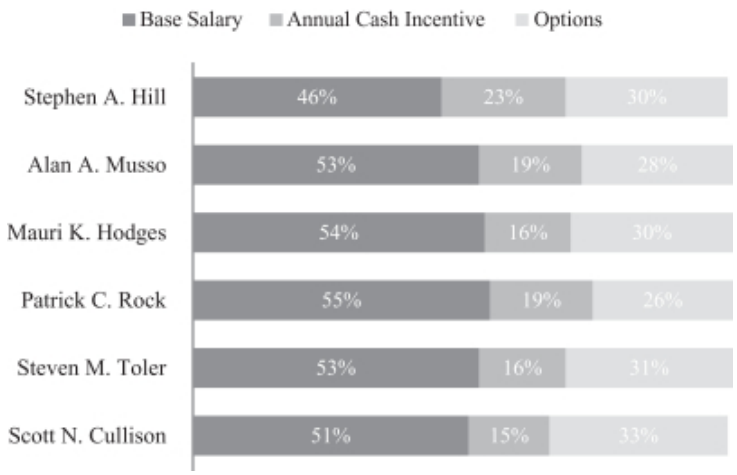
2014 Compensation Committee pay actions under this program are summarized below.

Compensation Element	Rationale	Compensation Committee Actions
Base Salary	*Provides a degree of financial certainty and stability.* *Recognizes competitive market conditions for top talent and/or rewards individual performance through periodic increases.*	Approved base salary increase of 5% for Mr. Cullison and 3% for the remaining NEOs, effective January 1, 2014. Approved an interim base salary increase of 21.4% for Mauri K. Hodges in recognition of her December 11, 2014, appointment to serve on an interim basis as Chief Financial Officer.
Annual Cash Incentive	*Motivates NEOs to meet or exceed Targacept's annual corporate performance objectives and positions Targacept for longer-term success.*	In January 2015, approved 52.9% of target payout under the 2014 program after determining achievement of specified criteria for clinical operations (30%), financial (15%), and leadership (7.9%) objectives.
Long-Term Incentive	*Uses equity-based awards (e.g., time-vested stock options) to (i) motivate behavior intended to result in stock price appreciation, (ii) focus NEOs on executing Targacept's long-term strategy, (iii) align NEO and stockholder interests, and (iv) attract and retain talent.*	Approved the grant of incentive stock options to substantially all employees. Dr. Hill was granted 175,000 options, Mr. Musso was granted 55,000 options and Mr. Rock each were granted 45,000 options, and Ms. Hodges and Mr. Cullison each were granted 40,000 options. The options vest quarterly over four years and have an exercise price of $4.74 per share, the closing price of Targacept's common stock on the grant date. Granted as a retention incentive, and in lieu of 2015 stock-based awards, restricted stock to the NEOs and other select, key personnel. Dr. Hill was granted 175,000 shares, Mr. Musso was granted 55,000 shares and Mr. Rock each were granted 45,000 shares, and Ms. Hodges and Mr. Cullison each were granted 40,000 shares. The restricted stock vests in two equal annual installments of 50% on December 31, 2015 and 50% on December 31, 2016. Mr. Musso's restricted shares were forfeited upon his resignation.

2014 Targeted Total Direct Compensation

The Compensation Committee seeks to balance the cash-versus stock-based elements and the fixed- versus variable incentive-based elements of Targacept's executive compensation program. Toward that end, with respect to each of its NEOs, the Compensation Committee generally aims for annual base salary, annual cash incentive compensation and annual equity grants to be at or near the 50th percentile for the comparable position or level of responsibility (e.g., chief executive, senior vice president, vice president) for companies in Targacept's peer group. However, the Compensation Committee does not rely solely on peer group data and is not bound by and does not rigidly adhere to a formulaic application of a predetermined percentile level within the peer group in determining compensation for Targacept's NEOs.

The table below shows the percentage breakdown of targeted total direct compensation ("TDC") for each NEO in fiscal 2014 (consisting of base salary, target annual cash incentive, and target long-term incentive calculated using the target annual salary, without adjustment for actual time worked during 2014, and valuing time-vested stock options as described in note 3 to the Summary Compensation Table on page 165). A significant portion of Targacept's NEOs' targeted TDC is variable, at-risk pay in the form of annual and long-term incentives; namely, 54% for its CEO and 45% to 48% for its other NEOs.



Governance Practices

Targacept has several governance practices that it believes reinforce the soundness of its compensation programs:

- The Compensation Committee is made up entirely of independent directors meeting the enhanced independence requirements under the NASDAQ listing standards;
- The Compensation Committee retains an independent compensation consultant working under the exclusive direction of the Committee;
- A change in control of Targacept, alone, would not give rise to severance payments under any of its employment agreements;
- None of Targacept's employment agreements provide for an excise tax gross up; and
- Targacept's insider trading policy prohibits trading in derivative instruments involving Targacept's securities, a practice often referred to as "hedging."

Stockholder Say-on-Pay

In 2014, Targacept sought an advisory vote from Targacept's stockholders regarding its executive compensation program. Over 97% of the votes cast supported the program. The Compensation Committee considers the results

of the advisory vote as it completes its annual review of each pay element and the compensation packages provided to Targacept's NEOs and other executives. Given the significant level of stockholder support received for this matter in 2014, the Committee concluded that the objectives of Targacept's executive compensation program are appropriate for a company of its size and stage of development and that its compensation policies and practices help meet those objectives. In addition, the Committee believes the program achieves an appropriate balance between fixed and variable incentive compensation, encourages long-term retention, and promotes alignment between the interests of Targacept's NEOs and stockholders.

Accordingly, the Committee determined not to make any significant changes to Targacept's executive compensation program as a result of the vote in 2014. The Committee will continue to consider the outcome of Targacept's say-on-pay votes and its stockholder views in making future compensation decisions for the NEOs and other executives.

II. Objectives of Executive Compensation

The primary objectives of Targacept's executive compensation program as it relates to its NEOs are described below.

Remain competitive with comparable companies in Targacept's industry in order to attract and retain talented individuals to contribute to its long-term success.

The Compensation Committee believes that Targacept's long-term success depends substantially on its ability to attract and retain highly qualified, experienced individuals to serve as its executive officers. Targacept compete for skilled executives in its industry, often with companies that are larger, are at a more advanced stage of drug development or offer potential for high growth. As a result, the Compensation Committee believes that the total compensation package for each of Targacept's NEOs must be at least competitive with comparable companies in its industry. Also, because Targacept competes on a national scale for executive talent, the Compensation Committee assesses the competitiveness of its compensation in the United States as a whole, rather than regionally.

In furtherance of this objective, the Compensation Committee generally aims for annual base salary and total target cash compensation (which takes into account base salary and target cash incentives) for each of Targacept's NEOs to be at or near the 50th percentile for the comparable position for comparable companies in its industry. However, for each of Targacept's NEOs, the targeted percentile represents a key data point but is not the sole factor in compensation determinations.

Provide substantial incentive to Targacept's NEOs to achieve its business objectives and build stockholder value, thereby aligning their interests with the interests of its stockholders and paying for performance.

The Compensation Committee believes it is important for Targacept's compensation program to align the interests of its NEOs with the interests of its stockholders to ensure its NEOs are invested in its long-term success and its goal of building stockholder value. To accomplish this alignment of interests, the compensation of each NEO includes, in addition to base salary, the opportunity to receive an annual cash incentive bonus and eligibility for the grant of stock-based awards, which have historically been stock options.

The annual cash incentive bonus is intended to make a substantial portion of each NEO's potential total annual compensation contingent on the achievement of corporate performance objectives that the Compensation Committee believes advance Targacept's business interests and contribute to its future success and the building of stockholder value. Accordingly, the dollar amount of annual cash incentive bonuses paid to its NEOs depends heavily on the extent to which the performance objectives are achieved. The Compensation Committee believes that stock option grants also serve to align the interests of Targacept's NEOs with the interests of its

stockholders. Because the exercise price of each stock option granted by the Compensation Committee is at least equal to the fair market value of the underlying stock as of the date of grant, the stock option provides a financial reward for the NEO only if the market price of its common stock increases after the grant date.

Together, these components of Targacept's executive compensation, which are described in more detail below under "Elements of and Rationale for Executive Compensation," are designed to incentivize its NEOs to work towards the achievement of its objectives in furtherance of its long-term success.

Achieve internal pay equity within Targacept's executive management team.

The Compensation Committee believes it is important that Targacept's executive compensation structure promote a cohesive management team and that its success, both in the short-term and the long-term, depends on interdisciplinary contribution across the team. Accordingly, the Committee seeks to achieve internal equity in compensating Targacept's NEOs. In particular, Targacept's goal is that the compensation paid to its NEOs be equitable and commensurate with his or her position, experience, responsibilities and contributions to its overall performance and achievements and the compensation paid to other NEOs.

Elements of and Rationale for Executive Compensation

Base Salary

Base salary for each of Targacept's NEOs is determined at or about the beginning of each year, and may in some cases be re-evaluated during the year, taking into account:

- the individual responsibilities of the NEO;
- an assessment of the NEO's individual performance, development and contributions to the achievement of Targacept's corporate performance objectives or otherwise to its achievements during the preceding year, as well as expected future contributions;
- base salary data for Targacept's peer group or, where publicly available data for a particular position in its peer group is limited, other relevant comparables;
- the historical base salary of the NEO during his or her employment with Targacept, including the amount and timing of previous adjustments; and
- the base salaries of Targacept's other NEOs.

Annual Cash Incentive Bonus

Each of Targacept's executive officers, including its NEOs, participates in an annual cash incentive program. Under this program, each executive officer is eligible to receive an annual cash bonus in an amount based on:

- a target bonus percentage of his or her base salary, which in some cases is subject to a minimum percentage specified in the executive officer's employment agreement; and
- Targacept's satisfaction of target or, in some cases, threshold or maximum criteria for achieving pre-defined corporate performance objectives, and in some cases other corporate accomplishments, that the Compensation Committee believes advance Targacept's business interests and contribute to its future success and the building of stockholder value.

The Compensation Committee believes that, as a clinical-stage biopharmaceutical company, Targacept's performance is measured generally by its ability to advance product candidates into and through the clinic towards the market, to attract collaborators with particularized expertise and substantial resources, to secure capital to fund its programs and to operate its business efficiently. Accordingly, Targacept's specified performance objectives have typically related to one or more of the following areas—the progression or

advancement of its product candidates, development program execution or outcomes, the enhancement of its product portfolio, business development, alliance management, regulatory operations, capital or operational efficiency, human resources matters and employee and investor communications matters.

Under Targacept's annual cash incentive award program, at or about the beginning of each fiscal year, the Compensation Committee establishes corporate performance objectives for that year and ascribes a percentage weighting to each performance objective. Following the end of the fiscal year, the Compensation Committee determines the achievement level of the program for that year. In determining the achievement level, the Compensation Committee (i) calculates the weightings ascribed to those specified performance objectives that have been met, (ii) determines whether to award all or any portion of the weighting ascribed to any performance objective that has not been met (i.e., because the objective was achieved only in part or on a delayed basis, because a strategic change occurred during the year making the objective unachievable, or for any other reason), and (iii) determines whether to make any adjustment based on other corporate accomplishments or events that occurred during the year.

Beginning with fiscal 2013, the mechanics of the program call for the Compensation Committee to establish for each performance objective at the beginning of the year target criteria for achievement and, in some cases, threshold and/or maximum criteria for achievement. For each performance objective that has a threshold criterion, the weighting for the objective is not credited if the threshold criterion is not met and 50% of the weighting for the objective is credited if the threshold (but not the target or, if applicable, maximum) criterion is met; if the target (but not the maximum, if applicable) criterion is met for a performance objective, 100% of its weighting is credited; and for each performance objective that has a maximum criterion, 150% of the weighting for the objective is credited if the maximum criterion is met; in each case subject to any discretionary adjustments that may be made by the Compensation Committee. As a result, the maximum weighting for all of the performance objectives in the aggregate can be up to 150% of the target.

Because the Compensation Committee believes the achievement of Targacept's objectives and its overall success require interdisciplinary contribution across its executive management team and that the achievement of, or failure to achieve, any particular objective reflects the performance of all of the members of its executive management team collectively, 100% of the annual cash bonus paid to its NEOs and the other members of its executive management team is based on the achievement level determined by the Compensation Committee for the program and not on individual performance. Accordingly, the amount of each of these participants' (including each NEO's) cash incentive bonus for a particular fiscal year is determined by multiplying his or her base wages received for that year by his or her assigned target bonus percentage and then by the achievement level for the program determined by the Compensation Committee for that year. All of Targacept's other employees also participate in the incentive award program. For each of these employees, 50% of the annual cash bonus is based on the achievement level determined by the Compensation Committee as described above and the other 50% is based on an assessment of individual performance.

The Compensation Committee believes that the annual cash incentive award program furthers Targacept's executive compensation objectives by:

- focusing Targacept's NEOs' attention directly on, and incentivizing them to achieve, performance objectives that are designed to contribute to its future success and to building stockholder value;
- making a substantial portion of the annual compensation for Targacept's NEOs contingent on achievement of the specified criteria, thereby aligning their interests with the interests of its stockholders and paying for performance; and
- balancing the fixed cash compensation that, in some cases, may be lower than Targacept's NEOs could potentially obtain at larger or more mature companies with which it may compete, thereby better enabling it to attract and retain executive talent.

Stock-Based Awards

Targacept's NEOs, other executive officers, other employees, and directors are also eligible to be granted stock options or other stock-based awards under Targacept's 2006 Stock Incentive Plan, as amended and restated, which is referred to in this proxy statement/prospectus/information statement as the "*2006 Plan*" or the "*Plan*."

The Compensation Committee has historically awarded stock options as Targacept's standard form of stock-based compensation due primarily to the expectation and familiarity of stock options as part of compensation packages for personnel in its industry and to enable greater flexibility for its employees in tax planning. All stock options granted to Targacept's NEOs and other employees in 2014 have been designated as incentive options, subject to applicable limits imposed by applicable tax law or regulation. Incentive options provide the potential for more favorable tax treatment for employees than nonqualified options.

The granting of stock options to Targacept's NEOs furthers its executive compensation objectives by:

- aligning the interests of the NEO with the interests of Targacept's stockholders, inasmuch as the NEO only receives a financial reward if it performs such that the market price of its common stock increases after the grant is made (grants of stock options are priced at no less than fair market value), and the financial reward would be no greater than that experienced by any third-party who purchased shares of its common stock on the grant date at a price equal to that day's closing price; and
- serving as a powerful retention tool because stock options granted to Targacept's NEOs typically have vesting schedules that extend over a four-year period.

Targacept does not have any program, plan or practice to select dates for stock options to be granted in coordination with the release of material non-public information. The Compensation Committee generally considers making stock option grants in January of each year, when the extent to which Targacept has achieved its corporate performance objectives for the preceding year is known, so as to coordinate consideration of stock-based compensation with consideration of the other elements of Targacept's executive compensation. However, the Committee sometimes grants stock options later in the year if circumstances warrant.

In 2014, the Compensation Committee for the first time granted restricted stock to Targacept's NEOs and other select, key personnel, which brings its stock-based compensation practices into closer alignment with those of its peer group.

III. Compensation Decision-Making Process

Role of the Compensation Committee in the Compensation Process

The Compensation Committee is responsible for establishing the components and amounts of compensation for each of Targacept's executive officers, including its NEOs. The current members of the Committee are Ms. Brown, Dr. Dunton and Mr. Richard, with Ms. Brown serving as chairperson.

The Compensation Committee works closely with its independent consultant and meets regularly, including in executive session without management present, to make decisions on Targacept's executive compensation program and on the compensation of its executives. The Committee reviews a variety of market data and information, including company, peer group, and industry compensation information. The Committee Chair reports the actions of the Compensation Committee to the Targacept board of directors at each regular meeting.

The Committee's responsibilities include reviewing and approving Targacept's:

- Compensation peer group;
- Compensation philosophy and objectives;
- Amount and form of executive compensation (e.g., pay increases, equity grants);
- CEO's performance and compensation;

- Annual cash incentive plan metrics and goals and achievement of goals;
- Employment, severance, and change in control agreements for Targacept's Chief Executive Officer and other executive officers; and
- Annual CD&A disclosure, which the Committee recommends to the Targacept board of directors for inclusion in its annual report on Form 10-K (either directly or by incorporation by reference to its subsequently filed proxy statement).

Role of the Independent Compensation Consultant

The Compensation Committee's charter authorizes it to retain outside advisors, including independent compensation experts, as it deems appropriate to advise it in connection with its responsibilities and to approve related fees and engagement terms. Any advisor retained reports directly to the Compensation Committee. The Committee has retained the services of Radford, an Aon Hewitt company ("Radford"), as its independent compensation consultant since the third quarter of 2011. Radford performs the following responsibilities:

- Attends or participates by phone in Committee meetings, including non-management executive sessions, when requested by the Committee;
- Provides independent advice to the Committee on current trends and best practices in compensation design and program alternatives, and advises on plans or practices that may improve effectiveness;
- Provides and discusses peer group and survey data for competitive comparisons and, based on this information, offers independent recommendations on CEO and NEO compensation;
- Reviews the CD&A, compensation tables, and other compensation-related disclosures in Targacept's annual report on Form 10-K or proxy statements;
- Offers recommendations, insights and perspectives on compensation-related matters;
- Evaluates and advises the Committee regarding enterprise and related risks associated with executive compensation components, plans and structures; and
- Supports the Committee to ensure executive compensation programs are competitive and align the interests of Targacept's executives with those of its stockholders.

A Radford representative participated throughout 2014 in several Compensation Committee meetings and consulted frequently with the Committee chairperson. Representatives from Radford reviewed this CD&A and the compensation-related tables contained in this proxy statement/prospectus/information statement.

In 2014, Targacept's management engaged affiliates of Aon Corporation, Radford's parent company, to provide retirement benefit plan and insurance brokerage advisory services. Targacept paid $12,967 in professional fees for the retirement benefit plan services in 2014. For the insurance brokerage services, Aon is paid by third-party insurance companies and not by Targacept. Those third-party payments amounted to less than 1% of Aon's 2014 revenues. The Compensation Committee has considered various factors, including Targacept's engagements of Radford affiliates, and does not believe that Radford has a conflict of interest in fulfilling its engagement to the Compensation Committee.

Role of the CEO in Compensation Decisions

As described above, on an annual basis for each of Targacept's executive officers, including its NEOs, the Compensation Committee determines base salary and considers whether to make any adjustment in target bonus percentage. As part of the process, the Compensation Committee's consultant or, if none is engaged for any particular year and Targacept's CEO or the chairperson of the Compensation Committee so directs, its Controller assembles: a tally sheet for each executive officer; data showing the relationship of the executive officer's compensation to the compensation of its other executive officers; and base and total compensation data for

executives in comparable positions in its then-current peer group or comparable companies in its industry based on number of employees as reflected in the applicable Radford Life Sciences survey. In addition, where the Compensation Committee has engaged a consultant, Targacept's Controller or Human Resources function may provide information requested by the consultant, such as job codes used to correlate its executive officers with positions in the Radford survey as well as burn rate and overhang calculations.

For each executive officer other than himself, Dr. Hill makes a recommendation regarding base salary and, in some cases, target bonus percentage to the Compensation Committee, taking into account the factors discussed above. At or about the same time, Dr. Hill proposes for consideration by the Compensation Committee corporate performance objectives and, beginning with fiscal 2013, associated threshold, target or maximum achievement criteria, determined in consultation with Targacept's executive management team, for the annual cash incentive award program. He then participates in the meeting at which the Compensation Committee determines the base salary and target bonus percentage for Targacept's executive officers and the performance objectives and associated criteria for the incentive award program. No other member of management is present for the portion of this meeting during which these matters are finally determined. As required by the Compensation Committee's charter, Dr. Hill is excused from the portion of the meeting during which his performance is considered and his base salary and target bonus percentage are finally determined.

With respect to the granting of stock based awards, the Compensation Committee has historically determined the period over which the shares reserved under Targacept's equity plans are intended to be available for consideration for potential issuance. In making that determination, the Compensation Committee takes into account market data relating to burn rate for Targacept's peer group, overall employee ownership, dilutive effects and the role of stock-based awards in meeting the objectives of its compensation program. Based on the guidance received from the Compensation Committee, Dr. Hill may from time to time propose that the Compensation Committee consider the grant of stock based awards. In that event, Dr. Hill typically recommends a number of awards proposed to be granted to each of Targacept's executive officers based on its executive compensation objectives and the factors discussed above. The Compensation Committee then makes the determination whether to grant any or all of the awards and, if it determines to make a grant, the individuals who will receive an award, the number of shares to be subject to such award and any particular terms to be applicable to such award. As discussed above, the Compensation Committee has determined that, as a general matter, it will consider making stock option grants as part of the annual performance assessment process in or about January of each year.

In addition, Dr. Hill may from time to time propose that the Compensation Committee consider granting stock-based awards to NEOs and other key personnel as a retention incentive where circumstances warrant.

IV. Compensation Competitive Analysis

Benchmarking the compensation that Targacept pays to its executives against compensation paid to executives in comparable positions at comparable companies helps the Compensation Committee assess market competitiveness and meet Targacept's objectives. Accordingly, in determining the compensation for Targacept's NEOs for any particular year, the Compensation Committee utilizes compensation data and information for drug development companies it believes have profiles sufficiently similar to Targacept's so as to constitute an appropriate peer group. When selecting companies to include in the peer group, the Compensation Committee has considered a variety of factors, including stage of development, market capitalization, company size and, in some cases, company location or various financial metrics. The Compensation Committee does not emphasize revenue when selecting a peer group because clinical-stage companies typically do not have product revenue. Once the peer group is selected, the Compensation Committee benchmarks various elements or measures of Targacept's executive compensation against the peer group. Where, for any particular position, the peer group does not provide sufficient information to provide an appropriate benchmark, the Compensation Committee utilizes data for the position from a broader market survey of companies considered generally similar to Targacept.

The Compensation Committee currently targets the 50th percentile of Targacept's peer group for the corresponding position or level of responsibility, subject to discretionary consideration of individual or company performance or other case-by-case circumstances as the Compensation Committee considers appropriate.

The Compensation Committee periodically considers the continued appropriateness of the peer group used to benchmark Targacept's executive compensation. Based on the recommendation of Radford, the Committee substantially modified the peer group in 2012, and apart from removing one company due to insolvency, the Committee left the peer group unchanged in 2013. Recognizing Targacept's continuing clinical setbacks and the need for stability in its compensation program as Targacept reassessed its strategic direction, the Committee decided in 2014 to defer reviewing the appropriateness of the peer group until 2015.

Targacept's current peer group is comprised of the following 14 companies: Alimera Sciences, Inc.; Amicus Therapeutics, Inc.; Array Biopharma Inc.; BioCryst Pharmaceuticals, Inc.; Celldex Therapeutics, Inc.; Cytokinetics, Incorporated; Infinity Pharmaceuticals, Inc.; Keryx Biopharmaceuticals, Inc.; Omeros Corporation; OncoGenex Pharmaceuticals, Inc.; Sangamo Biosciences, Inc.; Sunesis Pharmaceuticals, Inc.; Synta Pharmaceuticals Corp.; and XenoPort, Inc.

V. Fiscal 2014 Compensation

Decision to Pay Each Element and Determination of Amounts for 2014

In determining the elements and amounts of compensation to be paid to each of Targacept's NEOs, the Compensation Committee reviews each NEO's historical compensation, utilizing executive compensation statements, or tally sheets, that include information on various aspects of current and historical compensation to facilitate its review.

Base Salary In January 2014, the Compensation Committee approved the following increases in the base salaries for Targacept's NEOs with effect from January 1, 2014:

Named Executive Officer	($) 2013 Base Salary	($) 2014 Base Salary	(%) Increase
Stephen A. Hill	500,000	515,000	3
Alan A. Musso	343,417	353,720	3
Patrick C. Rock	316,000	325,480	3
Steven M. Toler	257,500	265,225	3
Mauri K. Hodges	240,000	247,200	3
Scott N. Cullison	200,000	210,000	5

The Committee based its approval of these changes on a review of peer group benchmarking data, individual performance, skills, criticality of position, and a need to maintain market competitiveness. In December 2014, the Compensation Committee approved an interim annual base salary increase of $52,800 for Ms. Hodges effective November 21, 2014, in recognition of the added responsibilities that accompanied her appointment by Targacept's board of directors to serve on an interim basis as Vice President, Finance and Administration, Chief Financial Officer and Treasurer, following the November 18, 2014, resignation of Alan A. Musso. This interim salary approximates the 25th percentile of base salaries for top financial executives in Targacept's peer group.

Cash Incentive Bonus

In January 2014, the Compensation Committee established performance objectives, associated weightings, and criteria for measuring achievement under Targacept's annual cash incentive award program for fiscal 2014.

Objectives	Target*	Weighting
Clinical Science	Positive top-line results in Targacept's Phase 2b trial of TC-5214 in overactive bladder	30%
Clinical Operations	All ongoing clinical programs to be completed within three months of plan, within 2% of budget, and with no meaningful quality issues at year-end	20%
Portfolio Enhancement	Supplement existing pipeline with a Phase 2b or later stage asset by year-end 2014 that offers meaningful value inflection point by year-end 2015	30%
Financial	Complete all planned activities within budget leaving at least $100M in cash and investments at year-end	10%
Leadership	Achieve grand mean employee engagement score of 4.5 or greater on Gallup Company Survey	10%

* *Target criteria are those used for assessing baseline achievement (i.e., 100%) of a specific objective. All objectives also have threshold (50%) and maximum (150%) criteria parameters.*

In January 2015, the Compensation Committee determined that the achievement level to be applied under Targacept's incentive award program for fiscal 2014 was 52.9% of target. In setting the achievement level, the Compensation Committee made the following performance determinations:

- The TC-5214 trial results did not meet the primary endpoint, thereby failing to satisfy the target criterion (0% of weighting, or 0% of target);
- All 2014 clinical programs were on or ahead of schedule, within budget and executed with no meaningful quality issues, thereby satisfying the maximum criterion (150% of weighting, or 30% of target);
- The portfolio enhancement criteria were not satisfied (0% of weighting, or 0% of target);
- Capital efficiency efforts resulted in expenditures of less than 95% of budget and a cash balance in excess of $105M at year-end, thereby satisfying the maximum criterion (150% of weighting, or 15% of target); and
- Achieved by year-end a grand mean employee engagement score of 4.29 on the Gallup Company Survey, thereby achieving at a level between the threshold and target criteria (79.5% of weighting, or 7.9% of target).

Applying Targacept's NEOs' respective target bonus percentages for fiscal 2014 to the 52.9% of target achievement level determined by the Compensation Committee, Dr. Hill received a cash incentive bonus of $129,532, Mr. Rock received a cash incentive bonus of $60,263, Dr. Toler received a cash incentive bonus of $40,051, Ms. Hodges received a cash incentive bonus of $35,435, and Mr. Cullison received a cash incentive bonus of $28,885. Mr. Musso received no cash incentive bonus as he left employment with Targacept in November 2014.

Stock-Based Awards

Stock Options. In January 2014, the Compensation Committee granted stock options to each of Targacept's NEOs as well as to substantially all of its other employees. In establishing the number of shares to be subject to the stock options granted to each of Targacept's NEOs, the Compensation Committee considered:

- the value of stock options as an incentive and retention tool, particularly in light of the disappointing results from the Phase 2b clinical trial of TC-5619 in schizophrenia announced in December 2013;

- the limited retention value of the NEOs' outstanding stock options, recognizing that approximately 90% of the existing grants held by those individuals were underwater;
- the number of shares available for issuance under the 2006 Plan;
- data provided by Radford for the comparable position level in the peer group regarding the estimated value and company ownership percentage represented by the most recent annual stock-based awards, including an analysis of equity vehicle mix (e.g., stock options vs. restricted stock);
- additional data provided by Radford for Targacept and for the peer group regarding "burn rate" (a measure of shares subject to stock-based awards granted as a percentage of shares issued and outstanding) over one- and three-year periods and regarding "total equity overhang" (a measure of shares subject to stock-based awards outstanding or reserved for future grant as a percentage of shares issued and outstanding); and
- stock-based plan management guidelines for burn rate published by proxy advisory groups.

The Compensation Committee agreed to an annual grant award based on these considerations and applying its equity grant philosophy of targeting annual equity grants at the 50th percentile of the comparable level of responsibility for Targacept's peer group.

All of these stock options have an exercise price of $4.74 per share, the closing price of Targacept's common stock on the NASDAQ Global Select Market on the date of grant, January 23, 2014, and vest quarterly over four years, contingent on continued service through the applicable vesting date. In the case of Mr. Musso, 81% of the stock option grant was forfeited upon his November 18, 2014, resignation.

Restricted Stock. In October 2014, the Compensation Committee elected to grant restricted stock awards to all NEOs and certain other key personnel in lieu of 2015 annual stock-based awards. The Committee believed the timing of this award—aligned with Targacept's consideration of a broad range of strategic transaction alternatives—was critical to ensuring optimal alignment between employee and shareholder interests. The use of restricted stock, as opposed to stock options, was considered to be the optimal tool for helping to ensure the long-term retention of the key personnel needed to execute any one of a range of those transactions. The NEO restricted stock award amounts were:

Named Executive Officer	Restricted Stock Awards
Stephen A. Hill	175,000
Alan A. Musso	55,000
Patrick C. Rock	45,000
Steven M. Toler	45,000
Mauri K. Hodges	40,000
Scott N. Cullison	40,000

In establishing the number of shares to be subject to the grants, the Compensation Committee considered, among other things, Targacept's peer group practices, burn rate, and market dilution.

The restricted stock vests in equal amounts at the end of each of the next two years, with 50% vesting on December 31, 2015, and 50% vesting on December 31, 2016, subject to continued employment. All restricted stock awarded to Mr. Musso was forfeited upon his resignation in November 2014.

VI. Other Benefits and Compensation

Executive Benefits

Targacept's NEOs and other executives receive the same benefits as those generally available to Targacept's other employees. Both company-subsidized and voluntary benefit programs are provided and include medical, dental, life insurance, vision, flexible spending accounts, travel and disability coverage.

Retirement Plans

Targacept's retirement plan, or 401(k) Plan, is available to all employees and all 401(k) Plan participants are eligible to receive the same level of matching contributions (4%) from Targacept. The NEO's are limited to their matching contributions based on the maximum amount of recognizable compensation allowed under the Internal Revenue Code's qualified plan rules. The limit for 2014 was $10,400. Unlike traditional pension plans, the retirement benefits from Targacept's 401(k) Plan are based on the investment return on the employee's own investment elections, with the participant bearing the investment risk.

Change in Control

The Committee believes that a change in control, or CIC, employment agreement provision benefits stockholders by providing an important incentive to senior executives to remain focused on running the business in the case of a pending or actual change in control event.

Accordingly, Targacept's current employment agreements with each of its NEOs contain a CIC provision that provides compensation in the form of monthly cash payments, acceleration of vesting of equity awards, and other benefits, all for a set period of time following termination, in the event of a qualifying termination (termination by the executive for good reason or by it without just cause) within 12 months following, or in connection with but prior to, a change in control of Targacept (a "double-trigger" provision). Further details are set forth in the section entitled "—Employment Agreements" below.

Tax Gross-Ups

Targacept does not provide tax gross-ups, except for payroll taxes associated with limited business-related payments such as reimbursement of certain moving and relocation expenses.

VII. Actions Taken in Fiscal 2015

On January 21, 2015, the Compensation Committee:

- Upon the recommendation of Dr. Hill, elected not to increase NEO base salaries for 2015, except in the case of Mr. Cullison, whose base salary was increased 19% (from $210,000 to $250,000) to bring his base pay into closer alignment with the 50th percentile of Targacept's peer group;
- Giving consideration to the value of stock options as an incentive and retention tool, granted a stock option to purchase shares of Targacept's common stock to substantially all employees who met their individual performance goals during 2014. All options vest over a four-year period, subject to continued employment, and have an exercise price of $2.52 per share, the closing price of Targacept's common stock on the NASDAQ Global Select Market on the grant date. The NEOs and other key personnel who were awarded restricted stock in October 2014 were excluded from this grant of stock options; and
- Developed performance objectives and associated weightings and achievement criteria for the incentive award program for fiscal 2015 without materially changing the mechanics of the program established in fiscal 2014. The performance objectives for 2015 include the achievement of specified goals with respect to: the outcome of Targacept's Phase 1b exploratory trial of TC-6499 in diabetic gastroparesis; satisfactory completion of Targacept's merger with Catalyst; monetizing or attracting investment in Targacept's NNR portfolio; and increased market value.

VIII. Considerations of Risk in Targacept's Compensation Programs

The board of directors has ultimate responsibility for risk oversight. The Compensation Committee assists the Targacept board of directors in overseeing potential risks that may be associated with its compensation program. Targacept's senior management has established a cross-functional team for assessing, mitigating, and monitoring compensation risk. The Committee receives periodic reports with respect to the team's activities and findings.

The Compensation Committee does not believe that Targacept's compensation policies and practices are reasonably likely to have a material adverse effect on Targacept. In assessing whether Targacept's compensation programs encourage excessive or inappropriate risk taking, the Compensation Committee gave particular consideration to its annual cash incentive bonus program. The performance objectives for the program are set by the Compensation Committee at the beginning of each year and are designed to further Targacept's business interests. It is possible that circumstances may evolve in any particular year such that achievement of a performance objective defined at the beginning of the year would no longer be beneficial to Targacept. In that event, the Compensation Committee expects that the circumstances would be discussed at meetings of the Targacept board of directors held throughout the year and that the Compensation Committee would consider taking discretionary action—either during the year or when determining the achievement level under the incentive award program at the end of the year—with regard to the affected performance objective(s). The Compensation Committee believes that the discretion that it retains to modify any performance objective during the year or to credit any performance objective that may not have been met for a particular reason (such as, for example, a strategic change that occurs during the year) substantially eliminates any risk that may be associated with a change in circumstances. In addition, the Compensation Committee believes that the use of multiple performance objectives for the program each year reduces any risk that may otherwise be associated with any particular indicator of performance.

Pay practices that are commonly cited as corporate governance concerns are not part of Targacept's executive compensation program. For example, as noted above, a change in control of Targacept, alone, would not give rise to the payment of severance under any of its employment agreements with its NEOs. Severance under these agreements is not triggered unless employment of the executive is terminated other than for a defined cause or by the executive for a defined good reason. In addition, none of Targacept's employment agreements provides for an excise tax gross up.

Compensation Committee Report

The Compensation Committee has reviewed and discussed the CD&A that appears in this proxy statement/prospectus/information statement with Targacept's management. Based on its review and discussions, the Compensation Committee recommended to the Targacept board of directors that the CD&A be included in this proxy statement/prospectus/information statement for the year ended December 31, 2014.

This Compensation Committee report shall not be deemed to be "soliciting material" or subject to Regulation 14A or Regulation 14C under the 1934 Act, shall be deemed furnished in Targacept's Annual Report on Form 10-K for the year ended December 31, 2014, is otherwise not incorporated by reference into any of Targacept's previous filings with the SEC and is not to be incorporated by reference into any of Targacept's future filings with the SEC, irrespective of any general statement included in any such filing that incorporates this proxy statement/prospectus/information statement by reference, unless such filing explicitly incorporates this Compensation Committee report by reference.

Respectfully submitted,
Julia R. Brown, Chairperson
Alan W. Dunton, M.D.
John P. Richard

Summary Compensation

The following table contains information regarding the total compensation for the fiscal years ended December 31, 2014, 2013 and 2012 of Targacept's Chief Executive Officer, the two individuals who served as its Chief Financial Officer during fiscal year 2014, the two other most highly compensated executive officers who were serving as executive officers on December 31, 2014, and one other individual who served as an executive officer during fiscal 2014. We refer to these individuals in this proxy statement/prospectus/information statement as Targacept's "*named executive officers*" or "*NEOs*."

SUMMARY COMPENSATION TABLE

Summary Compensation Table

Name and principal position	Year	Salary ($)	Bonus ($)(1)	Stock Awards ($)(2)	Option Awards ($)(3)	Non-Equity Incentive Plan Compensation ($)(1)	All Other Compensation ($)(4)	Total ($)
Stephen A. Hill(5)	2014	515,000	129,532	339,500	682,500	—	10,775	1,677,307
President and Chief Executive Officer	2013	500,000	187,500	0	0	—	11,868	699,368
	2012	41,666	0	0	1,180,600	—	1,672	1,223,938
Alan A. Musso(6)	2014	313,813	0	106,700	214,500	—	25,705	660,718
Senior Vice President, Finance and	2013	343,417	156,830	0	205,270	—	10,200	715,717
Administration, Chief Financial Officer, Treasurer and Assistant Secretary	2012	333,415	52,504	0	301,990	5,835	10,000	703,744
Mauri K. Hodges(7)	2014	258,523	35,435	77,600	156,000	—	10,400	537,958
Vice President, Finance and Administration, Chief Financial Officer, Treasurer								
Scott N. Cullison(7)	2014	210,000	28,885	77,600	156,000	—	10,400	482,885
Vice President, Business Development								
Patrick C. Rock(8)	2014	325,480	60,263	87,300	175,500	—	10,400	658,943
Senior Vice President, General Counsel and Secretary	2013	111,410	29,245	0	365,400	—	13,777	519,832
Steven M. Toler(7)	2014	265,225	40,051	87,300	175,500	—	10,400	578,476
Vice President, Clinical Pharmaceutical Sciences								

(1) The amounts in the columns titled "Bonus" and "Non-Equity Incentive Plan Compensation," together, reflect cash payments made in January of the following year pursuant to Targacept's annual cash incentive award program. Targacept's annual cash incentive award program is discussed above under "—Compensation Discussion and Analysis." For 2013, the amounts in the column titled "Bonus" for Mr. Musso, also reflects a cash retention award per his 2012 agreement of $66,683. In addition, in 2013, Mr. Musso received $35,000 in additional compensation for responsibilities assumed during 2012 as a member of the Office of the Chairman during the pendency of Targacept's search for a new Chief Executive Officer. Mr. Rock's 2013 bonus is a prorated amount based on his August 26, 2013 hire date.

(2) The amounts in this column reflect the aggregate grant date fair value of restricted stock awarded during the year calculated in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718, *Compensation—Stock Compensation*, or ASC 718, disregarding the potential for forfeitures, regardless of the period in which the corresponding compensation expense was recorded in accordance with ASC 718. The assumptions used to calculate grant date fair value are discussed in Note 9 to Targacept's audited financial statements included on page F-22 of this proxy statement/prospectus/information statement for the fiscal year ended December 31, 2014. For Mr. Musso, 100% of the amount shown in this column for 2014 is attributable to restricted stock that was forfeited upon the end of his employment with Targacept on November 18, 2014.

(3) The amounts in this column reflect for each fiscal year shown the aggregate grant date fair value of stock options granted during the year calculated in accordance with ASC 718, disregarding the potential for forfeitures, regardless of the period in which the corresponding compensation expense was recorded in accordance with ASC 718. The assumptions used to calculate grant date fair value are discussed in Note 9 to Targacept's audited financial statements included on page F-22 of this proxy statement/prospectus/information statement. For Mr. Musso, $174,281 of the amount shown in this column for 2014 is attributable to stock options forfeited upon the end of his employment with Targacept on November 18, 2014.

(4) The amounts in this column represent matching contributions that Targacept made under its 401(k) plan, except that for (a) Mr. Musso the amount for 2014 reflects $15,305 in additional compensation for vacation that was earned but unused as of the end of his employment with Targacept, (b) Dr. Hill received a reimbursement of $375 for personal airline mileage in 2014, and (c) Dr. Hill and Mr. Rock received non-qualified moving expenses of $1,668 and $9,307, respectively, associated with the start of their employment with Targacept.

(5) Dr. Hill became Targacept's President and Chief Executive Officer on December 1, 2012.

(6) Mr. Musso's employment with Targacept ended on November 18, 2014.

(7) Mr. Cullison, Ms. Hodges, and Dr. Toler were not named executive officers for fiscal years 2013 and 2012. Dr. Toler's employment with Targacept ended on March 11, 2015. Mr. Cullison's employment with Targacept will end on May 31, 2015.

(8) Mr. Rock joined Targacept on August 26, 2013, and became its Senior Vice President, General Counsel and Secretary effective October 1, 2013.

Information Relating to Plan-Based Awards

The following table contains information regarding grants of plan-based awards to Targacept's NEOs made during the fiscal year ended December 31, 2014.

2014 GRANTS OF PLAN-BASED AWARDS

Name	Grant & Approval Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards(1)			All Other Stock Awards: Number of Shares of Stock(2)	All Other Option Awards: Number of Securities Underlying Options(3)	Exercise or Base Price of Option Awards ($/Share)(4)	Grant Date Fair Value of Awards ($)(5)
		Threshold ($)	Target ($)	Maximum ($)				
Stephen A. Hill		—	$257,500	$386,250	—	—		—
	1/23/2014	—	—	—	—	175,000		$682,500
	10/11/2014	—	—	—	175,000	—		$339,500
Alan A. Musso		—	—	—	—	—		—
	1/23/2014	—	—	—	—	55,000		$214,500(6)
	10/11/2014	—	—	—	55,000	—		$106,700(7)
Mauri K. Hodges		—	$ 77,557	$116,335	—	—		—
	1/23/2014	—	—	—	—	40,000		$156,000
	10/11/2014	—	—	—	40,000	—		$ 77,600
Scott N. Cullison		—	$ 63,000	$ 94,500	—	—		—
	1/23/2014	—	—	—	—	40,000		$156,000
	10/11/2014	—	—	—	40,000	—		$ 77,600
Patrick C. Rock		—	$113,918	$170,877	—	—		—
	1/23/2014	—	—	—	—	45,000		$175,500
	10/11/2014	—	—	—	45,000	—		$ 87,300
Steven M. Toler		—	$ 79,568	$119,351	—	—		—
	1/23/2014	—	—	—	—	45,000		$175,500
	10/11/2014	—	—	—	45,000	—		$ 87,300

(1) Targacept's annual cash incentive award program is considered a non-equity incentive plan and is discussed above under "—Compensation Discussion and Analysis." For fiscal 2014, there was no threshold amount payable under the program. The amounts shown in the "Target" column reflect each named executive officer's target bonus percentage of base salary set by the Compensation Committee for fiscal 2014. The amounts shown in the "Maximum" column reflect the maximum amount payable to each named executive officer under the program based on his or her target bonus percentage and the aggregate weight for all of the corporate performance objectives approved by the Compensation Committee initially in January 2014. The amounts actually paid to Targacept's named executive officers under the program for fiscal 2014 were as follows: $129,532 for Dr. Hill, $60,263 for Mr. Rock, $40,051 for Dr. Toler, $0 for Mr. Musso, $35,435 for Ms. Hodges, and $28,885 for Mr. Cullison. All amounts awarded under the program for fiscal 2014 were paid in January 2015. Mr. Musso's employment with Targacept ended on November 18, 2014 and he did not receive a cash incentive bonus under the program for fiscal 2014.

(2) Award of restricted stock under the 2006 Equity Plan that vests in equal installments on December 31, 2015 and on December 31, 2016.

(3) The options reflected in this column were granted under the 2006 Plan and vest and become exercisable in equal installments on the last day of 16 consecutive calendar quarters beginning with March 31, 2014.

(4) The exercise price per share of each option shown is equal to the closing price of Targacept's common stock on the NASDAQ Global Select Market on the grant date.

(5) The grant date fair value of option awards and restricted stock awards is calculated in accordance with ASC 718 as described in footnotes 2 and 3 to the Summary Compensation Table.
(6) Of the amount shown, $174,281 is attributable to stock options forfeited upon the end of Mr. Musso's employment with Targacept on November 18, 2014.
(7) Of the amount shown, $106,700 is attributable to restricted stock forfeited upon the end of Mr. Musso's employment with Targacept on November 18, 2014.

Additional discussion regarding factors that may be helpful in understanding the information included in the Summary Compensation Table and 2014 Grants of Plan-Based Awards table is included above under "—Compensation Discussion and Analysis."

Employment Agreements

In 2014, Targacept entered into an employment agreement with Mr. Cullison, an amendment to its employment agreement with Dr. Hill, and an amended and restated agreement with Mr. Musso. The changes to the employment agreements with Dr. Hill and Mr. Musso were made principally to more closely align the terms of those agreements with those of the employment agreement terms of Targacept's other senior executives. Targacept previously entered into employment agreements with Ms. Hodges and Mr. Rock. Mr. Musso's employment agreement was automatically terminated by operation of its terms upon his November 18, 2014 resignation. On March 11, 2015, Targacept terminated the employment of Steven M. Toler. On May 13, 2015, Targacept terminated the employment of Scott N. Cullison, effective May 31, 2015.

Employment Agreement with Dr. Hill

Targacept's employment agreement with Dr. Hill, as amended, continues until terminated either by Targacept or by him. The employment agreement provides for a minimum annual base salary that is to be reviewed and subject to increase in accordance with Targacept's policies and procedures. Dr. Hill is also eligible to receive stock-based awards and to earn an annual bonus based on a target percentage of 50% of his annual base salary or such higher amount as the Targacept board of directors or Compensation Committee may approve.

If Dr. Hill's employment with Targacept terminates for any reason, he is entitled to receive a lump sum equal to (i) any base salary earned and due but not yet paid through the effective date of termination plus (ii) any bonus or other compensation earned and due pursuant to the express terms of any Targacept plan or program but not yet paid through the effective date of termination. In addition, if Targacept (or a successor) terminate Dr. Hill's employment other than for "Just Cause," or if he terminates his employment within one year following the first occurrence of "Good Reason," he is entitled to receive:

- severance following termination equal to his then-current base salary for 12 months (or, if the termination is concurrent with or within 12 months following, or in connection with but prior to, a defined change in control of Targacept, equal to his then-current base salary and a prorated portion of his then-current target bonus for 18 months), payable monthly, except that any amount that would exceed the exemption under Section 409A of the Internal Revenue Code of 1986, as amended, would be payable in a lump sum two and one-half months following the end of Targacept's taxable year in which the termination occurs;
- if the termination is concurrent with or within 12 months following, or in connection with but prior to, a defined change in control of Targacept, full acceleration of unvested options to purchase capital stock or restricted stock; and otherwise six (6) months acceleration of vesting for unvested options to purchase any capital stock, and restricted stock or other equity-based awards outstanding as of the effective date of termination;
- continuation of the health and life insurance benefits coverage provided to him as of the date of termination for the period during which he receives severance, provided Dr. Hill (i) makes a timely

election of continuation under the Consolidated Omnibus Budget Reconciliation Act of 1985 (commonly referred to as "COBRA") and (ii) continues paying the same percentage of the total cost for such life insurance or health care coverage as he was paying at the time of termination; and

- up to $10,000 in outplacement counseling services, if incurred by him and paid by Targacept within specified time periods.

"Just Cause" under the employment agreement means Dr. Hill's: (i) willful and material breach of the agreement and his continued failure to cure the breach for a specified period; (ii) conviction of, or entry of a plea of guilty or nolo contendere to a felony or a misdemeanor involving moral turpitude; (iii) willful commission of an act of fraud, breach of trust, or dishonesty including, without limitation, embezzlement, that results in material damage or harm to Targacept's business, financial condition or assets; (iv) intentional damage or destruction of substantial property of Targacept's; or (v) a violation of specified company policies or an act or omission contrary to generally expected ethical or professional standards.

"Good Reason" under the employment agreement means: (i) the material breach by Targacept (or a successor) of any material provision of the agreement; (ii) any purported termination of Dr. Hill's employment that is not effected in accordance with the agreement; (iii) any uncured failure by Targacept (or a successor) to pay Dr. Hill any amounts of salary or bonus compensation that have become due and payable; (iv) a reduction in Dr. Hill's annual base salary, unless the reduction is part of, and at the same percentage as, an across-the-board salary reduction for all similarly-situated executives; (v) any material diminution in Dr. Hill's duties, responsibilities, authority, reporting structure, status or title, unless approved by him; or (vi) Dr. Hill being required to relocate to a location more than fifty (50) miles from his initial worksite (Winston-Salem, North Carolina); in each case conditional on Dr. Hill providing written notice of the initial existence of Good Reason within 90 days and the Good Reason continuing to exist 30 days after the notice.

The employment agreement provides that Dr. Hill shall at all times maintain the confidentiality of Targacept's proprietary information and shall not engage in a business defined in the agreement as competitive to Targacept until 12 months after termination of employment with Targacept.

Employment Agreements with Mr. Cullison, Ms. Hodges and Mr. Rock

Targacept's employment agreements with each of Mr. Cullison, Ms. Hodges and Mr. Rock provide for a minimum annual base salary that is to be reviewed and subject to increase in accordance with Targacept's policies and procedures. Each of Mr. Cullison, Ms. Hodges and Mr. Rock also is eligible to receive stock-based awards and to earn an annual cash bonus based on a target percentage of his or her annual base salary. Each of the employment agreements provides for a minimum target bonus percentage, which may be increased at the discretion of the Targacept board of directors or Compensation Committee. For fiscal 2014, the target bonus percentage for Mr. Cullison and Ms. Hodges was 30% and the target bonus percentage for Mr. Rock was 35%.

If any of these executives' employment with Targacept terminates for any reason, then each are entitled to receive a lump sum equal to any salary, bonus and other compensation earned and due but not yet paid.

In addition, if Targacept (or a successor) terminates the employment of Mr. Cullison, Ms. Hodges or Mr. Rock other than for defined "Just Cause," or if Mr. Cullison, Ms. Hodges or Mr. Rock terminates his or her employment within one year following the first occurrence of defined "Good Reason," then he or she is entitled to receive:

- severance following termination equal to his or her then-current monthly base salary for nine months except that any amount that would exceed the exemption under Section 409A of the Internal Revenue Code of 1986, as amended, would be payable in a lump sum two and one-half months following the end of Targacept's taxable year in which the termination occurs;
- six months acceleration of unvested options to purchase capital stock, restricted stock, or other equity-based awards;

- continuation of the health and life insurance benefits coverage provided to him or her as of the date of termination for the period during which he or she receives severance; and
- up to $10,000 in outplacement counseling services, if incurred by him or her and paid by Targacept within specified time periods.

If Targacept (or a successor) terminate the employment of Mr. Cullison, Ms. Hodges or Mr. Rock other than for defined "Just Cause," or if Mr. Cullison, Ms. Hodges or Mr. Rock terminates his or her employment within one year following the first occurrence of defined "Good Reason," and the termination is concurrent with or within 12 months following, or in connection with but prior to, a defined change in control of Targacept, then he or she is entitled to receive:

- severance following termination equal to his or her then-current monthly base salary and one-twelfth of his or her target annual bonus for twelve months except that any amount that would exceed the exemption under Section 409A of the Internal Revenue Code of 1986, as amended, would be payable in a lump sum two and one-half months following the end of Targacept's taxable year in which the termination occurs;
- full acceleration of all unvested options to purchase capital stock, restricted stock, or other equity-based awards;
- continuation of the health and life insurance benefits coverage provided to him or her as of the date of termination for the period during which he receives severance; and
- up to $10,000 in outplacement counseling services, if incurred by him or her and paid by Targacept within specified time periods.

"Just Cause" under each of Mr. Cullison's, Ms. Hodges' and Mr. Rock's employment agreements means his or her: (i) willful and material breach of the agreement and his or her continued failure to cure the breach for a specified period; (ii) conviction of, or entry of a plea of guilty or nolo contendere to a felony or a misdemeanor involving moral turpitude; (iii) willful commission of an act of fraud, breach of trust, or dishonesty including, without limitation, embezzlement, that results in material damage or harm to Targacept's business, financial condition or assets; (iv) intentional damage or destruction of substantial property of Targacept's; (v) violation of policies prohibiting employment discrimination or workplace harassment; or (vi) commission of any act (or omission) contrary to the ethical or professional standards expected in his profession. For Mr. Rock, "Just Cause" shall not mean any action or inaction to the extent it results from his required compliance with an ethical legal obligation applicable to his conduct as an attorney-at-law.

"Good Reason" under each of Mr. Cullison's, Ms. Hodges' and Mr. Rock's employment agreements means: (i) any purported termination of his or her employment that is not effected in accordance with the agreement; or (ii) any uncured failure to confer the benefits and compensation provided under the agreement or, in some cases, to comply with any other material provision of the agreement, in each case conditional on his or her providing written notice of the initial existence of Good Reason within 90 days and the Good Reason continuing to exist 30 days after the notice.

The employment agreement with each of Mr. Cullison, Ms. Hodges and Mr. Rock provides that he or she shall at all times maintain the confidentiality of Targacept's proprietary information and shall not engage in a business defined in the agreement as competitive to it until nine months after termination of employment with Targacept.

Change in Control

The employment agreements define "change in control" to mean, generally: (1) the acquisition by any person of 50% or more of Targacept's outstanding common stock; (2) the consummation of a merger or consolidation involving Targacept if the stockholders of Targacept immediately before such merger or consolidation do not, as a result of such merger or consolidation, own, directly or indirectly, more than 50% of the outstanding common

stock of the surviving company; (3) a sale or other disposition of all or substantially all of the assets of Targacept; or (4) a change in the majority composition of the board of directors not approved by a majority of the directors in office before the change.

Information Relating to Equity Awards

The following table contains information for each of Targacept's named executive officers regarding equity awards outstanding as of December 31, 2014.

OUTSTANDING EQUITY AWARDS AT 2014 FISCAL YEAR-END

	Option Awards				Stock Awards	
Name	Number of Securities Underlying Unexercised Option(#) Exercisable	Number of Securities Underlying Unexercised Options(#) Unexercisable	Option Exercise Price ($)	Option Expiration Date	Number of Shares of Stock That Have Not Vested (#)(7)	Market Value of Shares of Stock That Have Not Vested ($)(8)
Stephen A. Hill	200,000	200,000(1)	$ 4.50	12/2/2022		
	43,750	131,250(2)	$ 4.74	1/22/2024		
					175,000	$460,250
Alan A. Musso	49,107	—	$ 5.55	2/16/2015		
	37,324	—	$ 8.51	2/16/2015		
	36,094	—	$ 2.93	2/16/2015		
	50,000	—	$ 20.68	2/16/2015		
	46,875	—	$ 26.05	2/16/2015		
	62,500	—	$ 4.59	2/16/2015		
	28,437	—	$ 4.63	2/16/2015		
	10,312	—	$ 4.74	2/16/2015		
					—	$ 0
Mauri K. Hodges	6,198	—	$ 5.55	8/15/2016		
	18,390	—	$ 8.51	12/18/2017		
	28,001	—	$ 2.93	1/8/2019		
	35,000	—	$ 20.68	1/18/2020		
	30,500	—	$ 26.05	3/28/2021		
	41,250	18,750(3)	$ 4.59	5/3/2022		
	19,999	20,001(4)	$ 4.63	1/16/2023		
	10,000	30,000(2)	$ 4.74	1/22/2024		
					40,000	$105,200
Scott N. Cullison	1,079	—	$ 8.51	12/18/2017		
	4,000	—	$ 2.93	1/8/2019		
	24,375	—	$ 20.68	1/18/2020		
	500	—	$ 19.66	3/30/2020		
	24,750	—	$ 26.05	3/28/2021		
	15,723	7,147(3)	$ 4.59	5/3/2022		
	7,500	7,500(4)	$ 4.63	1/16/2023		
	6,562	8,438(5)	$ 5.70	5/29/2023		
	10,000	30,000(2)	$ 4.74	1/22/2024		
					40,000	$105,200
Patrick C. Rock	31,250	68,750(6)	$ 5.31	9/29/2023		
	11,250	33,750(2)	$ 4.74	1/22/2024		
					45,000	$118,350
Steven M. Toler	3,000	—	$ 8.99	9/27/2017		
	525	—	$ 8.51	12/18/2017		
	3,500	—	$ 7.27	6/29/2018		
	17,000	—	$ 2.93	1/8/2019		
	15,000	—	$ 20.68	1/18/2020		
	25,625	—	$ 26.05	3/28/2021		
	51,562	23,438(3)	$ 4.59	5/3/2022		
	22,499	22,501(4)	$ 4.63	1/16/2023		
	11,250	33,750(2)	$ 4.74	1/22/2024		
					45,000	$118,350

(1) The unexercisable portion of this option as of December 31, 2014 vests and becomes exercisable in equal installments on the last day of 9 consecutive calendar quarters beginning with March 31, 2015.
(2) The unexercisable portion of this option as of December 31, 2014 vests and becomes exercisable in equal installments on the last day of 12 consecutive calendar quarters beginning with March 31, 2015.
(3) The unexercisable portion of this option as of December 31, 2014 vests and becomes exercisable in equal installments on the last day of 5 consecutive calendar quarters beginning with March 31, 2015.
(4) The unexercisable portion of this option as of December 31, 2014 vests and becomes exercisable in equal installments on the last day of 8 consecutive calendar quarters beginning with March 31, 2015.
(5) The unexercisable portion of this option as of December 31, 2014 vests and becomes exercisable in equal installments on the last day of 9 consecutive calendar quarters beginning with March 31, 2015.
(6) The unexercisable portion of this option as of December 31, 2014 vests and becomes exercisable in equal installments on the last day of 10 consecutive calendar quarters beginning with March 31, 2015.
(7) Restricted stock granted on October 11, 2014, which vests in equal installments on December 31, 2015 and on December 31, 2016.
(8) Based on the closing price of Targacept's stock on December 31, 2014 ($2.63), the last trading day of the 2014 fiscal year.

2014 Option Exercises and Stock Vested

No NEO exercised any options to purchase Targacept's common stock or had restricted stock vest during fiscal 2014.

Payments Upon Termination in Certain Circumstances

Targacept's employment agreements with its named executive officers provide for payments and benefits if Targacept terminates (or if a successor following a change in control terminates) his or her employment other than for a defined Just Cause or, subject to certain timing and other conditions, he or she terminates his or her employment for a defined Good Reason. Certain of these employment agreements also provide for payments and benefits if a termination occurs in connection with a Change in Control. The terms "Just Cause," "Good Reason," and "Change in Control" are discussed above under "—Employment Agreements."

Under SEC rules, Targacept is required to estimate and quantify the payments and benefits that would be payable by it upon the occurrence of a triggering event, as if the triggering event had occurred as of the last business day of the last fiscal year. For each of Dr. Hill, Ms. Hodges and Mr. Rock and Mr. Cullison, the following table sets forth the estimated payments and benefits that would have become payable if the noted triggering event occurred on December 31, 2014, the last business day of Targacept's most recently completed fiscal year. These amounts reflect the additional payments or benefits each executive officer would be entitled to receive pursuant to his employment agreement, as such existed on December 31, 2014. The amounts shown reflect only the additional payments or benefits that an executive officer would have received upon the occurrence of the respective triggering events listed below. These amounts do not include the value of payments or benefits that would have been earned, or any amounts associated with equity awards that would have vested, absent the triggering event. Receipt of any of the payments and benefits set forth below is contingent on the delivery by the executive officer of a release and waiver of legal claims related to the employment relationship.

For Mr. Musso, who resigned from Targacept effective November 18, 2014, the table sets forth the payments and benefits that became payable upon the end of his employment with Targacept on November 18, 2014. Additionally, on March 11, 2015, Targacept terminated the employment of Steven M. Toler, and the table sets forth the payments and benefits that became payable upon the end of his employment with Targacept on March 11, 2015. Additionally, on May 13, 2015, Targacept terminated the employment of Scott N. Cullison, and the table sets forth the payments and benefits that will become payable upon the end of his employment with Targacept on May 31, 2015.

	SUMMARY OF POTENTIAL PAYMENTS UPON TERMINATION					
	Base Salary Continuation(1)	Severance Pay—Annual Bonus(2)	Value of Accelerated Options and Stock Awards(3) (4)	Continuation of Health, Dental and Life Insurance(5)	Outplacement Counseling Services	Total
Stephen A. Hill						
Termination Without Just Cause or By Executive For Good Reason (no Change in Control)	$ 515,000	$ —	$ —	$ 28,431	$ 10,000	$ 553,431
Termination Related to Change of Control	$ 772,500	$ 386,250	$ 460,250	$ 42,646	$ 10,000	$ 1,671,646
Voluntary/Death	$ 9,904	$ —	$ —	$ —	$ —	$ 9,904
Disability	$ 19,808	$ —	$ —	$ 28,047	$ —	$ 47,854
Alan A. Musso						
Voluntary	$ 15,305	$ —	$ —	$ —	$ —	$ 15,305
Mauri K Hodges						
Termination Without Just Cause or By Executive For Good Reason (no Change in Control)	$ 225,000	$ —	$ —	$ 9,639	$ 10,000	$ 244,639
Termination Related to Change of Control	$ 300,000	$ 90,000	$ 105,200	$ 12,852	$ 10,000	$ 518,052
Voluntary/Death	$ 3,029	$ —	$ —	$ —	$ —	$ 3,029
Disability	$ 14,567	$ —	$ —	$ 12,468	$ —	$ 27,035
Scott N. Cullison						
Termination Without Just Cause or By Executive For Good Reason (no Change in Control)	$ 157,500	$ —	$ —	$ 16,317	$ 10,000	$ 183,817
Termination Related to Change of Control	$ 210,000	$ 63,000	$ 105,200	$ 21,755	$ 10,000	$ 409,955
Voluntary/Death	$ 4,038	$ —	$ —	$ —	$ —	$ 4,038
Disability	$ 12,115	$ —	$ —	$ 21,371	$ —	$ 33,487
Patrick C. Rock						
Termination Without Just Cause or By Executive For Good Reason (no Change in Control)	$ 244,110	$ —	$ —	$ 8,986	$ 10,000	$ 263,096
Termination Related to Change of Control	$ 325,480	$ 113,918	$ 118,350	$ 11,981	$ 10,000	$ 579,729
Voluntary/Death	$ 6,259	$ —	$ —	$ —	$ —	$ 6,259
Disability	$ 12,518	$ —	$ —	$ 11,597	$ —	$ 24,116
Steven A. Toler						
Termination Without Just Cause or By Executive For Good Reason (no Change in Control)	$ 198,919	$ —	$ —	$ 18,490	$ 10,000	$ 227,409
Termination Related to Change of Control	$ 265,225	$ 79,568	$ 118,350	$ 24,653	$ 10,000	$ 497,796
Voluntary/Death	$ 5,100	$ —	$ —	$ —	$ —	$ 5,100
Disability	$ 15,301	$ —	$ —	$ 24,269	$ —	$ 39,570

(1) The amounts in this column reflect the continuation of base salary that is payable as described in the Employment Agreements section above and summarized below:

a) Dr. Hill would receive 12 months base salary continuation for termination without Just Cause or for Good Reason and would receive 18 months base salary continuation for termination related to a Change in Control.

b) Mr. Cullison, Ms. Hodges and Mr. Rock each would receive 9 months base salary continuation for termination without Just Cause or for Good Reason, and they each would receive 12 months base salary continuation for termination related to a Change in Control.

c) Voluntary termination without Good Reason or termination by death would result in the payment for accrued and unused vacation as of December 31, 2014.

d) Termination related to disability assumes that the disability occurred as of December 31, 2014 and therefore the severance includes 10 days salary continuance for Mr. Cullison, Ms. Hodges, and Dr. Toler and 5 days salary continuance for Dr. Hill and Mr. Rock, prior to commencement of third-party disability benefits, plus any accrued and unused vacation as of December 31, 2014.

(2) The amounts in this column reflect the severance payable that is based on the target annual bonus as described in the Employment Agreements section above and summarized below:

a) Dr. Hill would receive his then-current target annual bonus for 18 months for termination related to a Change in Control.

b) Mr. Cullison, Ms. Hodges and Mr. Rock each would receive his or her then-current target annual bonus for 12 months for termination related to a Change in Control.

(3) As of December 31, 2014, upon termination related to a Change in Control, there is full acceleration (100%) on the vesting of restricted stock awards for each of Dr. Hill, Mr. Cullison, Ms. Hodges and Mr. Rock. In addition, as of December 31, 2014, Dr. Hill, Mr. Cullison, Ms. Hodges and Mr. Rock each would receive full acceleration of unvested restricted stock awards upon termination without just cause or for good reason which is not related to a Change in Control.

a) These amounts are calculated based on the closing price of Targacept's common stock on the NASDAQ Global Select Market on December 31, 2014, which was $2.63.

(4) As of December 31, 2014, upon termination related to Change in Control, there is full acceleration (100%) on the vesting of stock options for each of Dr. Hill, Mr. Cullison, Ms. Hodges and Mr. Rock. In addition, as of December 31, 2014, Dr. Hill, Mr. Cullison, Ms. Hodges and Mr. Rock each would receive 6 months acceleration of unvested options upon termination without just cause or for good reason which is not related to a Change in Control.

a) These amounts are calculated based on the positive difference between (i) $2.63, the closing price of Targacept's common stock on the NASDAQ Global Select Market on December 31, 2014, and (ii) the exercise price per share of each option for which vesting would be accelerated. Stock options with an exercise price per share above $2.63 are disregarded for this purpose.

(5) The amounts in this column are calculated based on (a) the duration of the respective continuation periods and (b) the monthly premiums that Targacept pays for the medical, dental and life insurance coverage received by the named executive officer as of December 31, 2014. For purposes of termination related to disability, the benefits are estimated to be paid for up to 12 months provided the executive officer makes a timely election of continuation under COBRA (Consolidated Omnibus Budget Reconciliation Act of 1985) and continues to pay the required premiums.

EQUITY COMPENSATION PLAN INFORMATION

The following table contains information regarding securities authorized for issuance under Targacept's equity compensation plans in effect as of December 31, 2014. Targacept's equity compensation plans consist of the 2006 Plan and the 2000 Equity Incentive Plan. Targacept also granted a standalone inducement stock option to Dr. Hill upon commencement of his employment with Targacept in December 2012.

Plan Category	(a) Number of securities to be issued upon exercise of outstanding options, warrants and rights	(b) Weighted average exercise price of outstanding options, warrants and rights	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders	3,483,974	$ 9.44	3,149,324(1)
Equity compensation plans not approved by security holders	400,000(2)	4.50	—
Total	3,883,974	$ 8.93	3,149,324(1)

(1) Represents shares of common stock available for future issuance under the 2006 Plan upon the exercise of stock options that may be granted after December 31, 2014, restricted stock or other stock-based awards.

(2) Represents shares of common stock issuable pursuant to the inducement grant to Dr. Hill. On December 3, 2012, the first trading day after Dr. Hill's first day of employment with Targacept, Dr. Hill was granted an option to purchase 400,000 shares of Targacept common stock at an exercise price per share equal to $4.50, the closing price of Targacept's common stock on the NASDAQ Global Select Market on the grant date. The grant, which was not made under the 2006 Plan, was approved by both the Compensation Committee and the board of directors. The grant was made as an inducement material to Dr. Hill entering into employment with Targacept as contemplated by NASDAQ Listing Rule 5635(c)(4) and is governed by terms substantially similar to the terms of the 2006 Plan.

Of the 400,000 shares issuable pursuant to the option, 200,000 shares, or 50%, of this option are vested and exercisable as of December 31, 2014. The remaining 200,000 shares, or 50%, of this option are scheduled to vest and become exercisable in equal installments on the last day of each of the 8 consecutive calendar quarters beginning on March 31, 2015 and ending on December 31, 2016.

MATTERS BEING SUBMITTED TO A VOTE OF TARGACEPT STOCKHOLDERS

PROPOSAL NO. 1:
APPROVAL OF THE MERGER AGREEMENT AND THE ISSUANCE OF COMMON STOCK AND REDEEMABLE CONVERTIBLE NOTES IN THE MERGER

At the Targacept annual stockholders meeting, Targacept stockholders will be asked to approve the Merger Agreement and the issuance of Targacept common stock and redeemable convertible notes of Targacept by virtue of the merger as contemplated by the Merger Agreement. Immediately following the completion of the merger, it is expected that Catalyst's current equity holders would own in the aggregate approximately 58% of Targacept's outstanding common stock, options and warrants and Targacept's current equity holders are expected to own in the aggregate approximately 42% of Targacept's outstanding common stock, options and warrants.

The terms of, reasons for and other aspects of the Merger Agreement, the merger and the issuance of Targacept common stock and redeemable convertible notes of Targacept as contemplated by the Merger Agreement are described in detail in the other sections of this proxy statement/prospectus/information statement.

Vote Required

The affirmative vote of the holders of a majority of the shares of Targacept common stock having voting power present in person or represented by proxy at the Targacept annual stockholders meeting is required for approval of Proposal No. 1. This Proposal No. 1 is conditioned upon the approval of Proposal Nos. 2 and 3, and each of Proposal Nos. 1, 2 and 3 is a condition to the completion of the merger.

Recommendation of Targacept Board of Directors

THE TARGACEPT BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT THE TARGACEPT STOCKHOLDERS VOTE "FOR" PROPOSAL NO. 1 TO APPROVE THE MERGER AGREEMENT AND THE ISSUANCE OF TARGACEPT COMMON STOCK AND REDEEMABLE CONVERTIBLE NOTES OF TARGACEPT BY VIRTUE OF THE MERGER AS CONTEMPLATED BY THE MERGER AGREEMENT.

PROPOSAL NO. 2:
APPROVAL OF THE AMENDMENT TO THE CERTIFICATE OF INCORPORATION OF TARGACEPT TO EFFECT A REVERSE STOCK SPLIT

General

At the Targacept annual stockholders meeting, Targacept stockholders will be asked to approve an amendment to its restated certificate of incorporation effecting a reverse stock split of all issued and outstanding shares of Targacept common stock, at a ratio of one new share for seven (7) shares of outstanding Targacept common stock, which ratio was determined by the Targacept board of directors and mutually agreed to by Targacept and Catalyst. This proposal is referred to as the reverse stock split proposal. The Targacept board of directors has declared such proposed amendment to be advisable and has unanimously recommended that this proposed amendment be presented to Targacept stockholders for approval.

Upon the effectiveness of the proposed amendment effecting the reverse stock split, or the reverse split effective time, the shares of Targacept common stock outstanding immediately prior to the reverse split effective time will be combined and reclassified into a seventh of such shares and each Targacept stockholder will own one new share of Targacept common stock for every seven (7) shares of common stock held by such stockholder immediately prior to the reverse split effective time. The actions taken in connection with the reverse stock split will reduce the number of outstanding shares of Targacept common stock.

If the reverse stock split proposal is approved and subject to Targacept's obligations under the Merger Agreement to consult with Catalyst, the Targacept board of directors will have the sole discretion, but not the obligation, at any time within twelve (12) months of the date of the Targacept annual stockholders meeting and in accordance with Section 242(c) of the DGCL to elect, as it determines to be in the best interests of Targacept and its stockholders, whether to effect a reverse stock split at a ratio of 7-for-1. The Targacept board of directors believes that the reverse stock split proposal provides the Targacept board of directors with maximum flexibility to react to market conditions and, therefore, is in the best interests of Targacept and its stockholders.

If the reverse stock split proposal is approved the reverse stock split would become effective upon the filing of the proposed amendment with the Secretary of State of the State of Delaware to combine and reclassify seven (7) shares into one share of Targacept common stock. The Targacept board of directors' decision to effect a reverse stock split is based on a number of factors, including market conditions, existing and expected trading prices for Targacept common stock and the applicable listing requirements of The NASDAQ Global Select Market.

If and upon the effectiveness of the reverse stock split, the number of issued and outstanding shares of Targacept common stock held by each Targacept stockholder will be reduced. However, except for adjustments that may result from the treatment of fractional shares as described below, each Targacept stockholder will hold the same percentage of the outstanding Targacept common stock immediately following the reverse stock split as such Targacept stockholder held immediately prior to the reverse stock split. The par value of Targacept common stock would remain unchanged at $0.001 per share.

Purpose

The Targacept board of directors believes that a reverse stock split is desirable for the following reasons:

- the board of directors believes effecting the reverse stock split may be an effective means of maintaining the compliance of Targacept common stock with the listing requirements of The NASDAQ Global Market in the future; and
- the board of directors believes that a higher stock price may help generate investor interest in Targacept common stock.

Targacept common stock is currently listed on the NASDAQ Global Select Market. Targacept has filed an initial listing application with NASDAQ to seek listing on the NASDAQ Global Select Market upon the closing of the merger. According to applicable NASDAQ rules, an issuer must apply for initial listing following a transaction in which the issuer combines with a non-NASDAQ listed entity, resulting in a change of control of the issuer and potentially allowing the non-NASDAQ listed entity to obtain a NASDAQ listing. Furthermore, the listing standards of the NASDAQ Global Select Market will require Targacept to have, among other things, a $4.00 per share minimum bid price upon the closing of the merger. The Targacept board of directors expects that a reverse stock split of Targacept common stock will increase the market price of Targacept common stock so that Targacept is able to maintain compliance with the relevant NASDAQ listing requirements upon completion of the merger.

On July 15, 2015, the closing price of Targacept common stock was $2.72 per share. The Targacept board of directors also believes that an increase in the market price of Targacept common stock expected as a result of implementing a reverse stock split will improve the marketability and liquidity of Targacept common stock and will encourage interest and trading in Targacept common stock. Because of the trading volatility often associated with low-priced stocks, many brokerage houses and institutional investors have internal policies and practices that either prohibit them from investing in low-priced stocks or tend to discourage individual brokers from recommending low-priced stocks to their customers. Some of those policies and practices may function to make the processing of trades in low-priced stocks economically unattractive to brokers. Moreover, investors may also be dissuaded from purchasing lower priced stock because the brokerage commissions, as a percentage of the total

transaction, tend to be higher. The Targacept board of directors believes that the anticipated higher market price expected to result from a reverse stock split will reduce, to some extent, the negative effects of the policies and practices of institutional investors and brokerage houses described above on the liquidity and marketability of Targacept common stock.

Targacept cannot predict whether the reverse stock split will increase the market price of Targacept common stock. Furthermore, there can be no assurance that: (a) the market price per share following the reverse stock split would rise in proportion to the reduction in the number of shares of Targacept common stock outstanding due to the reverse stock split; (b) the market price per share following the reverse stock split would meet the minimum bid price required for continued listing on the NASDAQ Global Select Market or, if met, that the price would remain above the minimum for a sustained period of time; (c) Targacept would otherwise meet the requirements of the NASDAQ Stock Market for listing on the NASDAQ Global Select Market even if the per share market price of Targacept common stock after the reverse stock split meets the required minimum price; (d) the reverse stock split would result in a per share price that would attract brokers and investors who do not trade in lower-priced stock; and (e) the liquidity of Targacept common stock would not be harmed by the reduced number of shares outstanding after the reverse stock split.

The market price of Targacept common stock will also be based on Targacept's performance and other factors, some of which are unrelated to the number of shares outstanding. If the reverse stock split is effected and the market price of Targacept common stock declines, the percentage decline as an absolute number and as a percentage of Targacept overall market capitalization may be greater than would occur in the absence of the proposed reverse stock split.

Targacept's Discretion to Effect the Reverse Stock Split

If the reverse stock split proposal is approved by the Targacept stockholders, the proposed amendment will be effected, if at all, only after any required consultation with Catalyst with respect to the timing of such amendment and upon a determination by Targacept that a reverse stock split at a ratio of 7-for-1 remains in the best interests of Targacept and its stockholders based on the factors described above. Notwithstanding stockholders' approval of the reverse stock split proposal, the Targacept board of directors may, in its sole discretion, abandon the proposed amendment and determine prior to the effectiveness of any filing with the Secretary of State of the State of Delaware not to effect the reverse stock split of Targacept common stock, as permitted under Section 242(c) of the DGCL. If Targacept fails to effect the reverse stock split of Targacept common stock within one year of the date of the Targacept annual stockholders meeting, stockholder approval again would be required prior to implementing any reverse stock split.

Principal Effects of the Reverse Stock Split

The proposed form of amendment to the restated certificate of incorporation of Targacept effecting the reverse stock split is set forth in Annex E to this proxy statement/prospectus/information statement.

Targacept and Catalyst currently intend to effectuate the reverse stock split prior to the merger in order to maintain the listing of the combined company's common stock on the NASDAQ Global Select Market following the merger. However, the issuance of the convertible notes that are a component of the Pre-Closing Dividend may be effected without the reverse stock split.

If the reverse stock split is effected, it will be effected simultaneously for all outstanding shares of Targacept common stock and the reverse stock split ratio will be the same for all shares of Targacept common stock. The reverse stock split will affect all of Targacept's stockholders uniformly and will not affect any stockholder's percentage ownership interests in Targacept, except to the extent that the reverse stock split results in any of Targacept's stockholders owning a fractional share. Common stock combined pursuant to the reverse stock split

will remain fully paid and nonassessable. The number of stockholders of record will not be affected by the proposed reverse stock split (except to the extent that any stockholder holds only a fractional share interest after the application of the reverse stock split and receives cash for such interest). The reverse stock split will not affect the number of authorized shares of Targacept common stock, which will continue to be authorized pursuant to the certificate of incorporation of Targacept. Because the number of authorized shares of common stock will not be proportionally reduced by the reverse stock split, one of the effects of the reverse stock split will be to effectively increase the proportion of authorized shares which are unissued relative to those which are issued. This could result in Targacept's management being able to issue more shares without further stockholder approval, unless required by law.

The table below sets forth the anticipated effects of the reverse stock split at a ratio of 7-for-1. The number of shares in the table below are approximated, do not reflect the fractional shares that will result from the reverse stock split, and assume that Catalyst's shares will be converted at an Exchange Ratio estimated as of July 15, 2015.

	Number of authorized shares	Number of shares outstanding after the merger	Number of shares reserved under the terms of all convertible securities (including the convertible notes)	Number of authorized shares that will be available and unreserved
After 7-for-1 reverse stock split	100,000,000	11,480,593	4,324,725	84,194,682

Targacept has no current plans, arrangements or understandings to issue shares that will be available and unreserved after the completion of the merger and the other transactions described in this proxy statement/prospectus/information statement, other than in connection with the merger and to satisfy obligations under the combined company's warrants and employee stock options from time to time as such warrants and options are exercised.

Targacept will continue to be subject to the periodic reporting requirements of the Exchange Act after the reverse stock split. Targacept common stock will continue to be listed on the NASDAQ Global Select Market under the symbol "TRGT" (although, if the proposed reverse stock split is implemented, NASDAQ would likely add the letter "D" to the end of the trading symbol for a period of 20 trading days to indicate that the reverse stock split has occurred). After completion of the merger, Targacept expects to trade on the NASDAQ Global Select Market under the symbol "CBIO."

Procedure for Effecting Reverse Stock Split and Exchange of Stock Certificates

If the certificate of amendment is approved by Targacept's stockholders, and if Targacept still believes that a reverse stock split is in the best interests of Targacept and its stockholders, Targacept will file the certificate of amendment with the Secretary of State of the State of Delaware at such time as Targacept may determine to be the appropriate effective time for the reverse stock split. The reverse split would become effective at 5:00 p.m., Eastern Time, on the date of filing the certificate of amendment. Targacept may delay effecting the reverse stock split without resoliciting stockholder approval.

Beginning at the reverse split effective time, each certificate representing pre-split shares will be deemed for all corporate purposes to evidence ownership of post-split shares. Except as explained below with respect to fractional shares, at the reverse split effective time, shares of Targacept common stock issued and outstanding immediately prior to the reverse split effective time will be combined and reclassified, automatically and without any action on the part of the stockholders, into a lesser number of new shares of Targacept common stock in accordance with the reverse stock split ratio of 7-for-1.

As soon as practicable after the effective date of the reverse split, Targacept's stockholders will be notified that the reverse stock split has been effected. Targacept expects that its transfer agent will act as exchange agent for purposes of implementing the exchange of stock certificates. Holders of pre-split shares will be asked to surrender to the exchange agent certificates representing their pre-split shares in exchange for certificates

representing post-split shares in accordance with the procedures to be set forth in a letter of transmittal to be sent by Targacept. No new certificates will be issued to a stockholder until such stockholder has surrendered such stockholder's outstanding certificate(s) together with the properly completed and executed letter of transmittal to the exchange agent. Any pre-split shares submitted for transfer, whether pursuant to a sale or other disposition, or otherwise, will automatically be exchanged for post-split shares.

TARGACEPT STOCKHOLDERS SHOULD NOT DESTROY ANY STOCK CERTIFICATE(S) AND SHOULD NOT SUBMIT ANY CERTIFICATE(S) UNTIL REQUESTED TO DO SO.

Fractional Shares

No fractional shares will be issued in connection with the reverse stock split. Targacept's stockholders of record who otherwise would be entitled to receive fractional shares because they hold a number of pre-split shares not evenly divisible by the number of pre-split shares for which each post-split share is to be exchanged will be entitled, upon surrender to the exchange agent of certificates representing such shares, to a cash payment in lieu thereof at a price equal to the fraction to which the stockholder would otherwise be entitled multiplied by the closing price of the common stock on the NASDAQ Global Select Market on the last trading day prior to the effective date of the reverse split or, if such price is not available, the average of the last bid and asked prices of the common stock on such day or other price determined by the Targacept board of directors. The ownership of a fractional share will not give the holder thereof any voting, dividend or other rights except to receive payment therefor as described herein.

Stockholders should be aware that, under the escheat laws of the various jurisdictions where stockholders reside, where Targacept is domiciled, and where the funds will be deposited, sums due for fractional interests that are not timely claimed after the effective date of the split may be required to be paid to the designated agent for each such jurisdiction, unless correspondence has been received by Targacept or the exchange agent concerning ownership of such funds within the time permitted in such jurisdiction. Thereafter, stockholders otherwise entitled to receive such funds will have to seek to obtain them directly from the state to which they were paid.

Accounting Consequences

The par value per share of Targacept common stock will remain unchanged at $0.001 per share after the reverse stock split. As a result, at the effective time of the reverse split, the stated capital on Targacept's balance sheet attributable to Targacept common stock will be reduced proportionately based on the reverse stock split ratio, from its present amount, and the additional paid-in capital account will be increased for the amount by which the stated capital is reduced. After the reverse stock split (and disregarding the impact of shares of Targacept common stock issued in the merger), net income or loss per share, and other per share amounts will be increased because there will be fewer shares of Targacept common stock outstanding. In future financial statements, net income or loss per share and other per share amounts for periods ending before the reverse stock split will be recast to give retroactive effect to the reverse stock split.

Potential Anti-Takeover Effect

Although the increased proportion of unissued authorized shares to issued shares could, under certain circumstances, have an anti-takeover effect (for example, by permitting issuances that would dilute the stock ownership of a person seeking to effect a change in the composition of the Targacept board of directors or contemplating a tender offer or other transaction for the combination of Targacept with another company), the reverse stock split proposal is not being proposed in response to any effort of which Targacept is aware to accumulate shares of Targacept common stock or obtain control of Targacept, nor is it part of a plan by management to recommend a series of similar amendments to the Targacept board of directors and stockholders, other than to complete the merger with Catalyst. Other than the reverse stock split proposal and the other proposals set forth in this proxy statement/prospectus/information statement pertaining to the merger, the Targacept board of directors does not currently contemplate recommending the adoption of any other actions that could be construed to affect the ability of third parties to take over or change control of Targacept.

No Appraisal Rights

Under the DGCL, Targacept's stockholders are not entitled to appraisal rights with respect to the reverse stock split, and Targacept will not independently provide stockholders with any such right.

Material U.S. Federal Income Tax Consequences of the Reverse Stock Split

The following is a summary of certain material federal income tax consequences of the reverse stock split and does not purport to be a complete discussion of all of the possible federal income tax consequences of the reverse stock split and is included for general information only. Further, it does not address any state, local or foreign income or other tax consequences. For example, the state and local tax consequences of the reverse stock split may vary significantly as to each stockholder, depending upon the state in which such stockholder resides. The discussion is based on the current provisions of the Internal Revenue Code of 1986, as amended, or the Code, the U.S. Treasury Regulations promulgated thereunder and current administrative rulings and court decisions all of which are subject to change and to differing interpretations, possibly with retroactive effect. This summary also assumes that the pre-split shares were, and the post-split shares will be, held as capital assets within the meaning of Section 1221 of the Code (generally, property held for investment) and that each stockholder has provided Targacept with information to avoid the application of the backup withholding rules. This discussion does not address all U.S. federal income tax consequences relevant to the particular circumstances of a Targacept stockholder. In addition, it does not address consequences relevant to holders of Targacept stock that are subject to particular rules, including, without limitation:

- persons subject to the alternative minimum tax;
- persons whose functional currency is not the U.S. dollar;
- persons holding Targacept common stock as part of a hedge, straddle, or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- persons who are not U.S. Holders;
- banks, insurance companies, and other financial institutions;
- real estate investment trusts or regulated investment companies;
- brokers, dealers, or traders in securities;
- partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and investors therein);
- tax-exempt organizations or governmental organizations;
- persons deemed to sell Targacept common stock under the constructive sale provisions of the Code;
- persons who hold or receive Targacept common stock pursuant to the exercise of any employee stock options or otherwise as compensation; and
- tax-qualified retirement plans.

This discussion is limited to holders of Targacept common stock that are U.S. Holders. For the purposes of this discussion, a "U.S. Holder" is a beneficial owner of Targacept stock that, for U.S. federal income tax purposes, is or is treated as:

- an individual who is a citizen or resident of the United States;
- a corporation created or organized under the laws of the United States, any state thereof, or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust if either a court within the United States is able to exercise primary supervision over the administration of such trust and one or more United States persons (within the meaning of

Section 7701(a)(30) of the Code) have the authority to control all substantial decisions of such trust, or the trust has a valid election in effect under applicable Treasury Regulations to be treated as a United States person for U.S. federal income tax purposes.

If an entity treated as a partnership for U.S. federal income tax purposes holds Targacept common stock, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level.

THE TAX TREATMENT OF A STOCKHOLDER MAY VARY DEPENDING UPON THE PARTICULAR FACTS AND CIRCUMSTANCES OF SUCH STOCKHOLDER. EACH STOCKHOLDER IS URGED TO CONSULT WITH SUCH STOCKHOLDER'S OWN TAX ADVISOR WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR CIRCUMSTANCES AS WELL AS ANY U.S. FEDERAL, STATE, LOCAL OR FOREIGN TAX, ESTATE OR GIFT TAX CONSEQUENCES OF THE REVERSE STOCK SPLIT.

This discussion, under "Material U.S. Federal Income Tax Consequences of the Reverse Stock Split," constitutes the opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. as to the material U.S. federal income tax consequences of the reverse stock split to U.S. Holders of Targacept common stock, subject to the limitations, exceptions, assumptions, qualifications and beliefs described herein.

Assuming the Pre-Closing Dividend is respected as separate from the reverse stock split for U.S. federal income tax purposes (see "The Merger—Material U.S. Federal Income Tax Consequences of the Pre-Closing Dividend to Holders of Targacept Common Stock" beginning on page 101), the reverse stock split should constitute a "recapitalization" for U.S. federal income tax purposes. As a result, other than the cash payments in lieu of fractional shares discussed below, a U.S. Holder of Targacept stock generally should not recognize gain or loss upon such stockholder's exchange of pre-split shares for post-split shares pursuant to the reverse stock split. The aggregate tax basis of the post-split shares received pursuant to the reverse stock split, including any fraction of a post-split share deemed to have been received, will be the same as the stockholder's aggregate tax basis in the pre-split shares surrendered in the exchange, and the holding period in the post-split shares received should include the holding period in the pre-split shares surrendered in the exchange. Treasury Regulations provide detailed rules for allocating the tax basis and holding period of the pre-split shares surrendered to the post-split shares received in a recapitalization pursuant to a reverse stock split. U.S. Holders of Targacept stock that acquired their shares on different dates and at different prices should consult their tax advisors regarding the proper allocation of the tax basis and holding periods of such shares.

In general, stockholders who receive cash payments in lieu of fractional shares will recognize gain or loss equal to the difference between the amount of cash received and such holder's basis in the fractional share surrendered in exchange for cash. Such capital gain or loss will be long-term capital gain or loss if the stockholder's holding period for Targacept common stock surrendered exceeded one year at the reverse split effective time. Net capital gain (i.e., the excess of net long-term capital gain over net short-term capital loss) will be subject to U.S. federal income tax at reduced rates for non-corporate stockholders who receive cash. The deductibility of capital losses is subject to various limitations for corporate and non-corporate holders.

U.S. Holders who are individuals may be subject to a 3.8% Medicare surtax with respect to gain recognized in respect of cash received in lieu of fractional shares. Such Medicare surtax applies on the lesser of such individual's "net investment income" and modified adjusted income over a threshold amount of $200,000 ($250,000 for married taxpayers filing jointly, and $125,000 for married taxpayers filing separately). Net investment income means the excess of (1) the sum of (a) gross income from interest, dividends, annuities, royalties and rents, and net gain attributable to the disposition of property, unless such income is derived from a trade or business not described in (1)(b), and (b) other gross income from a trade or business that constitutes a passive activity or the trading of financial instruments or commodities, over (2) deductions properly allocable to such activities. The 3.8% Medicare surtax also applies to U.S. Holders that are estates and trusts on the lesser of their undistributed net income and the excess of their adjusted gross income over the dollar amount at which the highest tax bracket for estates and trusts begins for the tax year.

As discussed under "The Merger—Material U.S. Federal Income Tax Consequences of the Pre-Closing Dividend to Holders of Targacept Common Stock" beginning on page 101, it is possible that the reverse stock split and the Pre-Closing Dividend could be treated as a single transaction, in which case the material U.S. federal income tax consequences of the reverse stock split to you will differ than what is discussed above. Targacept intends to take the position that the Pre-Closing Dividend and the reverse stock split constitute separate transactions.

Targacept's view regarding the tax treatment of the Pre-Closing Dividend and the reverse stock split and the tax consequence of the reverse stock split is not binding on the Internal Revenue Service or the courts. Accordingly, each stockholder should consult with such stockholder's tax advisor with respect to all of the potential tax consequences to such stockholder of the reverse stock split.

A U.S. Holder of Targacept common stock may be subject to information reporting and backup withholding on cash paid in lieu of fractional shares in connection with the reverse stock split. A U.S. Holder will be subject to backup withholding if such holder is not otherwise exempt and such holder does not provide its taxpayer identification number on the appropriate form in the manner required or otherwise fails to comply with applicable backup withholding tax rules.

Vote Required

The affirmative vote of holders of a majority of the outstanding shares of Targacept common stock on the record date is required to approve the amendment to Targacept's restated certificate of incorporation to effect the reverse stock split at a ratio of 7-for-1. This Proposal No. 2 is conditioned upon the approval of Proposal Nos. 1 and 3, and each of Proposal Nos. 1, 2 and 3 is a condition to the completion of the merger.

Recommendation of Targacept Board of Directors

THE TARGACEPT BOARD OF DIRECTORS HAS DETERMINED AND BELIEVES THAT AUTHORIZING AN AMENDMENT TO TARGACEPT'S RESTATED CERTIFICATE OF INCORPORATION TO EFFECT A REVERSE STOCK SPLIT OF TARGACEPT'S ISSUED AND OUTSTANDING SHARES OF COMMON STOCK, PURSUANT TO WHICH SEVEN (7) SHARES OF OUTSTANDING TARGACEPT COMMON STOCK WOULD BE COMBINED AND RECLASSIFIED INTO ONE SHARE OF TARGACEPT COMMON STOCK, IN THE FORM ATTACHED AS ANNEX E TO THIS PROXY STATEMENT/PROSPECTUS/INFORMATION STATEMENT, IS ADVISABLE TO, AND IN THE BEST INTERESTS OF, TARGACEPT AND ITS STOCKHOLDERS AND HAS APPROVED SUCH AUTHORIZATION. THE TARGACEPT BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT TARGACEPT STOCKHOLDERS VOTE "FOR" PROPOSAL NO. 2 TO APPROVE THE AMENDMENT EFFECTING THE REVERSE STOCK SPLIT.

PROPOSAL NO. 3:
APPROVAL OF TARGACEPT NAME CHANGE

At the Targacept annual stockholders meeting, holders of Targacept stock will be asked to approve the amendment to the restated certificate of incorporation of Targacept to change the name of the corporation from "Targacept, Inc." to "Catalyst Biosciences, Inc." by filing the amendment to the restated certificate of incorporation at the effective time of the merger. The primary reason for the corporate name change is that management believes this will allow for brand recognition of Catalyst product candidates and product candidate pipeline following the completion of the merger. Targacept management believes that the current name will no longer accurately reflect the business of Targacept and the mission of Targacept subsequent to the completion of the merger.

Vote Required

The affirmative vote of holders of a majority of the outstanding shares of Targacept common stock on the record date is required to approve the amendment to restated certificate of incorporation to change the name from

"Targacept, Inc." to "Catalyst Biosciences, Inc." This Proposal No. 3 is conditioned upon the approval of Proposal Nos. 1 and 2, and each of Proposal Nos. 1, 2 and 3 is a condition to the completion of the merger.

Recommendation of Board of Directors

THE TARGACEPT BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT TARGACEPT STOCKHOLDERS VOTE "FOR" TARGACEPT PROPOSAL NO. 3 TO APPROVE THE NAME CHANGE.

PROPOSAL NO. 4:
APPROVAL OF 2015 STOCK INCENTIVE PLAN

General Information

The compensation committee and the board of directors of Targacept have approved the adoption of the Targacept, Inc. 2015 Stock Incentive Plan, or the 2015 Plan, subject to stockholder approval. If the stockholders approve the 2015 Plan, no further grants will be made under Targacept's current stock incentive plan, the Targacept, Inc. 2006 Stock Incentive Plan, or the 2006 Plan, which was amended and restated as of March 9, 2011 and further amended on December 7, 2012, March 13, 2013, and April 10, 2013, after the effective date of the 2015 Plan. If the stockholders do not approve the 2015 Plan, Targacept may continue to make awards under the 2006 Plan subject to the limits thereunder.

Stockholder approval of the 2015 Plan is required, among other things, in order to: (i) comply with NASDAQ rules requiring stockholder approval of equity compensation plans; (ii) allow the grant of incentive stock options to employee participants in the 2015 Plan; and (iii) give the compensation committee the ability to grant awards intended to qualify as "performance-based" compensation," thereby potentially preserving Targacept's tax deduction under Code Section 162(m).

The discussion that follows is qualified in all respects by reference to the terms of the 2015 Plan. Targacept will promptly provide, upon request and without charge, a copy of the full text of the 2015 Plan to each person to whom a copy of this proxy statement/prospectus/information statement is delivered. Requests should be directed to Targacept's Investor Relations Department at 100 North Main Street, Suite 1510, Winston-Salem, North Carolina 27101. An electronic copy of the 2015 Plan is also attached as Annex F to this proxy statement/prospectus/information statement on the SEC's website at www.sec.gov. Stockholders should refer to the 2015 Plan for more complete and detailed information about the 2015 Plan.

Targacept's board of directors believes that Targacept's employee equity compensation program, as implemented under the 2006 Plan and furthered under the 2015 Plan, allows Targacept to remain competitive with comparable companies in Targacept's industry by giving Targacept the resources to attract and retain talented individuals to contribute to Targacept's long-term success. The board of directors also believes that the 2015 Plan effectively provides substantial incentives to Targacept executives to achieve its business objectives and build stockholder value, thereby aligning the interests of Targacept's executives with the interests of its stockholders. Approval of the 2015 Plan will provide Targacept with the flexibility Targacept needs to use equity compensation and other incentive awards to attract, retain and motivate talented employees, directors and independent contractors who are important to Targacept's long-term growth and success.

"Best Practices" Integrated Into Targacept's Equity Compensation Program and the 2015 Plan

Targacept's compensation practices include a number of features that the board of directors believes reflect responsible compensation and governance practices and promote the interests of stockholders. Approval of the 2015 Plan will position Targacept to continue and expand these "best practices," including the following:

- **Limitation on Shares Issued**. Assuming the approval of the 2015 Plan, the maximum aggregate number of shares of common stock that Targacept may issue pursuant to awards granted under the

2015 Plan may not exceed the sum of (a) the lesser of (i) 5,000,000 or (ii) such number of shares that remain available under the 2006 Plan for the grant of awards as of the effective date of the 2015 Plan, plus (b) any shares subject to an award granted under the 2006 Plan and any other stock incentive plans maintained by Targacept (each, a "Prior Plan") which award is forfeited, canceled, terminated, expires or lapses for any reason (subject to adjustment for anti-dilution purposes). Targacept does not intend to increase the number of shares available for award grants under the 2015 Plan but plans to use only those shares that remain available under the 2006 Plan or become available under Prior Plans. The 2015 Plan also imposes limitations on the amount of participant awards. See "Share Limitations," below.

- **No Discounted Stock Options or SARs and Limit on Option and SAR Terms**. Under the 2015 Plan, stock options and stock appreciation rights, or SARs, must have an exercise price or base price, as applicable, equal to or greater than the fair market value of Targacept's common stock on the date of grant, consistent with current practices under the 2006 Plan. In addition, the term of an option or SAR is limited to 10 years.
- **No "Evergreen" Provision**. The 2015 Plan requires stockholder approval of any additional authorization of shares (other than adjustments for anti-dilution purposes), rather than permitting an annual "replenishment" of shares under a plan "evergreen" provision.
- **No Stock Option or SAR Repricings**. The 2015 Plan, like the 2006 Plan, prohibits the repricing of stock options or SARs without the approval of stockholders. This 2015 Plan provision applies to (i) direct repricings (lowering the exercise price of an option or the base price of an SAR), (ii) indirect repricings (exchanging an outstanding option or SAR that is underwater for cash, for options or SARs with an option price or base price less than that applicable to the original option or SAR, or for another equity award), and (iii) any other action that would be treated as a repricing under applicable stock exchange rules (subject to anti-dilution adjustments).
- **Robust Minimum Vesting and Award Practices**. The 2015 Plan generally imposes minimum vesting periods of one year. Historically, employee equity awards under the 2006 Plan consisted of stock options, with four-year vesting (and, more recently, restricted stock awards, with two-year vesting). Targacept believes that its vesting and award practices are responsible and further Targacept's recruitment and retention objectives.
- **Prudent Change of Control Provisions**. The 2015 Plan includes prudent "change of control" triggers: a change of control is deemed to have occurred only upon a change in beneficial ownership of 30% or more of Targacept's voting stock, completion (rather than stockholder approval) of a significant merger or other transaction, or a change in a majority of the Targacept board of directors within a 12-month period. In addition, the 2015 Plan generally provides that awards will vest upon a change of control only if (i) awards are not assumed, substituted or continued, or (ii) even if such awards are assumed, substituted or continued, a participant's employment is terminated without cause or, if provided by the participant's award agreement, for good reason within specified time periods related to the change of control.
- **Forfeiture and Recoupment Policies**. The 2015 Plan authorizes the compensation committee or the board of directors to require forfeiture and/or recoupment of plan benefits if a participant engages in certain types of detrimental conduct and to require that a participant be subject to any compensation recovery policy or similar policies that may apply to the participant or be imposed under applicable laws.
- **Administered by Independent Committee**. Like the 2006 Plan, the 2015 Plan will be administered by the compensation committee. All members of the compensation committee are intended to qualify as "independent" under NASDAQ listing standards, "non-employee directors" under Rule 16b-3 under the Exchange Act and "outside directors" under Code Section 162(m) to the extent required.

- **No Dividends or Dividend Equivalents on Unearned Performance Awards**. Like the 2006 Plan, dividends and dividend equivalents on performance-based awards issued under the 2015 Plan may only be paid if and to the extent the award has vested or been earned.
- **Efficient Use of Equity**. Targacept is committed to the efficient use of equity awards and is mindful of ensuring that Targacept's equity compensation program does not overly dilute its existing stockholders. Targacept's burn rate for each of the fiscal years 2014, 2013, and 2012 was 4.4%, 2.8% and 5.1%, respectively. Targacept's overhang as of July 15, 2015 was 20.4%, which was heavily influenced by outstanding stock options that are currently significantly underwater. If the 2015 Plan is approved, Targacept's overhang would remain the same as Targacept is not seeking approval of shares in addition to those currently authorized for issuance under the 2006 Plan. In addition, the 2015 Plan imposes specific award limitations on non-employee director awards.
- ***Reasonable Plan Duration***. If stockholders approve the 2015 Plan, Targacept currently anticipates that the shares available under the 2015 Plan will meet Targacept's expected needs through fiscal 2017. This assumption is based upon Targacept's historical grant practices; however, future circumstances and business needs may dictate a different result and the compensation committee retains the discretion to change its grant practices subject to the limits set forth in the 2015 Plan. By its terms, no awards may be granted under the 2015 Plan after [●], 2025.

***Burn Rate*.** Targacept's burn rate (a measure of shares subject to stock-based awards granted annually as a percentage of shares issued and outstanding) for each of the fiscal years 2014, 2013 and 2012 was 4.4%, 2.8% and 5.1%, respectively. These percentages are well below the ISS allowable cap of 5.99% in 2015 for Pharmaceuticals and Biotechnology companies. Targacept's three-year average annual burn rate of 4.1% approximates the 50th percentile of three-year average annual burn rates for its 2014 peer group, which are the companies currently used by the compensation committee for benchmarking executive compensation (as discussed above under "Targacept Executive Compensation—Compensation Discussion and Analysis").

***Overhang*.** Targacept's overhang (a measure of shares subject to stock-based awards outstanding or reserved for future grants as a percentage of shares issued and outstanding) as of May 15, 2015 was 20.5%. This percentage is heavily influenced by outstanding stock options that are currently significantly underwater. If the 2015 Plan is approved, Targacept's overhang remains the same as Targacept is not seeking approval of shares in addition to those that are currently authorized for issuance under the 2006 Plan or become available under Prior Plans.

Description of 2015 Plan

Share Limitations

The maximum aggregate number of shares of common stock that Targacept may issue pursuant to awards granted under the 2015 Plan may not exceed the sum of (a) the lesser of (i) 5,000,000 or (ii) such number of shares that remain available under the 2006 Plan for the grant of awards as of the effective date of the 2015 Plan, plus (b) any shares subject to an award granted under any Prior Plan which award is forfeited, canceled, terminated, expires or lapses for any reason. The number of shares subject to issuance under the 2015 Plan will therefore be limited to shares available under Prior Plans previously approved by Targacept stockholders, with such shares being "rolled into" the 2015 Plan. Targacept is not seeking approval for any additional new shares for issuance under the 2015 Plan. As of the effective date of the 2015 Plan, no further awards will be granted under the 2006 Plan, although outstanding awards granted under such plan will continue in accordance with their terms. Shares subject to terminated or forfeited awards granted under Prior Plans will roll into the 2015 Plan. The maximum aggregate number of shares of common stock that may be issued under the 2015 Plan pursuant to the grant of incentive stock options may not exceed the lesser of (a) 5,000,000 or (b) such number of shares that remain available under the 2006 Plan for the grant of awards as of the effective date of the 2015 Plan.

In addition, under the 2015 Plan, in any 12-month period, (i) no participant may be granted options and SARs that are not related to an option for more than 500,000 shares of common stock (or the equivalent value thereof

based on the fair market value per share of the common stock on the date of grant of an award); (ii) no participant may be granted awards other than options or SARs that are settled in shares of common stock for more than 500,000 shares of common stock (or the equivalent value thereof based on the fair market value per share of the common stock on the date of grant of an award); and (iii) no non-employee director may be granted awards for more than 150,000 shares of common stock (or the equivalent value thereof based on the fair market value per share of common stock on the date of grant).

The following are not included in calculating the 2015 Plan share limitations described above: (a) shares subject to an award, or any portion thereof, that is canceled, terminates, expires, is forfeited or lapses for any reason; (b) awards (other than SARs) settled in cash; (c) dividends, including dividends paid in shares; and (d) any shares subject to an award other than an option or SAR that are not issued for any reason, including by reason of failure to achieve maximum performance goals. The following shares of common stock may not again be made available for issuance as awards under the 2015 Plan: (a) shares withheld from an award or delivered by a participant to satisfy minimum tax withholding requirements for awards; (b) shares not issued or delivered as a result of the net settlement of an outstanding SAR or option; (c) shares used to pay the exercise price related to an outstanding option; and (d) shares repurchased on the open market with the proceeds of an option price. In addition, (a) shares issued under the 2015 Plan through the settlement, assumption or substitution of outstanding awards granted by another entity or obligations to grant future awards as a condition of or in connection with a merger, acquisition or similar transaction involving Targacept acquiring another entity will not reduce the maximum number of shares available for delivery under the 2015 Plan, and (b) available shares under a stockholder approved plan of an acquired company (as appropriately adjusted to reflect the transaction) may be used for awards under the 2015 Plan and will not reduce the maximum number of shares available under the 2015 Plan, subject to applicable stock exchange listing requirements.

The number of shares reserved for issuance under the 2015 Plan, the participant award limitations and the terms of awards may be adjusted in the event of an adjustment in the capital structure of Targacept (due to a merger, stock split, stock dividend or similar event). On [●], 2015, the closing sales price of the common stock as reported on NASDAQ was $[●] per share.

As of July 15, 2015, the maximum aggregate number of shares available for future grants under all Targacept-administered stock incentive plans was 4,146,054 shares. In addition, at that time, the aggregate number of shares subject to unvested outstanding full value awards was 376,350 shares and the aggregate number of shares subject to outstanding options was 2,855,344 shares. The weighted average exercise price of these options was $7.5668 and the weighted average remaining term was 4.68 years.

Purpose and Eligibility; Term

The purposes of the 2015 Plan are to encourage and enable selected employees, directors and independent contractors of Targacept and its affiliates to acquire or increase their holdings of Targacept's common stock and other equity-based interests in Targacept and/or to provide other incentive awards in order to promote a closer identification of their interests with those of Targacept and its stockholders, and to provide flexibility to Targacept in its ability to motivate, attract and retain the services of participants upon whose judgment, interest and special effort the successful conduct of its operation largely depends. If approved by the stockholders, the effective date of the 2015 Plan will be [●], 2015, and awards can be granted under the 2015 Plan until [●], 2025 or the Plan's earlier termination by the Targacept board of directors. Awards may be granted to selected employees, directors and independent contractors of Targacept or its affiliates in the discretion of the Administrator (as defined below under "Administration; Amendment and Termination"). As of July 15, 2015, approximately 10 employees, six directors and one independent contractor were eligible to be selected to participate in the 2015 Plan.

The 2015 Plan's purpose will be carried out by the granting of awards to selected participants. The types of awards authorized under the 2015 Plan include: options in the form of incentive options and/or nonqualified

options; SARs in the form of freestanding SARs and/or related SARs; restricted awards in the form of restricted stock awards and/or restricted stock units; performance awards in the form of performance shares and/or performance units; phantom stock awards; other stock-based awards; cash bonus awards; and/or dividend equivalent awards. Targacept discusses the material terms of each type of award below.

Administration; Amendment and Termination

The 2015 Plan provides that the plan will be administered by the Targacept board of directors or, upon its delegation, by the compensation committee. As a matter of practice, the compensation committee will administer the 2015 Plan, following delegation and subject to oversight by the Targacept board of directors. Unless the Targacept board of directors determines otherwise, the Targacept board of directors has sole authority to grant awards to non-employee directors. Each member of the compensation committee is intended to be independent under applicable Code Section 162(m), SEC Rule 16b-3 and Nasdaq listing standards. The Targacept board of directors and the compensation committee are referred to in this discussion collectively as the "Administrator."

Subject to the terms of the 2015 Plan, the Administrator's authority includes but is not limited to the authority to: (a) determine all matters relating to awards, including selection of individuals to be granted awards, the types of awards, the number of shares of common stock, if any, subject to an award, and all terms, conditions, restrictions and limitations of an award; (b) prescribe the form or forms of agreements evidencing awards granted under the 2015 Plan; (c) establish, amend and rescind rules and regulations for the administration of the 2015 Plan; (d) correct any defect, supply any omission or reconcile any inconsistency in the 2015 Plan or in any award or award agreement; and (e) construe and interpret the 2015 Plan, awards and award agreements made under the 2015 Plan, interpret rules and regulations for administering the 2015 Plan and make all other determinations deemed necessary or advisable for administering the 2015 Plan. Awards (other than other-stock based awards) granted to employees under the 2015 Plan will be subject to a minimum vesting period of one year (which may include installment vesting within such one-year period). Notwithstanding the foregoing, the Administrator may provide for (a) acceleration of vesting of all or a portion of an award in the event of the participant's death, disability or retirement or, in certain circumstances, upon a change of control of Targacept; (b) the grant of an award without a minimum vesting period or may accelerate the vesting of all or a portion of an award for any reason, but only with respect to awards for no more than an aggregate of 5% of the total number of authorized shares under the 2015 Plan; and (c) the grant of (i) awards to participants that have different vesting terms in the case of other stock based awards under the 2015 Plan or awards that are substituted for other equity awards in connection with mergers or similar transactions, (ii) awards as an inducement to be employed by Targacept or an affiliate or to replace forfeited awards from a former employer or (iii) awards that are granted in exchange for foregone cash compensation. In certain circumstances, the Targacept board of directors may expressly delegate to one or more officers of Targacept or a committee consisting of one or more directors who are also officers of Targacept the authority, within specified parameters, to grant awards, and to make other determinations under the 2015 Plan with respect to such awards, to persons who are not directors or officers subject to Section 16 under the Exchange Act or covered employees under Code Section 162(m).

The 2015 Plan and awards may be amended or terminated at any time by the Targacept board of directors, subject to the following: (a) stockholder approval is required of any 2015 Plan amendment if stockholder approval is required by applicable law, rule or regulation and (b) an amendment or termination of an award may not materially adversely affect the rights of a participant without the participant's consent. In addition, stockholder approval is required to amend the terms of outstanding options or SARs to reduce the option price or base price of such outstanding options or SARs; exchange outstanding options or SARs for cash, for options or SARs with an option price or base price that is less than the option price or base price of the original option or SAR, or for other equity awards at a time when the original option or SAR has an option price or base price, as the case may be, above the fair market value of the common stock; or take other action with respect to options or SARs that would be treated as a repricing under the rules of the principal stock exchange on which shares of Targacept's common stock are listed. The Administrator has unilateral authority to amend the 2015 Plan and any award to the extent necessary to comply with applicable laws, rules or regulations, or changes thereto. The Administrator may also adjust awards upon the occurrence of certain unusual or nonrecurring events, if the

Administrator determines that such adjustments are appropriate in order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the 2015 Plan or necessary or appropriate to comply with applicable laws, rules or regulations.

Types of Awards

A summary of the material terms of the types of awards authorized under the 2015 Plan is provided below.

Options. The 2015 Plan authorizes the grant of both incentive options and nonqualified options, both of which are exercisable for shares of Targacept's common stock, although incentive options may only be granted to Targacept's employees. The Administrator will determine the option price at which a participant may exercise an option. The option price must be no less than 100% of the fair market value per share of Targacept's common stock on the date of grant, or 110% of the fair market value with respect to incentive options granted to an employee who owns stock representing more than 10% of the total combined voting power of all classes of Targacept's stock or stock of its parent or subsidiary corporation, if any (except for certain options assumed or substituted in a merger or other transaction where the option price is adjusted in accordance with applicable tax regulations). Unless an individual award agreement provides otherwise, the option price may be paid in the form of cash or cash equivalent; in addition, except where prohibited by the Administrator or applicable laws, rules and regulations, payment may also be made by: (a) delivery of shares of common stock owned by the participant; (b) shares of common stock withheld upon exercise; (c) delivery of written notice of exercise to Targacept and delivery to a broker of written notice of exercise and irrevocable instructions to promptly deliver to Targacept the amount of sale or loan proceeds to pay the option price; (d) such other payment methods as may be approved by the Administrator and which are acceptable under applicable law; or (e) any combination of these methods. The Administrator will determine the term and conditions of an option and the period or periods during which, and conditions pursuant to which, a participant may exercise an option. The option term may not exceed 10 years, or five years with respect to incentive options granted to an employee who possesses more than 10% of the total combined voting power of all classes of Targacept's stock or stock of its parent or subsidiary corporation, if any. Options are generally subject to certain restrictions on exercise if the participant terminates employment or service unless an award agreement provides otherwise.

Stock Appreciation Rights. Under the terms of the 2015 Plan, SARs may be granted to the holder of an option (a "related option") with respect to all or a portion of the shares of common stock subject to the related option (a "related SAR") or may be granted separately (a "freestanding SAR"). The consideration to be received by the holder of an SAR may be paid in cash, shares of common stock (valued at fair market value on the date of the SAR exercise), or a combination of cash and shares of common stock, as determined by the Administrator. The holder of an SAR is entitled to receive from Targacept, for each share of common stock with respect to which the SAR is being exercised, consideration equal in value to the excess, if any, of the fair market value of a share of common stock on the date of exercise over the base price per share of such SAR. The base price may be no less than the fair market value per share of Targacept's common stock on the date the SAR is granted (except for certain SARs assumed or substituted in a merger or other transaction where the base price is adjusted in accordance with applicable tax regulations).

SARs are exercisable according to the terms established by the Administrator and stated in the applicable award agreement. Upon the exercise of a related SAR, the related option is deemed to be canceled to the extent of the number of shares of common stock for which the related SAR is exercised. Likewise, a related SAR will be canceled to the extent of the number of shares as to which a related option is exercised or surrendered. An SAR may not be exercised more than 10 years after it was granted, or such shorter period as may apply to related options in the case of related SARs. The Administrator will determine the extent, if any, to which a participant may exercise an SAR following termination of employment or service, which rights, if any, will be stated in an award agreement.

Restricted Awards. Under the terms of the 2015 Plan, the Administrator may grant restricted awards to participants in such numbers, upon such terms and at such times as the Administrator determines. Restricted

awards may be in the form of restricted stock awards or restricted stock units that are subject to certain conditions, which conditions must be met in order for such award to vest or be earned, in whole or in part, and no longer subject to forfeiture. Restricted stock awards are payable in shares of common stock. Restricted stock units may be payable in cash or shares of common stock, or partly in cash and partly in shares of common stock, in accordance with the terms of the 2015 Plan and the discretion of the Administrator.

The Administrator will determine the restriction period for each restricted award and will determine the conditions that must be met in order for a restricted award to be granted or to vest or be earned (in whole or in part). These conditions may include (but are not limited to) payment of a stipulated purchase price, attainment of performance objectives, continued service or employment for a certain period of time (or a combination of attainment of performance objectives and continued service), retirement, disability, death or any combination of conditions. In the case of restricted awards based upon performance criteria, or a combination of performance criteria and continued service, the Administrator will determine the performance factors to be used in valuing restricted awards, and these performance factors may vary from participant to participant and between groups of participants and will be based upon such corporate, business unit or division and/or individual performance factors and criteria as the Administrator determines. However, with respect to restricted awards payable to "covered employees" (generally the Chief Executive Officer and the three highest compensated named executive officers other than the Chief Executive Officer and the Chief Financial Officer) that are intended to qualify for the compensation deduction limitation exception available under Code Section 162(m), to the extent required under Code Section 162(m), the performance measures are limited to one or more of the performance factors described below under "Performance-Based Compensation—Code Section 162(m) Requirements." In addition, with respect to compensation that is not intended to qualify for the performance-based compensation exception under Code Section 162(m), the Administrator may approve performance objectives based on other criteria, which may or may not be objective. The Administrator has authority to determine whether and to what degree restricted awards have vested and been earned and are payable, as well as to establish and interpret the terms and conditions of restricted awards. If a participant's employment or service is terminated for any reason and all or any part of a restricted award has not vested or been earned pursuant to the terms of the 2015 Plan and the individual award agreement, the award will be forfeited, unless an award agreement or the Administrator provides otherwise.

Performance Awards. Under the terms of the 2015 Plan, the Administrator may grant performance awards to participants upon such terms and conditions and at such times as the Administrator determines. Performance awards may be in the form of performance shares and/or performance units. An award of a performance share is a grant of a right to receive shares of common stock or the cash value thereof (or a combination of both) that is contingent upon the achievement of performance or other objectives during a specified period and that has a value on the date of grant equal to the fair market value (as determined in accordance with the 2015 Plan) of a share of common stock. An award of a performance unit is a grant of a right to receive shares of common stock or a designated dollar value amount of common stock which is contingent upon the achievement of performance or other objectives during a specified period, and which has an initial value determined in a dollar amount established by the Administrator at the time of grant.

The Administrator will determine the performance period for each performance award and will determine the conditions that must be met in order for a performance award to be granted or to vest or be earned (in whole or in part). These conditions may include (but are not limited to) payment of a stipulated purchase price, attainment of performance objectives, continued service or employment for a certain period of time or a combination of such conditions. In the case of performance awards based upon specified performance objectives, the Administrator will determine the performance factors to be used in valuing performance awards, and these performance factors may vary from participant to participant and between groups of participants and will be based upon such corporate, business unit or division and/or individual performance factors and criteria as the Administrator determines. However, with respect to performance awards payable to covered employees that are intended to qualify as performance-based compensation under Code Section 162(m), to the extent required under Code Section 162(m), the performance factors are limited to one or more of the performance factors described below

under “Performance-Based Compensation—Code Section 162(m) Requirements.” In addition, with respect to compensation that is not intended to qualify for the performance-based compensation exception under Code Section 162(m), the Administrator may approve performance objectives based on other criteria, which may or may not be objective. The Administrator has authority to determine whether and to what degree performance awards have been earned and are payable, as well as to interpret the terms and conditions of performance awards. If a participant’s employment or service is terminated for any reason and all or any part of a performance award has not been earned pursuant to the terms of the 2015 Plan and the individual award agreement, the award will be forfeited, unless an award agreement or the Administrator provides otherwise.

Phantom Stock Awards. Under the terms of the 2015 Plan, the Administrator may grant phantom stock awards to participants in such numbers, upon such terms and at such times as the Administrator may determine. An award of phantom stock is an award of a number of hypothetical share units with respect to shares of Targacept’s common stock, with a value based on the fair market value of a share of common stock.

Subject to the terms of the 2015 Plan, the Administrator has authority to determine whether and to what degree phantom stock awards have vested and are payable and to interpret the terms and conditions of phantom stock awards. Upon vesting of all or part of a phantom stock award and satisfaction of other terms and conditions that the Administrator establishes, the holder of a phantom stock award will be entitled to a payment of an amount equal to the fair market value of one share of Targacept’s common stock with respect to each such phantom stock unit that has vested and is payable. Targacept may make payment in cash, shares of common stock or a combination of cash and stock, as determined by the Administrator. If a participant’s employment or service is terminated for any reason and all or any part of a phantom stock award has not vested and become payable pursuant to the terms of the 2015 Plan and the individual award, the participant will forfeit the award unless an award agreement or the Administrator provides otherwise.

Other Stock-Based Awards. The Administrator may grant other stock-based awards, which may be valued in whole or in part by reference to, or otherwise based on or related to, shares of common stock or awards for shares of common stock. Such other stock-based awards include, but are not limited to, awards granted in lieu of bonus, salary or other compensation, awards granted with vesting or performance conditions, and awards granted without being subject to vesting or performance conditions. Subject to the provisions of the 2015 Plan, the Administrator will determine the number of shares of common stock to be awarded to a participant under (or otherwise related to) such other stock-based awards, whether such awards may be settled in cash or shares of common stock (or a combination of both), and the other terms and conditions of such awards.

Cash Bonus Awards. The Administrator also may grant cash bonus awards under the 2015 Plan. Cash bonus awards will be based upon such corporate, business unit or division and/or individual performance factors and criteria as the Administrator determines. However, with respect to cash bonus awards payable to covered employees that are intended to qualify for the compensation deduction limitation exception available under Code Section 162(m), to the extent required under Code Section 162(m), the performance factors are limited to one or more of the performance factors described below under “Performance-Based Compensation—Code Section 162(m) Requirements.” The aggregate amount of compensation granted to any one participant in any 12-month period in respect of all cash bonus awards and payable in cash will not exceed $1,000,000.

Dividends and Dividend Equivalents. The Administrator may provide that awards granted under the 2015 Plan (other than options and SARs) earn dividends or dividend equivalents; however, dividends and dividend equivalents, if any, on unearned or unvested performance-based awards may not be paid (even if accrued) unless and until the underlying award (or portion thereof) has vested or been earned. Targacept may pay such dividends or dividend equivalents currently or credit such dividends or dividend equivalents to a participant’s account, subject to such additional restrictions and conditions as the Administrator may establish. Any dividends or dividend equivalents related to an award will be structured in a manner so as to avoid causing the award or related dividends or dividend equivalents to be subject to Code Section 409A or will otherwise be structured so that the award or dividends or dividend equivalents are in compliance with Code Section 409A.

Change of Control

Under the terms of the 2015 Plan, unless an individual employment agreement in effect prior to the effective date of the 2015 Plan provides otherwise, the following provisions will apply in the event of a change of control:

- To the extent that the successor or surviving company in the change of control event does not assume or substitute for an award (or in which Targacept is the ultimate parent corporation and does not continue the award) on substantially similar terms or with substantially equivalent economic benefits as awards outstanding under the Plan (as determined by the Administrator), (i) all outstanding options and SARs will become fully vested and exercisable, whether or not then otherwise vested and exercisable; and (ii) any restrictions, including but not limited to the restriction period, performance period and/or performance criteria applicable to any award other than options or SARs will be deemed to have been met, and such awards will become fully vested, earned and payable to the fullest extent of the original grant of the applicable award (or, in the case of performance-based awards, the earning of which is based on attaining a target level of performance, such awards will be deemed earned at target).
- In addition, in the event that an award is substituted, assumed or continued, the award will become vested (and, in the case of options and SARs, exercisable) in full and any restrictions, including but not limited to the restriction period, performance period and/or performance criteria applicable to any outstanding award other than options or SARs will be deemed to have been met and such awards will become fully vested, earned and payable to the fullest extent of the original award (or, in the case of performance-based awards, the earning of which is based on attaining a target level of performance, such awards will be deemed earned at target), if the employment or service of the participant is terminated within six months before (in which case vesting will not occur until the effective date of the change of control) or one year (or such other period after a change of control as may be stated in a participant's employment agreement, change in control agreement or similar agreement) after the effective date of a change of control if such termination of employment or service (a) is by Targacept not for cause or (b) if an award agreement so provides, is by the participant for good reason.

Transferability

Incentive options are not transferable other than by will or the laws of intestate succession or, in the Administrator's discretion, as may otherwise be permitted in accordance with Code Section 422 and related regulations. Nonqualified options and SARs are not transferable other than by will or the laws of intestate succession, except for transfers if and to the extent permitted by the Administrator in a manner consistent with the registration provisions of the Securities Act. Restricted awards, performance awards, phantom stock awards and other stock-based awards generally are not transferable other than transfers by will or the laws of intestate succession, and participants may not sell, transfer, assign, pledge or otherwise encumber shares subject to an award until the award has vested and all other conditions established by the Administrator have been met.

Forfeiture and Recoupment

As noted above, the 2015 Plan authorizes the Administrator to require forfeiture and recoupment of plan benefits if a participant engages in certain types of detrimental conduct and to require that a participant be subject to any compensation recovery policy or similar policies that may apply to the participant or be imposed under applicable laws.

Performance-Based Compensation—Code Section 162(m) Requirements

The 2015 Plan is structured with the intent of allowing the compensation committee to pay compensation to "covered employees" (as described above, the Chief Executive Officer and the three highest compensated named executive officers other than the Chief Executive Officer and the Chief Financial Officer) that may be exempt from Code Section 162(m). The compensation committee has the discretion to grant performance awards that are not intended to satisfy the requirements for "performance-based" compensation under Code Section 162(m). Code Section 162(m) generally prohibits a public corporation from deducting more than $1,000,000 a year for

compensation paid to each of the covered employees of the corporation unless the compensation qualifies as performance-based compensation. In order to qualify as performance-based compensation, the compensation must be contingent on achieving pre-established objective performance goals determined and certified by a committee comprised of outside directors. All of the members of Targacept's compensation committee, which will have the discretion to grant performance awards to covered employees, are outside directors under Code Section 162(m) standards.

In addition, performance-based compensation will not qualify for the Section 162(m) compensation deduction limitation exclusion unless the material terms (or changes in material terms) of the performance goals are disclosed to and approved by the stockholders before the compensation is paid. Material terms include: (a) the employees eligible to receive compensation; (b) a description of the business criteria on which the performance goal is based; and (c) either the maximum amount of the compensation to be paid if the performance goal is met or the formula used to calculate the amount of compensation if the performance goal is met. With respect to awards payable to covered employees that are intended to qualify for the compensation deduction limitation under Code Section 162(m), to the extent required under Code Section 162(m), the performance measures are limited to any one or more of the following: (a) cash flow; (b) return on equity; (c) return on assets; (d) earnings per share; (e) achievement of clinical development or regulatory milestones; (f) operations expense efficiency milestones; (g) consolidated earnings before or after taxes (including earnings before interest, taxes, depreciation and amortization); (h) net income; (i) operating income; (j) book value per share; (k) return on investment; (l) return on capital; (m) improvements in capital structure; (n) expense management; (o) profitability of an identifiable business unit or product; (p) maintenance or improvement of profit margins; (q) stock price or total stockholder return; (r) market share; (s) revenues or sales; (t) costs; (u) working capital; (v) economic wealth created; (w) strategic business criteria; (x) efficiency ratio(s); (y) achievement of division, group, function or corporate financial, strategic or operational goals; and (z) comparisons with stock market indices or performances of metrics of peer companies. The eligibility and participant award limitations of the 2015 Plan are further described under this Proposal No. 4 under the sub-headings "Purpose and Eligibility; Term"; and "Share Limitations."

Certain U.S. Federal Income Tax Consequences

The following summary generally describes the principal U.S. federal (and not foreign, state or local) income tax consequences of awards granted under the 2015 Plan as of the date of this proxy statement/prospectus/information statement. The summary is general in nature and is not intended to cover all tax consequences that may apply to a particular employee or to Targacept. The provisions of the Code and related regulations concerning these matters are complicated and their impact in any one case may depend upon the particular circumstances.

Incentive Options. Incentive options granted under the 2015 Plan are intended to qualify as incentive stock options under Code Section 422. Pursuant to Code Section 422, the grant and exercise of an incentive stock option generally will not result in taxable income to the participant (with the possible exception of alternative minimum tax liability) if the participant does not dispose of shares received upon exercise of such option less than one year after the date of exercise and two years after the date of grant, and if the participant has continuously been Targacept's employee from the date of grant to three months before the date of exercise (or 12 months in the event of death or disability). However, the excess of the fair market value of the shares received upon exercise of the incentive option over the option price for such shares generally will constitute an item of adjustment in computing the participant's alternative minimum taxable income for the year of exercise. Thus, certain participants may increase their federal income tax liability as a result of the exercise of an incentive option under the alternative minimum tax rules of the Code.

Targacept generally will not be entitled to a deduction for income tax purposes in connection with the exercise of an incentive option. Upon the disposition of shares acquired upon exercise of an incentive option, the participant will be taxed on the amount by which the amount realized upon such disposition exceeds the option price, and such amount will be treated as capital gain or loss.

If the holding period requirements for incentive option treatment described above are not met, the participant will be taxed as if he or she received compensation in the year of the disposition. The participant must treat gain realized in the premature disposition as ordinary income to the extent of the lesser of: (a) the fair market value of the stock on the date of exercise minus the option price or (b) the amount realized on disposition of the stock minus the option price. Any gain in excess of these amounts may be treated as capital gain. Targacept generally will be entitled to a corresponding income tax deduction to the extent that the amount represents reasonable compensation and an ordinary and necessary business expense, subject to any required income tax reporting.

Pursuant to the Code and the terms of the 2015 Plan, in no event can there first become exercisable by a participant in any one calendar year incentive options granted by Targacept with respect to shares having an aggregate fair market value (determined at the time an option is granted) greater than $100,000. To the extent an incentive option granted under the 2015 Plan exceeds this limitation, it will be treated as a nonqualified option. In addition, no incentive option may be granted to an individual who owns, immediately before the time that the option is granted, stock possessing more than 10% of the total combined voting power of all classes of stock of Targacept, unless the option price is equal to or exceeds 110% of the fair market value of the stock and the option period does not exceed five years.

Nonqualified Options. The grant of a nonqualified option should not result in taxable income to a participant or a tax deduction to Targacept. The difference between the fair market value of the stock on the date of exercise and the option price will constitute taxable ordinary income to the participant on the date of exercise. Targacept generally will be entitled to a corresponding income tax deduction to the extent that the amount represents reasonable compensation and an ordinary and necessary business expense, subject to any required income tax reporting. The participant's basis in shares of common stock acquired upon exercise of an option will equal the option price plus the amount of income taxable at the time of exercise. Any subsequent disposition of the stock by the participant will be taxed as a capital gain or loss to the participant, and will be long-term capital gain or loss if the participant has held the stock for more than one year at the time of sale.

Stock Appreciation Rights. For federal income tax purposes, the grant of an SAR should not result in taxable income to a participant or a tax deduction to Targacept. Upon exercise, the amount of cash and fair market value of shares received by the participant, less cash or other consideration paid (if any), is taxed to the participant as ordinary income, and Targacept will generally be entitled to a corresponding income tax deduction to the extent the amount represents reasonable compensation and an ordinary and necessary business expense, subject to any required income tax reporting.

Restricted Stock Awards. The grant of a restricted stock award will not result in taxable income to the participant or a tax deduction to Targacept for federal income tax purposes, unless the restrictions on the stock do not present a substantial risk of forfeiture or the award is transferable, as defined under Code Section 83. In the year that the restricted stock is no longer subject to a substantial risk of forfeiture, or the award is transferable, the fair market value of such shares at such date and any cash amount awarded, less cash or other consideration paid (if any), will be included in the participant's ordinary income as compensation, except that, in the case of restricted stock issued at the beginning of the restriction period, the participant may elect to include in his or her ordinary income as compensation at the time the restricted stock is awarded, the fair market value of such shares at such time, less any amount paid for the shares. Targacept generally will be entitled to a corresponding income tax deduction to the extent that the amount represents reasonable compensation and an ordinary and necessary business expense, subject to any required income tax reporting.

Restricted Stock Units, Performance Awards, Phantom Stock Awards, Other Stock-Based Awards, Cash Bonus Awards and Dividend Equivalents. The grant of a restricted stock unit, performance award, phantom stock award, other stock-based awards, cash bonus award opportunity or a dividend equivalent award generally should not result in taxable income to the participant or a tax deduction to Targacept for federal income tax purposes. However, the participant will recognize income on account of the settlement of such award. The income recognized by the participant at that time will be equal to any cash that is received and the fair market value of any stock that is received in settlement of the award. Targacept generally will be entitled to a corresponding

income tax deduction upon the settlement of such an award equal to the ordinary income recognized by the participant to the extent that the amount represents reasonable compensation and an ordinary and necessary business expense, subject to any required income tax reporting.

Code Section 409A. Awards granted under the 2015 Plan may be subject to Code Section 409A and related regulations and other guidance. Code Section 409A imposes certain requirements on compensation that is deemed under Code Section 409A to involve deferred compensation. If Code Section 409A applies to the 2015 Plan or any award, and the 2015 Plan and award do not, when considered together, satisfy the requirements of Code Section 409A during a taxable year, the participant will have ordinary income in the year of non-compliance in the amount of all deferrals subject to Code Section 409A to the extent that the award is not subject to a substantial risk of forfeiture. The participant will be subject to an additional tax of 20% on all amounts includable in income and may also be subject to interest charges under Code Section 409A. Targacept does not have any responsibility to take, or to refrain from taking, any actions in order to achieve a certain tax result for any participant.

Performance-based Compensation—Section 162(m) Requirements. There is no guarantee that compensation paid to covered employees under the 2015 Plan will be Section 162(m)-compliant. However, the 2015 Plan is structured with the intent of allowing the compensation committee to pay compensation exempt from Code Section 162(m) in order to preserve, to the extent practicable, Targacept's ability to claim a tax deduction for such awards under the 2015 Plan to covered employees. Code Section 162(m) generally denies an employer a deduction for compensation paid to covered employees of a publicly held corporation in excess of $1,000,000 unless the compensation is exempt from the $1,000,000 limitation because it is performance-based compensation. Subject to Code Section 162(m) and certain reporting requirements, Targacept may be entitled to an income tax deduction with respect to the amount of compensation includable as income to the participant.

New Plan Benefits

No awards will be granted under the 2015 Plan unless it is approved by Targacept stockholders. If the 2015 Plan is approved, the selection of individuals who will receive awards under the 2015 Plan, and the amount of any such awards, is not yet determinable due to vesting, performance and other requirements. Therefore, it is not possible to predict the benefits or amounts that will be received by particular individuals or groups of participants under the 2015 Plan.

In 2014, Targacept granted awards under the 2006 Plan to Targacept's named executive officers, outside directors and certain other eligible employees and independent contractors. The 2014 grants to the named executive officers are reflected in the 2014 Grants of Plan-Based Awards table above. The equity grant program for Targacept's non-employee directors is described under the section entitled "Targacept Executive Compensation—Compensation of Directors" beginning on page 148.

The board of directors believes that approval of the 2015 Plan is in the best interests of Targacept. The 2015 Plan will allow Targacept to continue the purposes of Targacept's past equity compensation programs and serve as a powerful recruitment and retention tool in a competitive industry. The board of directors further believes that substantial equity ownership encourages management to take actions favorable to the long-term interests of Targacept and its stockholders. Accordingly, equity-based compensation makes up a significant portion of the overall compensation of Targacept's executive management team. The board of directors believes that the adoption of the 2015 Plan will allow Targacept to continue the use of equity compensation as a component of a competitive, but measured, overall compensation program.

Vote Required

The affirmative vote of holders of a majority of the shares of Targacept common stock having voting power outstanding on the record date for the Targacept annual stockholders meeting is required to approve the 2015 Plan.

Recommendation of Targacept Board of Directors

THE TARGACEPT BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT THE TARGACEPT STOCKHOLDERS VOTE "FOR" APPROVAL OF THE 2015 STOCK INCENTIVE PLAN.

PROPOSAL NO. 5:
ELECTION OF TARGACEPT DIRECTORS

The Targacept board of directors nominated Errol B. De Souza, Ph.D. for election as a Class III director at the Targacept annual stockholders meeting. The Targacept board of directors currently consists of six members, classified into three classes as follows: (a) Errol B. De Souza, Ph.D. constitutes a class with a term ending at the 2015 Targacept annual stockholders meeting, or the Class III director; (b) Charles A. Blixt and Alan W. Dunton, M.D. constitute a class with terms ending at the 2016 annual stockholders meeting, or the Class I directors; and (c) Julia R. Brown, Stephen A. Hill, M.D. and John P. Richard constitute a class with terms ending at the 2017 annual stockholders meeting, or the Class II directors. At each Targacept annual stockholders meeting, directors nominated to the class of directors whose term expires at the annual meeting are elected for a full three-year term to succeed those directors whose terms are expiring. Nominees for directors to classes not expiring at the Targacept annual stockholders meeting are elected for terms that coincide with the remaining term of the respective class.

The Targacept board of directors has voted (a) to set the size of the Targacept board of directors at seven members, and (b) to nominate Errol B. De Souza, Ph.D. for election at the Targacept annual stockholders meeting as a Class III director for a term of three years to serve until the 2018 Targacept annual stockholders meeting, and until his successor has been elected and qualified or until his earlier death, retirement, resignation or removal; provided, however, that, if Proposal Nos. 1, 2 and 3 are adopted and the merger is completed, the Targacept board of directors will consist of the seven persons identified in this proxy statement/prospectus/information statement. Unless authority to vote for a particular nominee is withheld, the shares represented by proxy will be voted "**FOR**" the election as directors of Errol B. De Souza, Ph. D as a Class III director. However, if Proposal Nos. 1, 2 and 3 are adopted and the merger is completed, the Targacept board of directors will consist of the seven persons identified in this proxy statement/prospectus/information statement under "Management Following the Merger—Executive Officers and Directors—Executive Officers and Directors of the Combined Company Following the Merger" beginning on page 272. In the event that Dr. De Souza becomes unable or unwilling to serve, the shares represented by proxy will be voted for the election of such other person as the Targacept board of directors may recommend in his place. Targacept has no reason to believe that Dr. De Souza will be unable or unwilling to serve as a director.

Pursuant to the terms of the Merger Agreement, it is anticipated the director classes of the combined company board of directors will be as follows:

- Class I directors (term ending 2016): Dr. Hill and Mr. Lawlor;
- Class II directors (term ending 2017): Mr. Richard and Dr. Himawan; and
- Class III directors (term ending 2018): Dr. De Souza, Dr. Selick, Ph.D. and Dr. Usman.

Vote Required

The affirmative vote of a plurality of the votes of the shares present in person or represented by proxy at the Targacept annual stockholders meeting and entitled to vote on the election of directors is required to elect the nominee as a Class III director.

Recommendation of Targacept Board of Directors

THE TARGACEPT BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT TARGACEPT STOCKHOLDERS ELECT ERROL B. DE SOUZA, PH. D AS CLASS III DIRECTOR, AND PROXIES SOLICITED BY THE BOARD OF DIRECTORS WILL BE VOTED IN FAVOR THEREOF UNLESS A STOCKHOLDER HAS INDICATED OTHERWISE ON THE PROXY; PROVIDED, HOWEVER, THAT, IF PROPOSAL NOS. 1, 2 AND 3 ARE ADOPTED AND THE MERGER IS CONSUMMATED, THE TARGACEPT BOARD OF DIRECTORS WILL BE RECONSTITUTED AS DESCRIBED IN THIS PROXY STATEMENT/ PROSPECTUS/INFORMATION STATEMENT.

PROPOSAL NO. 6:
ADVISORY VOTE TO APPROVE THE COMPENSATION OF TARGACEPT'S NAMED EXECUTIVE OFFICERS AS DISCLOSED IN THIS PROXY STATEMENT/PROSPECTUS/INFORMATION STATEMENT

As required by Section 14A of the Exchange Act, Targacept is providing its stockholders with an opportunity to approve, on an advisory basis, the compensation of the Targacept named executive officers (as defined in Item 402 of Regulation S-K of the Exchange Act) as disclosed in this proxy statement/prospectus/information statement in accordance with the compensation disclosure rules of the SEC.

Prior to casting your vote on this proposal, you are encouraged to read the section entitled "Targacept Executive Compensation" beginning on page 148 for a detailed discussion of Targacept's policies and practices relating to the compensation of its named executive officers.

Targacept's compensation committee believes that the objectives of Targacept's executive compensation program, as relates to its named executive officers, are appropriate for a company of Targacept's size and stage of development and that its compensation policies and practices help meet those objectives. In addition, Targacept's compensation committee believes that its executive compensation program, as it relates to Targacept's named executive officers, achieves an appropriate balance between fixed compensation and variable incentive compensation, pays for performance and promotes an alignment between the interests of Targacept's named executive officers and its stockholders. Accordingly, Targacept is asking its stockholders to approve the compensation of Targacept's named executive officers. This advisory vote is not intended to be limited or specific to any particular element of compensation, but rather to cover the overall compensation of Targacept's named executive officers and the compensation policies and practices described in this proxy statement/prospectus/information statement as it relates to Targacept's named executive officers.

Targacept's board of directors unanimously recommends that Targacept's stockholders vote "**FOR**" the following resolution at the meeting:

> "RESOLVED that the compensation paid to Targacept's named executive officers, as disclosed in this proxy statement/prospectus/information statement pursuant to the compensation disclosure rules of the Securities and Exchange Commission, including the Compensation Discussion and Analysis, compensation tables and related discussion, is hereby APPROVED."

Vote Required

This resolution will be approved, on an advisory basis, by the affirmative vote of a majority of the shares present in person or represented by proxy at the meeting and entitled to vote on the proposal. Because this proposal is advisory, the results of the vote will not be binding to Targacept, the board of directors or the compensation committee. However, Targacept's compensation committee values the views of its stockholders and will consider the outcome of the vote in connection with future compensation decisions.

Recommendation of Targacept Board of Directors

THE TARGACEPT BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT TARGACEPT STOCKHOLDERS VOTE "FOR" APPROVAL OF THE COMPENSATION OF EXECUTIVE OFFICERS AS DISCLOSED IN THIS PROXY STATEMENT/PROSPECTUS/INFORMATION STATEMENT, AND PROXIES SOLICITED BY THE BOARD WILL BE VOTED IN ACCORDANCE WITH THE BOARD'S RECOMMENDATION UNLESS A STOCKHOLDER INDICATES OTHERWISE ON THE PROXY.

TARGACEPT PROPOSAL NO. 7:
ADVISORY VOTE ON GOLDEN PARACHUTE COMPENSATION

As required by Section 14A of the Exchange Act and Rule 14a-21(c) promulgated thereunder, Targacept is providing its stockholders with an opportunity to approve, on an advisory basis, the "golden parachute" compensation that Targacept's named executive officers will receive in connection with the merger discussed in "The Merger—Golden Parachute Compensation" beginning on page 88.

Targacept's board of directors unanimously recommends that Targacept's stockholders vote "FOR" the following resolution at the meeting:

> "RESOLVED, that the compensation that may be paid or become payable to Targacept's named executive officers in connection with the merger, as disclosed in the table entitled "Golden Parachute Compensation" pursuant to Item 402(t) of Regulation S-K, including the associated narrative discussion, and the agreements or understandings pursuant to which such compensation may be paid or become payable, are hereby APPROVED."

Vote Required

This resolution will be approved, on an advisory basis, by the affirmative vote of a majority of the shares present in person or represented by proxy at the meeting and entitled to vote on the proposal. Because this proposal is advisory, the results of the vote will not be binding to Targacept, the board of directors or the compensation committee. Approval of this proposal is not a condition to completion of the merger. Therefore, if the merger is approved by the stockholders and completed, "golden parachute" compensation with the named executive officers will be payable, subject only to the terms of such compensation contracts and arrangements, regardless of the outcome of this advisory vote.

Recommendation of Targacept Board of Directors

THE TARGACEPT BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT TARGACEPT STOCKHOLDERS VOTE "FOR" APPROVAL OF THE COMPENSATION THAT MAY BE PAID OR BECOME PAYABLE TO TARGACEPT'S NAMED EXECUTIVE OFFICERS IN CONNECTION WITH THE MERGER AS DESCRIBED IN THIS PROXY STATEMENT, AND PROXIES SOLICITED BY THE BOARD WILL BE VOTED IN ACCORDANCE WITH THE BOARD'S RECOMMENDATION UNLESS A STOCKHOLDER INDICATES OTHERWISE ON THE PROXY.

PROPOSAL NO. 8:
RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The audit committee of the Targacept board of directors has appointed Ernst & Young LLP, independent public accountants, to audit Targacept's financial statements for the year ending December 31, 2015. Ernst & Young LLP, an independent registered accounting firm, has served as Targacept's independent auditor since 2000. A

representative from Ernst & Young LLP is expected to be present at the Targacept annual stockholders meeting and will be available to respond to appropriate questions and will have the opportunity to make a statement if he or she desires to do so. Targacept is soliciting stockholder ratification of the appointment of Ernst & Young LLP, although stockholder ratification is not required by law. If the appointment of Ernst & Young LLP is not ratified at the meeting, the audit committee will consider whether to appoint a different independent registered public accounting firm.

The following table sets forth the fees for professional services rendered by Ernst & Young LLP in connection with the audits of Targacept's financial statements for the years ended December 31, 2014 and 2013, and for other services rendered by Ernst & Young LLP during those periods.

	Fiscal 2014	Fiscal 2013
Audit Fees(1):	$360,000	$343,900
Audit-Related Fees(2):	7,420	—
Tax Fees(3):	—	—
All Other Fees(4):	1,735	1,500
Total Fees:	$369,155	$345,000

(1) Audit Fees include fees billed for the applicable year for services: (a) in connection with the audit of Targacept's financial statements included in its annual report on Form 10-K and the review of Targacept's financial statements included in its quarterly reports on Form 10-Q; (b) in connection with the audit of Targacept's internal control over financial reporting; (c) in connection with its registration statements on Form S-8 filed with the SEC in January 2013 and June 2013 and Targacept's shelf registration statement on Form S-3 filed with the SEC in November 2013; (d) in connection with the review of other documents filed with the SEC and accounting consultations; and (e) normally provided by the independent registered public accounting firm in connection with statutory and regulatory filings or engagements.

(2) Audit-Related Fees include fees for assurance and related services by the principal accountant that are reasonably for the performance of the audit or review of Targacept's financial statements and are not reported under Audit Fees.

(3) Tax Fees include fees billed in the applicable year for tax return preparation, assistance with tax return examinations, research and technical tax advice.

(4) All Other Fees reflect fees billed in the applicable year for a license to Ernst & Young LLP's web-based accounting research tool.

Audit Committee Pre-Approval Policy

The audit committee has adopted a policy that requires the audit committee to approve all audit and permissible non-audit services to be provided by the independent registered public accounting firm prior to its engagement to provide such services. The audit committee has established a pre-approval policy for certain audit and non-audit services, up to a specified amount for each identified service that may be provided by the independent registered public accounting firm. In addition, the chairman of the audit committee, or any member of the audit committee designated by the Chairman, may specifically approve any service that is not a prohibited non-audit service if the fees for such service are reasonably expected not to exceed $10,000. Any such approval by the Chairman or his designee must be reported to the audit committee at its next scheduled meeting. The pre-approved services of the independent registered public accounting firm, and corresponding maximum fees, are reviewed annually by the audit committee.

Audit Committee Report

The Audit Committee has reviewed and discussed with management Targacept's audited financial statements for the year ended December 31, 2014. The Audit Committee has also reviewed and discussed with Ernst & Young LLP, Targacept's independent registered public accounting firm, Targacept's audited financial statements and the

matters required to be discussed by the Statement on Auditing Standards No. 61, as amended (The American Institute of Certified Public Accountants, *Professional Standards*, Vol. 1 AU section 380), as adopted by the Public Company Accounting Oversight Board in Rule 3200T.

The Audit Committee has received from Ernst & Young the written disclosures and the letter required by applicable requirements of the Public Company Accounting Oversight Board regarding Ernst & Young's communications with the Audit Committee concerning independence and has discussed with Ernst & Young its independence.

Based on its review and discussions with management and Ernst & Young and its review of the information provided by management and Ernst & Young, the Audit Committee recommended to the Targacept board of directors that Targacept's audited financial statements be included in its Annual Report on Form 10-K for the year ended December 31, 2014 for filing with the SEC.

This Audit Committee report is not incorporated by reference into any of Targacept's previous filings with the SEC and is not to be incorporated by reference into any of Targacept's future filings with the SEC, irrespective of any general statement included in any such filing that incorporates this proxy statement/prospectus/information statement by reference, unless such filing explicitly incorporates this Audit Committee report by reference.

Respectfully submitted,

Charles A. Blixt, Chairman
Errol B. De Souza, Ph.D.
John P. Richard

Vote Required

The board of directors' appointment of Ernst & Young LLP as Targacept's independent registered public accounting firm for fiscal year 2015 will be ratified if a majority of the shares present in person or represented by proxy at the meeting and entitled to vote on the proposal vote "FOR" the proposal. Targacept is soliciting stockholder ratification of the appointment of Ernst & Young LLP, although stockholder ratification is not required by law. If the appointment of Ernst & Young LLP is not ratified at the meeting, the Audit Committee will consider whether to appoint a different independent registered public accounting firm.

Recommendation of Targacept Board of Directors

THE TARGACEPT BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT TARGACEPT STOCKHOLDERS VOTE "FOR" RATIFICATION OF THE APPOINTMENT OF ERNST & YOUNG LLP AS TARGACEPT'S INDEPENDENT PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING DECEMBER 31, 2015, AND PROXIES SOLICITED BY THE BOARD WILL BE VOTED IN ACCORDANCE WITH THE BOARD'S RECOMMENDATION UNLESS A STOCKHOLDER INDICATES OTHERWISE ON THE PROXY.

PROPOSAL NO. 9:
APPROVAL OF POSSIBLE ADJOURNMENT OF THE TARGACEPT ANNUAL MEETING

If Targacept fails to receive a sufficient number of votes to approve Targacept Proposal Nos. 1, 2, and 3, Targacept may propose to adjourn the Targacept annual stockholders meeting for a period of not more than 30 days, for the purpose of soliciting additional proxies to approve Targacept Proposal Nos. 1, 2 and 3. Targacept currently does not intend to propose adjournment at the Targacept annual stockholders meeting if there are sufficient votes to approve Targacept Proposal Nos. 1, 2, and 3.

Vote Required

The affirmative vote of the holders of a majority of the shares of Targacept common stock having voting power present in person or represented by proxy at the Targacept annual stockholders meeting is required to adjourn the Targacept annual stockholders meeting for the purpose of soliciting additional proxies to approve Targacept Proposal Nos. 1, 2, and 3.

Recommendation of Targacept Board of Directors

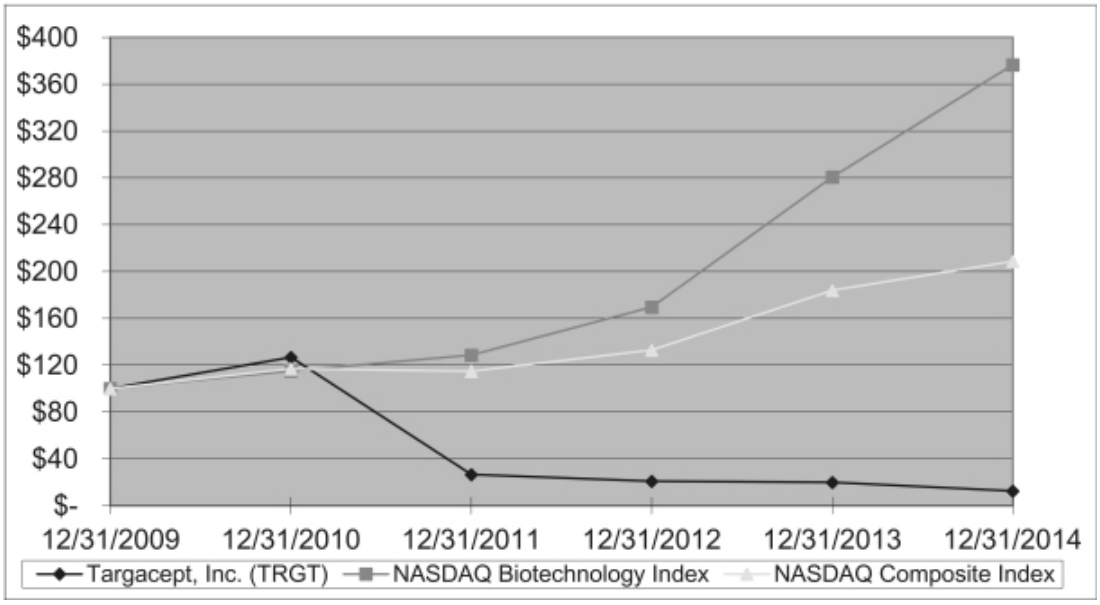
THE TARGACEPT BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT TARGACEPT STOCKHOLDERS VOTE "FOR" THE POSSIBLE ADJOURNMENT OF THE ANNUAL MEETING, IF NECESSARY, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE NOT SUFFICIENT VOTES IN FAVOR OF TARGACEPT PROPOSAL NOS. 1, 2 AND 3. EACH OF PROPOSAL 1, 2 AND 3 ARE CONDITIONED UPON EACH OTHER AND THE APPROVAL OF EACH SUCH PROPOSAL IS REQUIRED TO CONSUMMATE THE MERGER.

PERFORMANCE GRAPH AND EQUITY PLAN TABLE

Presented below is a line graph comparing the yearly percentage change in the cumulative total return on Targacept common stock to the cumulative total return of The NASDAQ Composite Index and The NASDAQ Biotech Index for the period commencing on December 31, 2009 and ending on December 31, 2014.

The graph assumes that $100 was invested in Targacept common stock, The NASDAQ Composite Index and The NASDAQ Biotech Index on December 31, 2008 and that all dividends were reinvested on the date of payment without payment of any commissions. Targacept has not declared or paid any dividends on its common stock. Pursuant to the Merger Agreement and as described in the section entitled "Agreements Related to the Merger—Pre-Closing Dividend" beginning on page 138, Targacept expects to pay the Pre-Closing Dividend prior to closing of the merger. The performance of Targacept common stock shown in the graph below represents past performance and should not be considered an indication of future performance.

Comparison of Cumulative Total Return
Among Targacept, Inc., the NASDAQ Composite Index
and the NASDAQ Biotechnology Index



Equity Compensation Plan Information

The following table provides certain information with respect to all of the Targacept equity compensation plans in effect as of December 31, 2014. Targacept's equity compensation plans consist of the 2006 Plan and the 2000 Equity Incentive Plan. Targacept also granted a standalone inducement stock option to Dr. Hill upon commencement of his employment with Targacept in December 2012.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders	3,483,974	$ 9.44	3,149,327(1)
Equity compensation plans not approved by security holders	400,000(2)	4.50	—
Total	3,883,974	$ 8.93	3,149,324

(1) Represents shares of common stock available for future issuance under the 2006 Plan upon the exercise of stock options that may be granted after December 31, 2014, restricted stock or other stock-based awards.

(2) Represents share of common stock issuable pursuant to the inducement grant to Dr. Hill. On December 3, 2012, the first trading day after Dr. Hill's first day of employment with Targacept, Dr. Hill was granted an option to purchase 400,000 shares of Targacept's common stock at an exercise price per share equal to $4.50, the closing price of Targacept's common stock on the NASDAQ Global Select Market on the grant date. The grant, which was not made under the 2006 Plan, was approved by both the Compensation Committee and the Targacept board of directors. The grant was made as an inducement material to Dr. Hill entering into employment with Targacept as contemplated by NASDAQ Listing Rule 5635(c)(4) and is governed by terms substantially similar to the terms of the 2006 Plan.

Of the 400,000 shares issuable pursuant to the option, 200,000 shares, or 50%, of this option are vested and exercisable as of December 31, 2014. The remaining 200,000 shares, or 50%, of this option are scheduled to vest and become exercisable in equal installments on the last day of each of the 8 consecutive calendar quarters beginning on March 31, 2015 and ending on December 31, 2016.

TARGACEPT BUSINESS

Overview

Targacept is a biopharmaceutical company that historically has been engaged in the development of novel NNR Therapeutics™ to treat patients suffering from serious nervous system and gastrointestinal/genitourinary diseases and disorders. Targacept's NNR Therapeutics selectively target a class of receptors known as neuronal nicotinic receptors, which it refers to as NNRs. NNRs are found on nerve cells throughout the nervous system and serve as key regulators of nervous system activity. However, due to the disappointing clinical trial outcomes in Targacept's development programs for TC-5214, TC-1734, TC-5619, and, most recently, TC-6499, it has shifted its strategic emphasis to external business opportunities not related to NNRs. On March 5, 2015, Targacept announced its entry into the Merger Agreement with Catalyst.

Based on years of focused research in the NNR area, and notwithstanding Targacept's clinical development setbacks, it continues to believe that compounds that interact selectively with specific NNR subtypes have the potential to achieve positive medical effects by modulating their activity. Targacept has built a patent estate covering the structure or therapeutic use of small molecules designed to regulate activity in the body by selectively affecting specific NNR subtypes. Targacept does not have current plans to continue development of any of its NNR programs internally. Instead Targacept is seeking to out-license or sell those assets to one or more third parties. Targacept's most advanced clinical-stage NNR product candidates are described briefly below.

TC-6499

TC-6499 is a novel small molecule that modulates the activity of the a3ß4 and other NNRs as an agonist. Targacept's recently completed exploratory study of TC-6499 as a treatment for diabetic gastroparesis, a chronic disorder that slows or stops the passage of food from the stomach to the small intestine, did not meet its primary endpoint. Targacept does not have plans for further development of TC-6499.

TC-6683 (formerly AZD1446)

TC-6683 is a novel small molecule that modulates the activity of the a4ß2 NNR. TC-6683 was subject to a collaboration agreement with AstraZeneca AB, or AstraZeneca, that AstraZeneca terminated effective January 2015. Upon termination of the agreement, all rights to TC-6683 reverted to Targacept. Targacept does not have current plans to pursue additional development of TC-6683.

TC-5619 and TC-6987

TC-5619 and TC-6987 are novel small molecules that are highly selective for the a7 NNR. The a7 NNR has been shown to play a role in a variety of biological pathways associated with various diseases and disorders. Targacept previously conducted clinical studies of TC-5619 as a potential treatment for schizophrenia, Alzheimer's disease and attention deficit hyperactivity disorder and exploratory studies of TC-6987 as a treatment for inflammatory disorders. Targacept does not have plans to pursue additional development of these compounds in these therapeutic areas.

TC-1734

TC-1734 (also referred to in previous filings as AZD3480) is a wholly owned novel small molecule that modulates the activity of the a4ß2 NNR. In July 2014, Targacept announced that its Phase 2b clinical trial of TC-1734 as a treatment for mild to moderate Alzheimer's disease did not meet its primary endpoint. Targacept has no further plans for development of TC-1734.

TC-5214

TC-5214 acts as an antagonist on the a3ß4 NNR. Targacept previously conducted clinical studies of TC-5214 as a treatment for major depressive disorder and for overactive bladder. Most recently, in July 2014, Targacept

announced that a Phase 2b trial of TC-5214 as a treatment for overactive bladder did not meet one of the trial's two co-primary endpoints. Targacept does not have plans to pursue additional development of this compound in these therapeutic areas.

Targacept's business activities are conducted by one operating segment for which Targacept provides information about revenues, profits and losses in its financial statements.

Targacept's Business Strategy

Targacept seeks to provide superior treatment options for complex diseases and disorders to improve the lives of patients by developing innovative new medicines. In the light of the disappointing outcomes of Targacept's NNR studies to date, it has identified and assessed a broad range of strategic options, culminating in its decision to enter into the Merger Agreement with Catalyst.

- *Expand Targacept's pipeline of product candidates deliberatively.* To grow Targacept's business in the long term, it will need to expand its pipeline. After considering opportunities to broaden Targacept's NNR pipeline, in-license novel programs, or acquire another platform technology, it decided to enter into an agreement with respect to the merger with Catalyst. Assuming the merger is completed as planned, the combined company will focus its development on human engineered protease therapeutics.
- *Seek value for Targacept's pipeline of NNR Therapeutics*. Whether or not Targacept's merger with Catalyst is completed as planned, it is seeking to monetize its NNR Assets and has no plans to pursue any further NNR development itself.

Targacept's Product Candidates

TC-6499

TC-6499 is a novel small molecule that modulates the activity of the a3ß4 and other NNRs. Targacept's recently completed exploratory study of TC-6499 as a treatment for diabetic gastroparesis, a chronic disorder that slows or stops the passage of food from the stomach to the small intestine, did not meet its primary endpoint. Targacept does not have plans for further development of TC-6499.

TC-6683 (formerly AZD1446)

TC-6683 is a novel small molecule that modulates the activity of the a4ß2 NNR. Targacept discovered and advanced TC-6683 as part of a now completed preclinical research collaboration that it and AstraZeneca conducted under Targacept's 2005 collaboration agreement. AstraZeneca terminated that agreement in October 2014, effective January 2015. Upon termination of the agreement, all rights to TC-6683 reverted to Targacept. Targacept does not have current plans to pursue additional development of TC-6683.

TC-5214

TC-5214 acts potently on a3ß4 and other NNRs. TC-5214 is one of the two enantiomers of the racemate mecamylamine hydrochloride. Enantiomers are mirror images of each other that have the same chemical but potentially different biological properties and together form a chemical mixture known as a racemate. Targacept has completed Phase 2 clinical trials of TC-5214 in various indications and, under a now terminated collaboration agreement with AstraZeneca, Phase 3 co-development in major depressive disorder (MDD). Targacept currently does not have plans to pursue additional development with TC-5214.

Completed Phase 2b Clinical Trial in Overactive Bladder

Targacept completed in July 2014 a Phase 2b clinical trial of TC-5214 in overactive bladder. The trial was a double blind, placebo controlled, randomized, parallel group trial conducted in the United States. The term "double blind" means that neither the subjects nor the investigators in the trial know which subjects receive the

investigational drug (in this case, TC-5214) and which subjects receive placebo. The study, which enrolled 768 patients, included a 3- to 5-week screening period followed by a 12-week treatment period during which patients received either one of three doses of TC-5214 (0.5mg, 1mg or 2mg) or placebo twice daily. The study's co-primary endpoints were change in urination frequency per 24 hours and change in urinary incontinence episodes per 24 hours, in each case from baseline to 12 weeks. In the trial, TC-5214 demonstrated mixed results on the co-primary endpoints by providing a statistically significant reduction in urination frequency per 24 hours and an improvement that did not reach statistical significance on episodes of urinary incontinence episodes per 24 hours. Upon completion of the study, Targacept announced that the results did not support continuing development of TC-5214 as a treatment for overactive bladder.

Completed Clinical Program in MDD

Targacept and AstraZeneca previously conducted a multi-clinical trial Phase 3 program for TC-5214 as an adjunct therapy, and a Phase 2b clinical trial of TC-5214 as a "switch" monotherapy, in each case in adults with MDD who do not respond adequately to initial therapy. None of these clinical trials met its primary endpoint (as used in this proxy statement/prospectus/information statement, the terms "endpoint" and "outcome measure" have the same meaning). In the first quarter of 2012, Targacept and AstraZeneca announced that, based on the totality of the results of the Phase 3 program, a regulatory filing for TC-5214 as an adjunct therapy for MDD would not be pursued and it reported the discontinuation of a "switch" monotherapy trial. AstraZeneca subsequently terminated Targacept's collaboration agreement for TC-5214, effective in May 2012.

TC-6987

TC-6987 is a novel small molecule that modulates the activity of the a7 NNR. Previously, Targacept completed two exploratory Phase 2 clinical trials of TC-6987, one in asthma and one in Type 2 diabetes. Targacept currently does not have plans to pursue additional development with TC-6987.

TC-5619

TC-5619 is a novel small molecule that modulates the activity of the a7 NNR. Targacept has completed Phase 2 clinical trials of TC-5619 in various indications. Targacept currently does not have plans to pursue additional development with TC-5619.

Completed Phase 2b Clinical Trial in Negative Symptoms and Cognitive Dysfunction in Schizophrenia

Targacept completed in December 2013 a Phase 2b clinical trial of TC-5619 in negative symptoms and cognitive dysfunction in schizophrenia. The trial was a double blind, placebo controlled, parallel group study conducted at sites in Eastern Europe and the United States. The trial enrolled 477 subjects with stable psychotic symptoms and taking an approved atypical antipsychotic medication. The trial design provided for a four-week screening period, followed by a 24-week treatment period during which subjects received either one of two daily doses of TC-5619 (5mg or 50mg) or placebo together with continued treatment with an atypical antipsychotic.

The primary outcome measure in the trial was change from baseline on the Scale for the Assessment of Negative Symptoms, or SANS, at the end of the treatment period with TC-5619 as compared to placebo. SANS is an investigator assessment of improvement on the negative symptoms of schizophrenia. The key secondary outcome measures for the trial were the composite score on the CogState Schizophrenia Battery, or CSB, a computerized battery of neuropsychiatric tests that assess specific cognitive domains, and the University of California, San Diego Performance-Based Skills Assessment, brief version.

TC-5619 did not meet the primary outcome measure and did not demonstrate improvement on the key secondary measures.

Completed Phase 2 Clinical Trial in Cognitive Dysfunction in Schizophrenia

Previously, Targacept completed a Phase 2 clinical trial of TC-5619 in cognitive dysfunction in schizophrenia. The trial was a double blind, placebo controlled, multi-center study conducted in the United States and India. In the trial, 185 subjects with schizophrenia who had stable psychotic symptoms were randomly assigned to receive either TC-5619 or placebo, together with continued treatment with an atypical antipsychotic (either quetiapine, marketed as Seroquel, or risperidone, marketed as Risperdal), for 12 weeks. Approximately half of the subjects were users of tobacco products. Subjects who received TC-5619 received a 1mg daily dose for the first four weeks, a 5mg daily dose for the next four weeks and a 25mg daily dose for the last four weeks. This type of scheduled dosing adjustment is sometimes referred to as “forced titration.”

The primary outcome measure of the trial was change from baseline on the Groton Maze Learning task of the CSB on each of three measurement dates for TC-5619 as compared to placebo. The Groton Maze Learning task is designed to assess executive function. The trial protocol defined a positive outcome on the Groton Maze Learning task as superiority (one-sided p-value < 0.10) for the TC-5619 dose group as compared to the placebo dose group after adjusting statistically to account for multiple comparisons.

In the trial, the results on the Groton Maze Learning task met the pre-defined success criteria (adjusted p-value = 0.054), as well as at two of the trial’s three measurement dates (at 4 weeks, unadjusted p-value = 0.018; and at 12 weeks, unadjusted p-value = 0.041), and were favorable for tobacco users as compared to non-tobacco users (where there was no activity on this measure) and for subjects at study sites in the United States as compared to subjects at study sites in India. Each of the p-values noted above was derived after data log transformation, a commonly utilized statistical technique where the data does not follow a normal distribution.

In addition, Targacept observed encouraging signals (one-sided p-value < 0.10 on one of the measurement dates) in the trial on several secondary efficacy outcome measures, including SANS, Clinical Global Impression—Global Improvement, an investigator assessment of overall response, Subject Global Impression—Cognition scale, a subject self-assessment of cognitive change, and two of six computer-based items of the CSB. Other secondary efficacy outcome measures of the trial, including a composite measure of the CSB and Clinical Global Impression—Severity of Illness, an investigator assessment of severity of illness based on total clinical experience, did not demonstrate a drug effect in the dataset that included all subjects and occasionally statistically favored placebo over TC-5619 (including on the verbal memory item of the CSB after four weeks).

Completed Phase 2 Clinical Trials in Adults with ADHD and Adults with ADHDi

Previously, Targacept completed a Phase 2 clinical trial of TC-5619 in adults with attention deficit/hyperactivity disorder, or ADHD, and a subsequent Phase 2 clinical trial of TC-5619 in adults with inattentive-predominant attention deficit/hyperactivity disorder, or ADHDi. The ADHD trial was a double blind, placebo controlled, forced titration, multi-center, 12-week study conducted in the United States. Each subject in the trial was randomly assigned to receive a daily dose of either TC-5619, beginning with 1mg and increasing to 5mg and then to 25mg, or placebo. TC-5619 did not meet the primary outcome measure of the trial, but showed encouraging signals on some of the trial’s efficacy measures in the subpopulation of subjects with ADHDi. The ADHDi trial was a double blind, placebo controlled, parallel group, multi-center, 12-week study conducted in the United States. Subjects in the trial were randomly assigned to receive a daily dose of 5mg TC-5619, 25mg TC-5619 or placebo. TC-5619 did not meet the primary outcome measure of the trial, and Targacept is not pursuing further development of TC-5619 in ADHD or ADHDi.

TC-1734

TC-1734 is a novel small molecule that modulates the activity of the a4ß2 NNR. Targacept has completed Phase 2 clinical trials of TC-1734 in various indications. Targacept currently does not have plans to pursue additional development with TC-1734.

Completed Phase 2b Clinical Trial in Mild to Moderate Alzheimer's Disease Conducted by Targacept

Targacept completed in July 2014 a Phase 2b clinical trial of TC-1734 as a treatment for mild to moderate Alzheimer's disease. The trial was a potential registration study that was the subject of a Special Protocol Assessment agreement with the U.S. Food and Drug Administration, or FDA. It was a double blind study designed to evaluate TC-1734 head-to-head against donepezil, which is marketed as Aricept and is the medication most often prescribed for mild to moderate Alzheimer's disease. In the trial, 293 subjects diagnosed with probable Alzheimer's disease classified as mild or moderate in severity were randomly assigned to receive donepezil or a fixed 30mg dose of TC-1734 daily over 52 weeks. Targacept conducted the study at sites predominantly in Eastern Europe and in the United States. The study had co-primary outcome measures, change from baseline after 12 months of treatment with TC-1734 as compared to donepezil on the Alzheimer's Disease Assessment Scale-cognitive subscale, or ADAS-Cog, and on a functional measure. The functional measure for European sites is the Alzheimer's Disease Cooperative Study—Activities of Daily Living Inventory, and the functional measure for U.S. sites is the Clinician's Interview Based Impression of Change Plus Caregiver Input, each of which assesses subjects' ability to perform typical day-to-day activities. In the trial, TC-1734 did not meet the objective of showing superiority to donepezil after the 52 weeks of treatment.

The study was the second clinical trial of TC-1734 in mild to moderate Alzheimer's disease. The first was conducted by AstraZeneca under Targacept's 2005 collaboration agreement with them, which terminated effective January 2015, and its outcome was inconclusive. In March 2013, AstraZeneca exercised its right to terminate TC-1734 from the now terminated collaboration agreement. As a result, all rights and licenses for TC-1734 that Targacept granted under the agreement to AstraZeneca terminated and reverted to Targacept effective June 2013. Previously, Targacept received $6.2 million in nonrefundable payments from AstraZeneca in connection with Targacept's ongoing clinical trial.

Completed Phase 2b Clinical Trial in Mild to Moderate Alzheimer's Disease Conducted by AstraZeneca

In 2008, AstraZeneca completed a Phase 2b double blind, placebo controlled, dose finding, multi-center clinical trial of TC-1734 in mild to moderate Alzheimer's disease, known as the "Sirocco" trial. The Sirocco trial was conducted at sites in Western Europe, Eastern Europe and Canada. In the trial, 567 subjects diagnosed with probable Alzheimer's disease classified as mild or moderate in severity were randomly assigned to one of three dose groups of TC-1734, to donepezil, or to placebo and dosed over a 12-week period. The primary outcome measure of the trial was change from baseline on ADAS-Cog after 12 weeks of treatment with TC-1734 as compared to placebo. Some of the secondary outcome measures of the trial included the Alzheimer's Disease Cooperative Study—Clinical Global Impression of Change, or ADCS-CGIC, which is a 7-point clinician assessment of change in behavior and the ability to function, the Mini Mental State Examination, or MMSE, which is a quantitative, 30-point cognition scale, and a computer-based test battery developed by CDR Ltd. to test cognitive function.

The results of the Sirocco trial were inconclusive in that the active comparator, donepezil, did not meet the trial's criteria for statistical significance versus placebo on the primary outcome measure. TC-1734 also did not meet the trial's criteria for statistical significance versus placebo on the primary outcome measure. However, in an analysis conducted post hoc in which the most mildly impaired subjects (MMSE = 25 or 26) were excluded, the middle dose of TC-1734 tested achieved a favorable outcome (one-sided p-value = 0.04) and donepezil showed a strong trend (one-sided p-value = 0.065).

Subjects dosed with TC-1734 showed an improvement on ADCS-CGIC and the MMSE, two of the trial's secondary outcome measures, at two of the three doses tested as compared to subjects dosed with placebo. Of the three TC-1734 doses evaluated, subjects in the middle dose group showed the most improvement on both measures as compared to subjects dosed with placebo, with a 0.5 point advantage on ADCS-CGIC and a 0.9 point advantage on the MMSE. Subjects dosed with donepezil also showed an improvement as compared to subjects dosed with placebo on ADCS-CGIC, with a 0.2 point advantage, and the MMSE, with a 1.0 point advantage. No improvement was shown in any domain of the CDR test battery in the pooled dataset of all subjects in the donepezil dose group or any of the TC-1734 dose groups as compared to the placebo dose group.

Medical Need and Commercial Opportunity in Targacept's Target Indication

Gastroparesis, also referred to as delayed gastric emptying, is a debilitating, chronic disorder that slows or stops the passage of food from the stomach to the small intestine. The most common symptoms of gastroparesis are nausea, a feeling of fullness after eating only a small amount of food, vomiting, gastroesophageal reflux, abdominal pain and bloating. Gastroparesis affects an estimated 5% to 12% of patients with diabetes and can cause a significant reduction in quality of life. Complications from the disorder may lead to hospitalizations and emergency room visits, which can have significant economic impact on individuals and society.

Patents and Proprietary Rights

Targacept has actively sought to protect the proprietary NNR technology that it considers important to its business, including chemical species, compositions and forms, their methods of use and processes for their manufacture, as well as modified forms of naturally-expressed receptors, in the United States and other jurisdictions internationally that Targacept consider key pharmaceutical markets. Targacept also relies upon trade secrets and contracts to protect its proprietary information. If Targacept completes the merger with Catalyst, it does not anticipate that the combined company will continue to invest in protecting the intellectual property related to the NNR Assets, except to the extent that such protections are necessary to enhance the opportunity to monetize the relevant assets in the short term.

As of February 28, 2015, Targacept's issued patents and pending patent applications in the United States and foreign counterparts include composition of matter coverage on a number of different structural families of compounds. The actual protection afforded by a patent varies from country to country and depends upon many factors, including the type of patent, the scope of its coverage and the availability of legal remedies in a particular country.

Product Candidate	Patent Scope	Patent Expiration
TC-5214	Pharmaceutical composition of TC-5214	January 2020
	Methods of use of TC-5214 in overactive bladder	March 2033
TC-1734	Composition of matter for the preferred salt form of TC-1734	August 2026
TC-6683 (formerly AZD1446)	Composition of matter for TC-6683	August 2028
	Composition of matter for a family of compounds that includes TC-6683	January 2028
TC-6499	Composition of matter for TC-6499	February 2024
	Composition of matter for the preferred salt form of TC-6499	September 2032
TC-5619	Composition of matter for a racemic mixture that includes TC-5619	March 2019
	Composition of matter for a family of racemic compounds that includes a racemic mixture that includes TC-5619	August 2019
	Composition of matter for a sub-family of racemic compounds that includes a racemic mixture that includes TC-5619	December 2018
	Composition of matter for specific salt forms of TC-5619, including the preferred salt	January 2029
	Composition of matter for single enantiomer TC-5619 and salts	August 2028
	Commercial method and composition of matter for synthetic intermediates for manufacture of TC-5619	August 2028

Product Candidate	Patent Scope	Patent Expiration
TC-6987	Composition of matter for a family of racemic compounds that includes a racemic mixture that includes TC-6987	August 2019
	Composition of matter for a sub-family of racemic compounds that includes a racemic mixture that includes TC-6987	December 2018
	Composition of matter for single enantiomer TC-6987 and salt forms, including the preferred salt	November 2030

Targacept considers the following United States patents that it owns or licenses to be particularly important to the protection of its most advanced product candidates.

In addition to these patents, for some of these product candidates, Targacept has later-expiring patents and patent applications that cover the product candidate, its use as part of combination therapy or otherwise, or methods for synthesis or composition of matter coverage for synthetic intermediates. These patents, including any patents that issue from other pending applications, could provide additional protection or a longer period of protection. Targacept also has issued patents and pending patent applications with equivalent or substantially comparable protection for its product candidates in jurisdictions internationally that it consider key pharmaceutical markets.

The patent expiration dates referenced above do not reflect any potential patent term extension that Targacept may receive under The United States Drug Price Competition and Patent Term Restoration Act of 1984, known as the Hatch-Waxman Act. The Hatch-Waxman Act generally permits a patent extension term of up to five years as compensation for patent term lost during the FDA regulatory review process. Patent term extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of FDA approval. The patent term restoration period is generally one-half of the time between the effective date of an investigational new drug application, or IND, and the submission date of a new drug application, or NDA, plus the time between the submission date and approval date of an NDA. Only one patent applicable to an approved drug is eligible for an extension, and, with limited exceptions, the extension must be applied for prior to expiration of the patent. The United States Patent and Trademark Office, in consultation with the FDA, reviews and approves applications for patent term extension.

License Agreements

Targacept considers the following license agreements to be important to any ongoing activity related to Targacept's NNR Assets.

University of South Florida Research Foundation

Pursuant to a license agreement with University of South Florida Research Foundation, or USFRF, Targacept holds an exclusive worldwide license under patents and patent applications owned by USFRF to develop and commercialize TC-5214, mecamylamine hydrochloride and other specified compounds. The licensed patent rights include issued patents covering the pharmaceutical composition of TC-5214.

Under the license agreement with USFRF, Targacept is obligated to pay to USFRF:

- an annual license fee of $50,000 until Targacept or a sublicensee files an NDA or foreign equivalent for use of a product subject to the license;
- an annual fee of $20,000 to maintain Targacept's right of first refusal to acquire rights under the licensed patents and patent applications beyond the scope of its current license; however, Targacept is forfeiting this right of first refusal as of March 2015 and will no longer be obligated to pay the annual fee of $20,000;

- royalties on net sales of products subject to the license or, if less, a percentage of royalties that Targacept receives from a sublicensee;
- aggregate payments of up to $200,000 based on the achievement of specified regulatory milestones; and
- 10% of other amounts, including milestone payments, that Targacept may receive for a sublicense from a sublicensee, subject to increase to a higher percentage in specified circumstances.

The aggregate annual license fees are creditable, up to a specified amount per year, against future royalties.

Targacept is required to use commercially reasonable efforts to develop or to market and sell one or more products subject to the license. In particular, Targacept is required to spend a specified minimum amount on research and development of products subject to the license over each consecutive three-year period during the term of the agreement until it or a sublicensee file an NDA or foreign equivalent for use of a product subject to the license. If USFRF believes that Targacept is not meeting its diligence obligation, it is entitled to terminate the agreement if Targacept does not cure its failure within a specified cure period. If Targacept does not agree with USFRF's determination and specified initial dispute resolution procedures are unsuccessful, it can submit the matter to binding arbitration.

Targacept may terminate the agreement at any time. USFRF may terminate the agreement if Targacept fails to make a required royalty payment when due, or commit a material breach of the agreement, and do not cure the failure or breach within specified cure periods. If not earlier terminated, the agreement will terminate upon expiration of the last to expire of the licensed patent rights that includes a valid claim.

University of Kentucky Research Foundation

Pursuant to a sponsored research agreement, University of Kentucky Research Foundation, or UKRF, agreed to assign its rights to inventions that resulted in patents related to TC-1734 to R.J. Reynolds Tobacco Company. These patents were subsequently assigned by R.J. Reynolds Tobacco Company to Targacept in August 2000. Under the sponsored research agreement and a subsequent license agreement with UKRF, it is obligated to pay royalties to UKRF based on amounts received for a license to these patents from any licensee.

Trade Secrets

In addition to patents, Targacept relies upon unpatented trade secrets and know-how and continuing technological innovation to develop and maintain its competitive position. Targacept seeks to protect its proprietary information, in part, by using confidentiality agreements with its commercial partners, collaborators, employees and consultants and invention assignment agreements with its employees.

Sales and Marketing

Targacept currently has limited sales, marketing and distribution experience with respect to pharmaceutical products and no internal sales or distribution capabilities. Targacept's current strategy is to monetize its NNR Assets and it has no plans to pursue any further NNR development itself.

Manufacturing

All of Targacept's current product candidates are compounds of low molecular weight, commonly referred to as small molecules, that can be manufactured in a simple synthetic process from readily available starting materials.

Targacept has historically relied on a number of contract manufacturers to manufacture Targacept's product candidates for use in any preclinical research and to manufacture its product candidates in accordance with current good manufacturing practices, or cGMP, for use in clinical trials. Contract manufacturers are subject to extensive FDA and other governmental regulation.

Competition

Targacept's industry is subject to rapid and intense technological change. Targacept faces worldwide competition from biotechnology, biopharmaceutical and pharmaceutical companies, research institutions, government agencies and academic institutions.

There is substantial competition from therapies designed to target NNRs. Pfizer's product Chantix, which is known outside of the United States as Champix, acts on several NNR subtypes as well as other molecular targets in the body. Chantix is approved as an aid to smoking cessation treatment. In addition, Targacept believes that several pharmaceutical and biotechnology companies have product candidates in development that target NNRs, including AbbVie, Merck & Co., Forum Pharmaceuticals, Vanda Pharmaceuticals, Asmacure, Bionomics, Saniona, Savant HWP, Alpharmagen (a joint venture formed by CoMentis and Anvyl), Extab, SK Biopharmaceuticals and Neuroderm.

Targacept believes the primary competitive products for treating diabetic gastroparesis, which Targacept was targeting with its lead product candidate, TC-6499, include the dopamine receptor antagonist metoclopramide. Metoclopramide is widely available generically under various trade names and was originally branded and marketed as Reglan by Alaven Pharmaceutical.

Regulatory Matters

Government Regulation and Product Approval

Government authorities in the United States, at the federal, state and local level, and in other countries extensively regulate, among other things, the research, development, testing, manufacture, quality control, approval, labeling, packaging, storage, recordkeeping, promotion, advertising, distribution, marketing and export and import of drugs such as Targacept's product candidates. Targacept's product candidates must be approved by the FDA through the NDA process before they may be legally marketed in the United States.

U.S. Drug Development Process

In the United States, the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act, or FDCA, and implementing regulations. The process of obtaining regulatory approvals and complying with applicable federal, state, local and foreign laws and regulations require the expenditure of substantial time and financial resources. Failure to comply with United States requirements at any time during the product development process, the approval process or after approval may subject a company to administrative or judicial sanctions. These sanctions could include the FDA's refusal to approve pending applications, withdrawal of an approval, a clinical hold, warning or untitled letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement, civil or criminal penalties, and criminal prosecution.

The process required by the FDA before a drug may be marketed in the United States generally involves the following:

- completion of nonclinical laboratory tests, animal studies and formulation studies conducted in accordance with good laboratory practices and other applicable regulations;
- submission to the FDA of an IND, which must become effective before human clinical trials may begin;
- performance of adequate and well-controlled human clinical trials conducted in accordance with regulations and guidelines establishing good clinical practices to establish the safety and efficacy of the drug for its intended use;
- submission to the FDA of an NDA in a form and content that the FDA deems to be acceptable for filing;

- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the drug is produced to assess compliance with cGMP in order to assure that the facilities, methods and controls are adequate to preserve the drug's identity, strength, quality and purity; and
- FDA review and approval of the NDA.

The testing and approval processes require substantial time, effort and financial resources.

Once a drug is identified for development it enters the nonclinical testing stage. Nonclinical tests include laboratory evaluations of chemistry, toxicity and formulation, as well as animal studies to assess the characteristics and potential effects of the drug and may continue throughout the entire drug development process. The conduct of the nonclinical tests must comply with federal regulations and requirements, including good laboratory practices, or GLP. The results of nonclinical testing are submitted to the FDA, along with other information about drug chemistry, manufacturing and controls and a proposed clinical trial protocol, as part of an IND. The IND becomes effective 30 days after receipt by the FDA, unless within the 30-day time period the FDA places the subject clinical trial on a clinical hold. In such a case, the company responsible for the clinical trial (the sponsor) and the FDA must resolve any outstanding concerns before the clinical trial can begin. Clinical holds also may be imposed by the FDA at any time before or during studies due to safety concerns or non-compliance with applicable law or regulation.

All clinical trials must be conducted under the supervision of one or more qualified investigators. Clinical trials must be conducted: (i) in compliance with federal regulations, including regulations requiring that all research subjects provide informed consent; (ii) in compliance with good clinical practice, or GCP, an international standard meant to protect the rights and health of patients and to define the roles of clinical trial sponsors, administrators, and monitors; as well as (iii) under protocols detailing, among other things, the objectives of the trial, the parameters to be used in monitoring safety, and the effectiveness criteria to be evaluated. Further, an institutional review board, or IRB, for each institution participating in a clinical trial must review and approve the plan for the clinical trial before it commences at the institution. An IRB considers, among other things, whether the risks to individuals participating in the trials are minimized and reasonable in relation to the anticipated benefits. The IRB also approves the information regarding the trial and the consent form that must be provided to each trial subject or his or her legal representative and monitors the study until completed. An IRB may impose conditions to the initiation or continued conduct of trial at the institution for which the IRB is responsible. Each new clinical protocol must be submitted to the IND for FDA review and to the applicable IRBs for approval.

Clinical trials are typically conducted in three sequential phases that may overlap or be combined:

- *Phase 1:* Involves one or more clinical trials in healthy subjects to evaluate safety, dosage tolerance, absorption, metabolism, distribution and excretion. In the case of some drugs for severe or life-threatening diseases, the initial human testing may be conducted in patients, particularly where the drug may be too inherently toxic to administer ethically to healthy subjects;
- *Phase 2:* Involves one or more clinical trials in a limited patient population to identify possible adverse effects and safety risks, to evaluate preliminarily the efficacy of the drug for specific targeted diseases and to determine dosage tolerance and optimal dosage; and
- *Phase 3:* Involves one or more clinical trials to further evaluate dosage, clinical efficacy and safety in an expanded patient population at geographically dispersed study sites. These trials are intended to establish the overall risk-benefit ratio of the drug and provide, if appropriate, an adequate basis for product labeling.

Progress reports detailing the results of clinical trials must be submitted at least annually to the FDA and safety reports must be submitted to the FDA and the investigators for serious and unexpected adverse events. Any clinical trial, whether Phase 1, Phase 2 or Phase 3, may fail to be completed successfully within any specified period, or at all. The FDA or the sponsor may suspend a clinical trial at any time on various grounds, including a

finding that the trial participants are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the drug under investigation has been associated with unexpected serious harm to patients.

During the development of a new drug, companies have opportunities to meet with the FDA at certain times, typically prior to submission of an IND, after Phase 2 development and before an NDA is submitted. Meetings at other times may also be requested. These meetings provide an opportunity for the company developing the drug to share information about the data gathered to date, for the FDA to provide advice, and for the company and the FDA to reach agreement on the next phase of development. Companies sometimes use the end-of-Phase 2 meeting to discuss their Phase 2 clinical trial results and present their plans for the pivotal clinical trials that they believe will support marketing approval.

If a Phase 2 clinical trial is the subject of discussion at an end-of-Phase 2 meeting with the FDA, a company may be able to request a Special Protocol Assessment, or SPA, the purpose of which is to reach agreement with the FDA on the protocol design and statistical analysis for the pivotal clinical trials that will form the primary basis of an efficacy claim. The FDA is required to evaluate the protocol within 45 days of the request to assess whether the proposed trial is adequate; however, the evaluation may result in discussions and a request for additional information that may extend the timeline to establish agreement beyond 45 days. An SPA request must be made before the proposed trial begins, and all open issues must be resolved before the trial begins. If an agreement is reached, it will be documented, made part of the administrative record, be binding on the FDA and not be changed unless the company fails to follow the agreed-upon protocol, data supporting the request are found to be false or incomplete or the FDA determines that a substantial scientific issue essential to determining the safety or effectiveness of the drug was identified after the testing began. Even if an SPA is agreed to, approval of the NDA is not guaranteed because a final determination that an agreed-upon protocol satisfies a specific objective, such as the demonstration of efficacy, or supports an approval decision, will be based on a complete review of all the data in the NDA.

If a drug is intended to treat a serious or life threatening condition for which there is an unmet medical need, a company may request that the FDA consider the drug for a fast track development program at the time of submitting its IND or at any time prior to receiving marketing approval. The fast track program is designed to facilitate the development and expedite the review of drugs for the treatment of specific conditions.

The Food and Drug Administration Safety and Innovation Act, which was enacted in 2012, enables a sponsor to request that a drug be designated as a breakthrough therapy. Breakthrough therapy designation is intended to expedite the development and review of drugs for serious or life-threatening conditions. The request is submitted concurrently with or as an amendment to an IND. The request must include supporting information, including the basis for considering the drug as intended to treat a serious condition and a summary of the preliminary clinical evidence that the drug may demonstrate substantial improvement over available therapies. A sponsor must describe the preliminary clinical evidence, including, for example, justification for the clinical study endpoint used and a brief description of statistical analyses. The FDA will make a determination whether or not to grant the request within 60 days after receipt of the submission.

Concurrently with clinical trials, companies usually complete additional animal studies and must also develop additional information about the chemistry and physical characteristics of the drug and finalize a process for manufacturing the drug as a product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the drug, and, among other things, the manufacturer must develop methods for testing the identity, strength, quality and purity of the final product. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the product does not undergo unacceptable deterioration over its shelf life.

U.S. Review and Approval Processes

The results of product development, nonclinical studies and clinical trials, along with descriptions of the manufacturing process, analytical chemistry tests, proposed labeling, and other relevant information, are submitted to the FDA as part of an NDA requesting approval to market the product. FDA approval of the NDA is required before marketing of the product may begin in the United States. The cost of preparing and submitting an NDA is substantial. Under federal law, the submission of most NDAs is additionally subject to a substantial application user fee and the manufacturer or sponsor under an approved NDA is also subject to annual establishment registration and product listing fees. These fees are typically increased annually. A waiver or reduction of the fees may be obtained under specified limited circumstances.

In addition, under the Pediatric Research Equity Act, or PREA, an NDA or supplement to an NDA must contain data to assess the safety and effectiveness of the drug for the claimed indications in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the drug is safe and effective. The FDA may grant a deferral for submission of data or a full or partial waiver. Unless otherwise required by regulation, PREA does not apply to any drug for an indication for which orphan designation, as described below, has been granted.

The FDA has 60 days from its receipt of an NDA to determine whether the application will be accepted for filing based on the agency's threshold determination that it is sufficiently complete to permit substantive review. Once the submission is accepted for filing, the FDA begins an in-depth review. The FDA has agreed to certain performance goals in the review of NDAs. Most such applications for standard review drug products are reviewed within ten to twelve months; most applications for priority review drugs are reviewed in six to eight months. Priority review can be applied to drugs that the FDA determines offer major advances in treatment, or provide a treatment where no adequate therapy exists. The review process for both standard and priority review may be extended by FDA for three additional months to consider certain late-submitted information, or information intended to clarify information already provided in the submission.

The FDA may also refer applications for novel drug products, or drug products that present difficult questions of safety or efficacy, to an advisory committee —typically a panel that includes clinicians and other experts—for review, evaluation, and a recommendation as to whether the application should be approved. The FDA is not bound by the recommendation of an advisory committee, but it generally follows such recommendations. Before approving an NDA, the FDA will typically inspect one or more clinical sites to assure compliance with GCP. Additionally, the FDA will inspect the facility or the facilities at which the drug is manufactured. The FDA will not approve the product unless compliance with current good manufacturing practice, or GMP—a quality system regulating manufacturing—is satisfactory and the NDA contains data that provide substantial evidence that the drug is safe and effective in the indication studied.

After FDA evaluates the NDA and the manufacturing facilities, it issues either an approval letter or a complete response letter. A complete response letter generally outlines the deficiencies in the submission and may require substantial additional testing, or information, in order for the FDA to reconsider the application. If, or when, those deficiencies have been addressed to the FDA's satisfaction in a resubmission of the NDA, the FDA will issue an approval letter. FDA has committed to reviewing such resubmissions in two or six months depending on the type of information included.

An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications. As a condition of NDA approval, the FDA may require a risk evaluation and mitigation strategy, or REMS, to help ensure that the benefits of the drug outweigh the potential risks. REMS can include medication guides, communication plans for healthcare professionals, and elements to assure safe use, or ETASU. ETASU can include, but are not limited to, special training or certification for prescribing or dispensing, dispensing only under certain circumstances, special monitoring, and the use of patient registries. The requirement for a REMS can materially affect the potential market and profitability of the drug. Moreover, product approval may require

substantial post-approval testing and surveillance to monitor the drug's safety or efficacy. Once granted, product approvals may be withdrawn if compliance with regulatory standards is not maintained or problems are identified following initial marketing.

Changes to some of the conditions established in an approved application, including changes in indications, labeling, or manufacturing processes or facilities, require submission and FDA approval of a new NDA or NDA supplement before the change can be implemented. An NDA supplement for a new indication typically requires clinical data similar to that in the original application, and the FDA uses the same procedures and actions in reviewing NDA supplements as it does in reviewing NDAs.

If a drug is the subject of an approved NDA, it may become a listed drug that can, in turn, be cited by potential competitors in support of approval of an abbreviated new drug application, or ANDA. An ANDA provides for marketing of a drug product that is therapeutically equivalent to a marketed listed drug. This means, among other things, that it has the same active ingredient(s), route of administration, dosage form and strength, as well as the same labeling, with certain exceptions, and that the labeling must prescribe conditions of use that have been previously approved for the listed drug. If the generic drug product has a different route of administration, dosage form, or strength, the FDA must grant a suitability petition approving the difference(s) from the listed drug before the ANDA may be filed. The ANDA must also contain data and information demonstrating that the generic drug product is bioequivalent to the listed drug or, if the application is submitted pursuant to an approved suitability petition, information to show that the listed drug and the generic drug product can be expected to have the same therapeutic effect as the listed drug when administered to patients for a proposed condition of use. There is generally no requirement, other than the requirement for evidence of bioequivalence, for an ANDA applicant to conduct or submit results of nonclinical tests or clinical trials to establish the safety or efficacy of its generic drug product. Drugs approved in this way are commonly referred to as generic equivalents to the listed drug, are listed as such by the FDA and can typically be substituted by pharmacists under prescriptions written for the original listed drug.

Marketing Exclusivity

Market exclusivity provisions under the FDCA also can delay the submission or the approval of certain applications. The FDCA provides a five-year period of non-patent marketing exclusivity within the United States to the first applicant to gain approval of an NDA for a new chemical entity. A drug is a new chemical entity if the FDA has not previously approved any other drug containing the same active moiety, which is generally the molecule or ion responsible for the action of the drug. During the exclusivity period, the FDA may not accept for review an ANDA or a Section 505(b)(2) NDA submitted by another company for another version of such drug where the applicant does not own or have a legal right of reference to all the data required for approval. However, an application may be submitted after four years if it contains a certification that the listed patents for the approved drug are invalid or not infringed. The FDCA also provides three years of marketing exclusivity for an NDA, Section 505(b)(2) NDA or supplement to an existing NDA if new clinical investigations, other than bioavailability studies, conducted or sponsored by the applicant are deemed by the FDA to be essential to the approval of the application. This may include, for example, new indications for, or new dosages or strengths of, an existing drug. This three-year exclusivity covers only the conditions associated with the new clinical investigations and does not prohibit the FDA from approving ANDAs for drugs containing the original active agent. Five-year and three-year exclusivity will not delay the submission or approval of a full NDA; however, an applicant submitting a full NDA would be required to conduct or obtain a right of reference to all of the nonclinical studies and adequate and well-controlled clinical trials necessary to demonstrate safety and effectiveness.

Pediatric exclusivity is another type of exclusivity in the United States. Pediatric exclusivity, if granted, provides an additional six months to an existing exclusivity or statutory delay in approval resulting from a patent certification. This six-month exclusivity, which runs from the end of other exclusivity, whether statutory or patent, may be granted based on the voluntary completion of a pediatric study in accordance with an FDA-issued "Written Request" for the study.

Post-Approval Requirements

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product may result in restrictions on the product or even complete withdrawal of the product from the market. After approval, some types of changes to the approved product, such as adding new indications, manufacturing changes and additional labeling claims, are subject to further FDA review and approval. Drug manufacturers and other entities involved in the manufacture and distribution of approved drugs are required to register their establishments with the FDA and applicable state agencies and are subject to periodic unannounced inspections for compliance with cGMP and other laws and regulations.

Any products manufactured or distributed by Targacept pursuant to FDA approvals are subject to continuing regulation by the FDA, including, among other things, record-keeping requirements, reporting of adverse experiences with the drug, providing the FDA with updated safety and efficacy information, drug sampling and distribution requirements, complying with certain electronic records and signature requirements, and complying with FDA promotion and advertising requirements. The FDA strictly regulates labeling, advertising, promotion and other types of information on products on the market. Products may be promoted only for the approved indications and in accordance with the provisions of the approved label.

As part of the sales and marketing process, pharmaceutical companies frequently provide samples of approved drugs to physicians. The Prescription Drug Marketing Act, or the PDMA, imposes requirements and limitations upon the provision of drug samples to physicians and prohibits states from licensing distributors of prescription drugs unless the licensing program meets federal guidelines that include minimum standards for storage, handling and record keeping. The PDMA sets forth civil and criminal penalties for violations.

From time to time, legislation is drafted, introduced and passed by the U.S. Congress that could significantly change the statutory provisions governing the approval, manufacturing and marketing of products regulated by the FDA.

Foreign Regulation

In addition to regulations in the United States, Targacept is subject to a variety of foreign regulations governing clinical trials of its product candidates and commercial sales and distribution of any products. Whether or not Targacept obtains FDA approval for a product candidate or product, it must obtain approval by the comparable regulatory authorities of foreign countries, or of economic areas such as the European Union, before it can commence clinical trials of the product candidate or marketing of the product in those countries or areas. The approval process and requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary greatly from place to place, and the time required may be longer or shorter than the time required for FDA approval.

Under European Union regulatory systems, Targacept may submit marketing authorization applications either under a centralized or a decentralized procedure. The centralized procedure, which provides for the grant of a single marketing authorization that is valid for all European Union member states, is compulsory for medicines produced by biotechnology or intended to treat AIDS, cancer, neurodegenerative disorders or diabetes and optional for medicines that are highly innovative. For drugs without approval in any member state, the decentralized procedure provides for approval by one or more other, or concerned, member states of an assessment of an application performed by one member state, which is known as the reference member state. Under this procedure, an applicant submits an application, or dossier, and related materials (including a draft summary of product characteristics, draft labeling and package leaflet) to the reference member state and concerned member states. The reference member state prepares a draft assessment and drafts of the related materials within 120 days after receipt of a valid application. Within 90 days of receiving the reference member state’s assessment report, each concerned member state must decide whether to approve the assessment report

and related materials. If a member state cannot approve the assessment report and related materials on the grounds of potential serious risk to public health, any disputed issues may eventually be referred to the European Commission and the decision of the European Commission would be binding on all member states.

As in the United States, Targacept may apply for designation of a product as an orphan drug for the treatment of a specific indication in the European Union before the application for marketing authorization is made. Orphan drugs in Europe receive economic and marketing benefits, including up to 10 years of market exclusivity for the approved indication unless another applicant can show that its product is safer, more effective or otherwise clinically superior to the orphan-designated product.

Reimbursement

Sales of pharmaceutical products depend in significant part on the availability of third-party reimbursement. Third-party payors include government health programs such as Medicare and Medicaid, managed care providers, private health insurers and other organizations. These third-party payors are increasingly challenging the price and examining the cost-effectiveness of medical products and services, including prescription drugs. In addition, significant uncertainty exists as to the reimbursement status of newly approved prescription drugs and other healthcare products. Targacept may need to conduct expensive pharmacoeconomic studies in order to demonstrate the cost-effectiveness of any of its products that is successfully developed and approved. Targacept's product candidates may not be considered cost-effective. It is time consuming and expensive to seek reimbursement from third-party payors. Reimbursement may not be available or sufficient to allow the sale of any of Targacept's products that is successfully developed and approved on a competitive and profitable basis.

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or the MMA, established the Medicare Part D program to provide a voluntary prescription drug benefit to Medicare beneficiaries. Under Part D, Medicare beneficiaries may enroll in prescription drug plans offered by private entities to provide coverage of outpatient prescription drugs. Part D plans include both stand-alone prescription drug benefit plans and prescription drug coverage as a supplement to Medicare Advantage plans. Unlike Medicare Parts A and B, Part D coverage is not standardized. Part D prescription drug plan sponsors are not required to pay for all covered Part D drugs, and each Part D prescription drug plan can develop its own drug formulary that identifies which drugs it will cover and at what tier or level. However, Part D prescription drug formularies must include drugs within each therapeutic category and class of covered Part D drugs, although not necessarily all of the drugs within each category or class. Any formulary used by a Part D prescription drug plan must be developed and reviewed by a pharmacy and therapeutic committee.

It is not clear what long-term effect the MMA will have on the prices paid for currently approved drugs and the pricing options for newly approved drugs. Government payment for some of the costs of prescription drugs may increase demand for any of Targacept's products that is successfully developed and approved. However, any negotiated prices for its products covered by a Part D prescription drug plan will likely be lower than the prices Targacept might otherwise obtain. Moreover, although the MMA applies only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own payment rates. Accordingly, any reduction in payment that results from the MMA may result in a similar reduction in payments from non-governmental payors.

Targacept expects that there will continue to be a number of federal and state proposals to implement governmental pricing controls and limit the growth of healthcare costs, including the cost of prescription drugs. Currently, Medicare is prohibited from negotiating directly with pharmaceutical companies for drugs. However, the U.S. Congress may in the future consider legislation that would lift the ban on federal negotiations.

The American Recovery and Reinvestment Act of 2009 provides funding for the federal government to compare the effectiveness of different treatments for the same illness. A plan for the research would be developed by the Department of Health and Human Services, the Agency for Healthcare Research and Quality and the National

Institutes of Health, and periodic reports on the status of the research and related expenditures would be made to the U.S. Congress. Although the results of the comparative effectiveness studies are not intended to mandate coverage policies for public or private payors, it is not clear whether research would have any effect on the sales of any of Targacept's products that is successfully developed and approved, if the product or the condition that it is intended to treat becomes the subject of a study. It is also possible that comparative effectiveness research demonstrating benefits of a competitor's product could adversely affect the sales of any of Targacept's products that is successfully developed and approved. If third-party payors do not consider Targacept's products to be cost-effective compared to other available therapies, they may not cover its products after approval as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow Targacept to sell its products on a profitable basis.

The Patient Protection and Affordable Care Act, or the ACA, as amended by the Health Care and Education Affordability Reconciliation Act of 2010, has had and is expected to have a significant impact on the health care industry. The ACA expanded coverage for the uninsured while at the same time containing overall healthcare costs. Among other things, the ACA expanded and increased industry rebates for drugs covered under Medicaid programs and made changes to the coverage requirements under the Medicare Part D program. Targacept cannot predict the full impact of the ACA on pharmaceutical companies because many of the ACA's reforms require the promulgation of detailed regulations to implement the statutory provisions, which has not yet occurred. In addition, although the United States Supreme Court has upheld the constitutionality of most of the ACA, some states have indicated that they intend not to implement certain sections of the ACA and some members of the U.S. Congress are still working to repeal the ACA. These challenges add to the uncertainty of the effects of the ACA.

The Physician Payment Sunshine Act, or Sunshine Act, which was enacted as part of ACA, requires covered manufacturers of drugs covered under Medicare, Medicaid or the Children's Health Insurance Program to report annually to the Secretary of the Department of Health and Human Services payments or other transfers of value made by that entity, or by a third-party as directed by that entity, to physicians and teaching hospitals, or to third parties on behalf of physicians or teaching hospitals, during the course of the preceding calendar year. The final rule implementing the Sunshine Act, published on February 8, 2013, required data collection on payments to begin on August 1, 2013. Failure to submit required information may result in civil monetary penalties of up to $150,000 per year (up to $1 million per year for "knowing failures") for all payments, transfers of value or ownership or investment interests not reported in an annual submission.

If not preempted by the ACA, several states require pharmaceutical manufacturers to report expenses relating to the marketing and promotion of pharmaceutical products and to report gifts and payments to individual physicians in the states. Other states prohibit providing various other marketing related activities. Still other states require the posting of information relating to clinical studies and their outcomes. In addition, some states, such as California, Nevada and Massachusetts, require pharmaceutical manufacturers to implement compliance programs or marketing codes. Currently, several additional states are considering similar proposals. Compliance with these laws is difficult and time consuming, and companies that do not comply with these state laws face civil penalties.

In some foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing vary widely from country to country. For example, the European Union provides options for its member states to restrict the range of medicinal products for which their respective national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. A member state may approve a specific price for the medicinal product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any of Targacept's products for which it receives marketing approval. Historically, the price structures for products launched in the European Union do not follow those of the United States and tend to be significantly lower.

Employees

As of May 15, 2015, Targacept had 13 full-time employees. Targacept's management believes that relations with its employees are good. None of Targacept's employees is represented under a collective bargaining agreement.

Targacept's Corporate Information

Targacept was incorporated in Delaware in 1997 as a wholly owned subsidiary of R.J. Reynolds Tobacco Company. In August 2000, Targacept became an independent company when it issued and sold stock to venture capital investors. Targacept's principal executive offices are located at 100 North Main Street, Suite 1510, Winston-Salem, North Carolina 27101 and its telephone number is (336) 480-2100.

Targacept's internet address is www.targacept.com. The information contained on, or that can be accessed through, Targacept's website is not incorporated by reference into this proxy statement/prospectus/information statement. Targacept has included its website address as a factual reference and do not intend it as an active link to its website. Targacept's annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, and all amendments to those reports, are available to you free of charge through the Investor Relations page of its website as soon as reasonably practicable after such materials have been electronically filed with, or furnished to, the SEC.

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CATALYST BUSINESS

Overview

Catalyst is a clinical-stage biopharmaceutical company focused on creating and developing novel products based on engineered human proteases. Proteases are proteins that enzymatically cleave other proteins and are involved in a variety of biological processes. Proteases regulate several complex biological cascades, or sequenced biochemical reactions, including the coagulation cascade that controls bleeding (hemostasis) in hemophilia and non-hemophilia settings and the complement cascade that causes inflammation and tissue damage in certain diseases.

Proteases constitute an established and prominent class of drugs, with more than ten on the market, which Catalyst estimates, based on its research, generate over $6.3 billion in worldwide annual sales in 2014.

Catalyst is developing engineered human proteases to address serious unmet medical needs in multiple high value indications. To date, Catalyst has focused its product development efforts in the following areas:

- **Hemostasis**—treatment of hemophilia and surgical bleeding using long-acting and potent variants of proteases that promote blood clotting, including coagulation Factors VIIa, IX, and Xa.
- **Inflammation**—prevention of delayed graft function, or DGF, in renal transplants and the treatment of dry age-related macular degeneration, or dry AMD, a condition that can cause visual impairment or blindness, using novel proteases that cleave complement factor C3, or C3.

Catalyst's most advanced program is an improved next-generation coagulation Factor VIIa variant, CB 813d/PF-05280602, which has completed a Phase 1 clinical trial evaluating safety and tolerability as well as pharmacokinetics, pharmacodynamics and coagulation activity in severe hemophilia A and B patients. Based on Catalyst's research, Catalyst estimates annual worldwide sales in 2014 for FDA-approved Factor VIIa products were approximately $1.4 billion. In addition to Catalyst's lead Factor VIIa program, Catalyst has two other next-generation coagulation factors, a Factor IX variant, CB 2679d/ISU 304, that is in advanced preclinical development, and a Factor Xa variant. Based on Catalyst's research, Catalyst estimates annual worldwide sales in 2014 for FDA-approved Factor IX and Factor Xa-containing products were approximately $1.8 billion. Catalyst seeks to develop these three product candidates to form the basis of a hemostasis franchise.

Catalyst is also developing novel proteases that inhibit inflammation and tissue damage by cleaving certain components of the complement cascade, initially focused on C3. Catalyst has created and characterized development candidate CB 2782 for the treatment of DGF in kidney transplants and discovered lead candidates for the potential treatment of dry AMD.

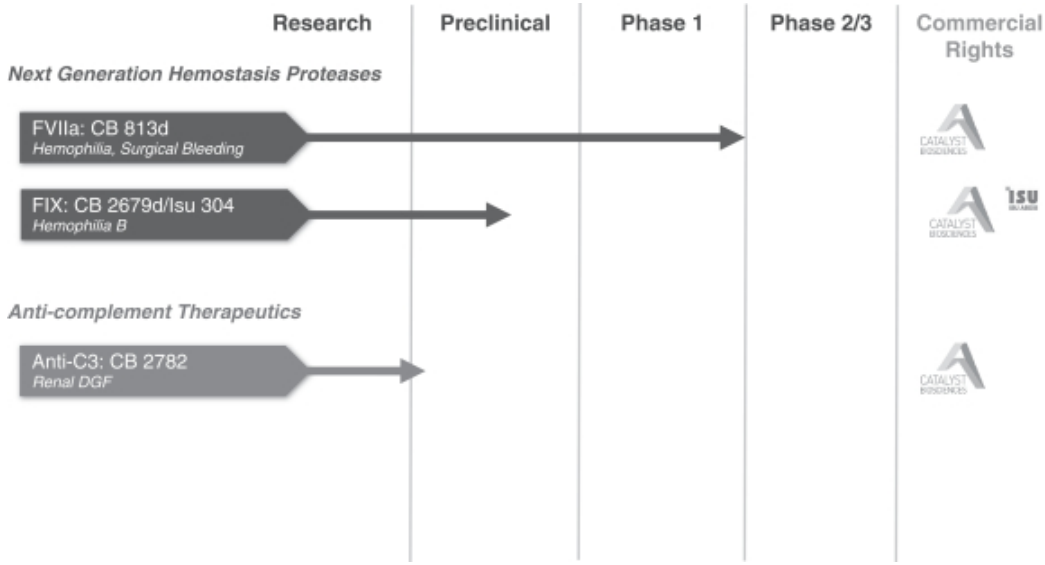
Catalyst is applying its substantial expertise in protease engineering and its proprietary product discovery platform to rapidly create, engineer, and characterize protease drug candidates. Catalyst's protease discovery platform allows Catalyst to improve the biochemical and pharmacological properties of currently marketed protease drugs, such as Factor VIIa and Factor IX and to create completely novel proteases that cleave disease-causing proteins, such as C3.

With drug candidates in clinical and advanced preclinical development across a range of diseases, Catalyst is a leader in the field of engineered protease biopharmaceuticals. Catalyst has assembled an experienced management team, world-class scientists and advisors, strong strategic collaborators, an enabling technology platform, and a leading intellectual property position to advance its clinical and preclinical pipeline.

Catalyst's Product Candidate Pipeline

Catalyst's drug research activities are currently devoted to the creation and clinical development of improved, next-generation, pro-coagulant proteases, Factor VIIa, Factor IX and Factor Xa, and novel proteases that cleave complement factor C3 in the complement cascade to treat inflammatory diseases, initially renal DGF and dry AMD.

The following table summarizes Catalyst's development programs.



Hemostasis & Hemophilia

Hemophilia is a rare but serious bleeding disorder that results from a genetic or an acquired deficiency of a protein required for normal blood coagulation. There are two major types of hemophilia, A and B, that are caused by alterations in Factor VIII or Factor IX genes, respectively, with a corresponding deficiency in the affected proteins. The disease is X chromosome-linked, meaning that most people who inherit the disorder and suffer from symptoms are male. However, female carriers of mutations in Factor VIII or Factor IX can also have difficulty making clotting factors. Hemophilia A occurs in approximately 1 in 12,000 male births, and hemophilia B in 1 in 60,000 male births. The prevalence of hemophilia A and B in the United States is estimated to be around 20,000 people, with more than 400,000 cases worldwide. Hemophilia patients suffer from spontaneous bleeding episodes as well as substantially prolonged bleeding times upon injury. In cases of severe hemophilia, spontaneous bleeding into muscles or joints is frequent and often results in permanent, disabling joint damage and can become life threatening.

Currently there is no cure for hemophilia. Treatment usually involves management of acute bleeding episodes or prophylactic treatment through factor replacement therapy by infusion of patients' missing Factor VIII or IX.

Based on Catalyst's research, Catalyst estimates worldwide sales of all Factor IX replacement products for the treatment of hemophilia B in 2014 were approximately $1.1 billion, including approximately $856 million as reported by Pfizer for its BeneFIX® product.

A complication for hemophilia patients receiving factor replacement therapy is the production of antibodies against the replacement factor, also called inhibitors. The overall prevalence of inhibitor formation is up to 30% in patients with hemophilia A and up to 5% in patients with hemophilia B. Inhibitor patients are treated with what are known as bypassing agents that initiate coagulation by a pathway that is independent of Factor VIII or Factor IX, the proteins that are deficient in hemophilia patients. Currently available bypassing agents include recombinant Factor VIIa, NovoSeven® RT, produced by Novo Nordisk, and activated prothrombin complex concentrates, marketed as FEIBA by Baxter. NovoSeven was approved in 1999 and indicated for treatment of bleeding episodes, prevention of bleeding during surgeries in patients with hemophilia A or B with inhibitors, and patients with congenital Factor VII deficiency. In 2006 , it was approved for the treatment of acquired

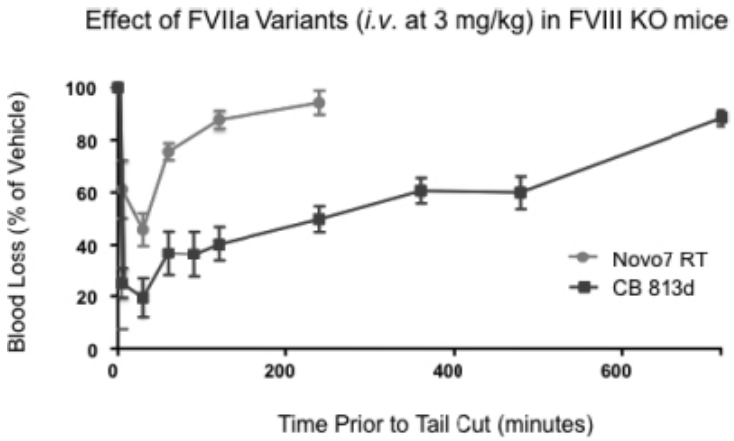
hemophilia. NovoSeven RT was approved in 2014 and is indicated for treatment of Glanzmann's thrombasthenia. According to Novo Nordisk, sales of NovoSeven RT in 2014 exceeded $1.37 billion. FEIBA is approved for use in hemophilia A and B patients with inhibitors, which Catalyst estimates, based on its research, had 2014 sales of $675 million.

Hemophilia Inhibitor Patients—Clinical Stage Factor VIIa Program

Catalyst's most advanced product candidate is CB 813d/PF-05280602, a next-generation Factor VIIa that was the subject of a Phase 1 clinical trial completed in February 2015, which evaluated the safety and tolerability, as well as pharmacokinetics, pharmacodynamics and coagulation activity in severe hemophilia A and B with and without inhibitors. CB 813d/PF-05280602 is initially being developed for the on-demand and prophylactic treatment of severe hemophilia A and B patients with inhibitors. Pfizer had filed the Investigational New Drug Application (NDA) with the FDA for this trial in August 2011 for adult males with hemophilia A or B, with or without inhibitors to Factor VIII or Factor IX. Catalyst plans to initiate a clinical efficacy trial in 2016.

In the Phase 1 clinical trial, 25 severe hemophilia A and B patients with and without inhibitors were enrolled and treated. The clinical trial design was a single ascending dose-escalation study with 1 patient treated at 0.5 µg/kg followed by 4 cohorts of 6 patients each at doses of 4.5, 9.0, 18.0, and 30.0 µg/kg. Clinical endpoints included safety, tolerability, pharmacokinetics and clot-forming activity, such as prothrombin time, or PT, activated partial thromboplastin time, or aPTT, thrombin-antithrombin activity and others. Results showed that single doses of CB 813d/PF-05280602 were well tolerated when administered to hemophilia A and B patients, and there were no instances of antibody response or thrombosis. CB 813d/PF-05280602 demonstrated pharmacological efficacy as measured by significant shortening of aPTT (activated partial thromboplastin time) and PT (prothrombin time) for up to 48 hours post dosing. The results were presented in a poster session at the International Society on Thrombosis and Haemostasis (ISTH) Meeting held in Toronto, Canada from June 20 to 25, 2015.

Catalyst designed CB 813d/PF-05280602 to combine higher clot-generating activity at the site of bleeding and improved duration of action *in vivo*. Catalyst anticipates that this product candidate could be used to treat acute bleeding episodes with both lower and fewer doses and decreased treatment time compared with existing products and other therapies in development. It was designed to allow for the effective, long-term, prophylactic management of hemophilia A and B inhibitor patients. To test this hypothesis, Catalyst compared CB 813d/PF-05280602 with NovoSeven® RT in a preclinical murine tail clip model of bleeding. In this model, mice lacking the ability to produce Factor VIII (referred to as Factor VIII knockout mice) were treated with Factor VIIa test articles and a saline control. Groups of mice were subjected to a tail clip at increasing time points after receiving the drug or saline. At each time point the amount of bleeding was compared with the saline control, with 100% blood loss indicating that the treated mice were bleeding at the same rate as if they received saline control. As shown in the graph below, CB 813d/PF-05280602 was able to prevent bleeding for significantly longer periods of time than NovoSeven®.



Catalyst has also identified treatment of surgical bleeding in both hemophilia inhibitor patients and non-hemophilia patients as attractive secondary indications for CB 813d/PF-05280602.

Hemophilia B Patients—Factor IX

Catalyst's next most advanced product candidate is CB 2679d/ISU 304, a next-generation Factor IX drug for the on-demand and prophylactic treatment of patients with hemophilia B, a chronic disease caused by a genetic deficiency in coagulation Factor IX. The National Hemophilia Foundation has recommended chronic, prophylactic treatment as the optimal therapy for patients with severe hemophilia B. CB 2679d/ISU 304 is currently in IND-enabling preclinical studies, and Catalyst intends to enter Phase 1 clinical development with its collaborator ISU Abxis in 2016. Catalyst entered into a co-development agreement with ISU Abxis in 2013. ISU Abxis is responsible for preclinical development activities and clinical development through a proof-of-concept Phase 1 study in hemophilia B patients. Catalyst retains rights for worldwide development outside South Korea.

CB 2679d/ISU 304 has demonstrated duration of action *in vivo* in preclinical models of bleeding and coagulation correction approximately 8 times longer than BeneFIX®, the currently marketed Factor IX therapeutic, and 2-3 times longer than Alprolix, Biogen Idec's approved Factor IX-Fc fusion protein.

Factor Xa

Catalyst has identified Factor Xa variants that have enhanced potency (up to 25-fold), improved safety, and superior duration of activity in rodent models of bleeding compared with a competing Factor Xa clinical candidate under development by Pfizer. Catalyst believes that a safe and effective Factor Xa product has the potential to be used both to treat hemophilia patients and to reduce blood loss in trauma and surgery in patients with normal clotting.

Factor Xa operates late in the coagulation cascade, downstream of factors absent or nonfunctional in hemophilia, at a point where the coagulation cascade is identical in both normal and hemophiliac patients. Consequently, a safe and effective Factor Xa product could function as a universal pro-coagulant. Natural, unmodified Factor Xa has been shown to be toxic at sub-therapeutic doses in rodent models, strongly suggesting that an improved, second-generation variant will be required for therapeutic applications.

The Complement Cascade as a Target for Inflammatory Disease

The complement cascade is a series of naturally occurring molecular processes that plays a central role in the body's inflammatory and immune responses. It helps to localize particular immune system cells at the site of

infection or inflammation, to rupture the membranes of pathogens, and to mediate various specific responses to antigens through effects on both B- and T-cells. Consequently, drugs that target the complement cascade could potentially be used in a variety of indications, including prevention of transplant rejection, age-related macular degeneration, cardiovascular disease, asthma, and autoimmune disease. Many key targets within the complement cascade are found at such high concentrations that it is likely to be difficult or impractical to block their action with antibodies or small molecules because extremely high drug concentrations would be required for efficacy. Catalyst believes that the enzymatic properties of an engineered novel protease could overcome some of the challenges of inhibiting the complement cascade.

Complement in Ischemia-Reperfusion Injury

Catalyst's lead inflammation development candidate, CB 2782, is a novel protease for the prevention of delayed graft function following kidney transplant as a result of ischemia-reperfusion injury. This novel protease variant is directed against complement factor C3, a target present at concentrations that may be too high to address effectively with a therapeutic antibody or small molecule but which Catalyst believes is amenable to treatment using a protease. This product candidate is expected to enter IND-enabling preclinical development in 2015.

Ischemia, the interruption of the blood supply to a part of the body, commonly results in ischemia-reperfusion injury, or IRI. Injury caused by the initial loss of oxygen from the ischemia is well known. However, the sudden restoration of blood flow to ischemic tissue (called reperfusion) activates the complement cascade, leading to the production of potent pro-inflammatory mediators that cause additional cell and tissue injury, or IRI. Mice lacking the ability to activate the complement cascade due to genetic inability to produce C3, referred to as C3 knockout mice, have been shown to experience reduced IRI in a variety of model systems relevant to IRI indications.

In kidney transplant procedures IRI is a major contributor to DGF. Patients with DGF require dialysis and extended hospitalization that is costly and damages the transplanted kidney. Approximately 16,000 kidney transplants are performed in the United States each year, with between 20-30% of patients experiencing complications with the transplanted kidney, including DGF. The occurrence of DGF is very costly because it requires the initiation of dialysis therapy, prolongs hospitalization, and can lead to transplant failure. Market research conducted for Catalyst on the use of novel proteases to pretreat kidney transplant recipients to prevent DGF projected a potential global annual revenue opportunity of approximately $600 million.

Catalyst selected CB 2782 as a development candidate from a group of specific novel proteases that cleave C3 and block activation of the complement cascade, preventing local tissue injury after reperfusion. Studies in non-human primates have demonstrated that Catalyst's novel anti-C3 proteases display potent activity, completely removing C3 from the circulation, and appear to be well tolerated.

In addition to DGF, a protease that effectively inhibits C3 could potentially have broader clinical applications in other indications such as the prevention of reperfusion injury in coronary artery bypass grafting, myocardial infarction, and stroke.

Complement in Dry Age-Related Macular Degeneration

Dry age-related macular degeneration, or AMD, is the leading cause of blindness in the elderly worldwide and according to Nature, a scientific journal, affects approximately 20 million people in the United States and EU combined, with the potential size of the dry AMD market worldwide estimated at $30 billion. The disease is a chronic condition characterized by a progressive loss of central vision due mostly to degenerative changes and/or the formation of microvascular networks in the center of the eye's visual field, called the macula. There are two forms of AMD, wet and dry. Wet AMD is the more severe form of the disease and represents approximately 10% of all AMD patients. Dry AMD is the most common form of early to intermediate stage AMD and occurs in approximately 90% of patients with the condition. While there have been recent improvements in the treatment of wet AMD, dry AMD treatment remains an unmet medical need.

Recent studies from several independent investigators have demonstrated that over 70% of the risk of developing AMD (both dry and wet forms) corresponds to mutations in human complement genes, particularly the factor H gene whose product is required for proper regulation of the complement cascade. Also recently, Roche/Genentech's Anti-Factor D antibody fragment demonstrated an approximately 20-40% reduction of lesion size growth after 18 monthly injections in a Phase 1/2 clinical trial for geographic atrophy, or GA, an advanced form of dry AMD. This clinical study suggests that inhibition of the complement cascade can have a significant effect on the progression of GA.

Catalyst is developing an anti-C3 novel protease that is being optimized for chronic administration in the eye. These molecules should have an advantage over antibodies because, while they should exhibit a similar rate of clearance from the eye as antibodies, their catalytic activity will allow them to effectively cleave C3 at protease concentrations that are far lower than the C3 target concentration. This, in turn, could be expected to allow less frequent dosing, a critical consideration for drugs injected into the eye. Catalyst expects to select a lead candidate for the treatment of dry AMD in 2016.

Protease Product Discovery Platform

Among Catalyst's scientific team, management, and advisors are leading experts in protease engineering, biology, and drug discovery. Catalyst has leveraged this expertise to develop a proprietary, industrialized protease product discovery engine composed of the following important components.

Rational Design of Improved Proteases*:* Catalyst is able to leverage its scientific team's expertise in protease structure and function and in predictive modeling to create protease variants using a rational design strategy. In this process a small number of amino acids in a given protease are substituted in an iterative fashion with other amino acids to improve the molecule's biological properties. Catalyst believes that this approach can provide Catalyst with important differentiated advantages, including:

- Increasing a protease's catalytic activity (speed in cleaving targets);
- Modulating cofactor dependence, the ability to form complexes, with other proteins to facilitate the cleavage of the target;
- Modulating inhibitor resistance to disrupt natural regulatory interactions that can reduce efficacy; and
- Adjusting pharmacokinetics, the duration of circulation through the body and presence in tissues.

Catalyst has used this technology to create its next-generation Factor VIIa, Factor IX, and Factor Xa variants.

Creation and Selection of Novel Proteases: Catalyst has optimized a propriety method to create novel proteases that cleave a disease-causing protein target. First, it constructs a large library of proteases containing more than ten billion variants of a starting protease. Catalyst's most commonly used starting protease scaffolds are membrane type serine protease 1, or MTSP-1, and urokinase plasminogen activator, or uPA. From these libraries, Catalyst uses a patent-protected process to select lead proteases that preferentially cleave the target of interest. The field of leads can be narrowed by repeating the selection process or by counter-selecting the library to reduce cleavage of non-target proteins. Many parts of this core technology have been automated, facilitating rapid identification of novel engineered proteases with new substrate specificities not previously contemplated as potential therapeutics. Catalyst believes that this approach can provide the Company with important differentiated advantages including:

- Evolving the specificity and activity of a starting protease scaffold towards a desired target;
- Reducing the activity of a protease towards other targets; and
- Increasing resistance to naturally occurring protease inhibitors.

This technology was used to select novel MTSP-1 and uPA-based variants that cleave complement factor C3, leading to the selection of Catalyst's CB 2782 drug candidate.

Confirmation of Activity and Selectivity Through In Vitro Assays*:* Catalyst has developed its own and uses highly specialized *in vitro* assays that measure the properties of its proteases to ensure that they cleave the correct target in the desired manner.

Protease Expression and Purification: Catalyst uses both mammalian and bacterial systems to manufacture protease developmental leads and product candidates for preclinical testing. The production and purification of these proteases are highly specialized processes in which Catalyst has considerable expertise and know-how. For example, Catalyst's next-generation coagulation Factor VIIa, Factor IX, and Factor Xa product candidates require specialized mammalian cells that correctly modify the desired factor to maintain its activity *in vivo*.

Catalyst's Strategy

Catalyst's goal is to use its transformative protease platform to become a leading company in the discovery, development, and commercialization of products based on engineered human proteases. Key elements of Catalyst's strategy to achieve this goal are to:

- ***Advance the Clinical Development of Catalyst's Lead Product Candidates:*** Catalyst's most advanced drug candidate, CB 813d/PF-05280602, for the treatment of hemophilia and surgical bleeding, recently completed a Phase 1 clinical trial evaluating safety and tolerability as well as pharmacokinetics, pharmacodynamics and coagulation activity. Catalyst expects that it will advance CB 813d/PF-05280602 into a clinical efficacy trial in hemophilia A and hemophilia B inhibitor patients in 2016. In addition, Catalyst expects that its collaborator ISU Abxis will initiate a Phase 1 clinical trial of CB 2679d/ISU 304, a next-generation Factor IX drug candidate for the treatment of patients with hemophilia B, in 2016. Catalyst also expects to initiate preclinical IND enabling studies for its anti-C3 protease for the prevention of renal DGF in 2015.
- ***Leverage Existing Strategic Factor IX Collaboration:*** Catalyst has established a strategic collaboration with ISU Abxis for its CB 2679d/ISU 304 program. Catalyst is entitled to up front and milestone payments of up to $5 million and has retained worldwide commercialization rights, except for ISU Abxis' right of first refusal for commercialization rights in Korea, and subject to a future profit sharing arrangement. Catalyst believes its Factor IX collaboration contributes to its ability to advance its Factor IX product candidate to the clinical stage.
- ***Build a Hemostasis Franchise:*** Catalyst intends to build on its recent clinical and preclinical success in Factor VIIa and Factor IX by advancing its Factor VIIa program into a clinical efficacy trial in 2016. The combination of a Factor VIIa product entering into a clinical efficacy trial and two additional wholly owned (except for CB 2679d/ISU 304 in Korea) coagulation factors could allow Catalyst to build a strong hemostasis franchise.
- ***Build an Anti-complement Franchise.*** Catalyst's novel protease approach to regulating the complement cascade has the potential to create several highly differentiated drug candidates that address diseases with significant unmet medical needs, including DGF and dry AMD.

Collaborations

Pfizer

On June 20, 2009, Catalyst and Wyeth, now a wholly owned subsidiary of Pfizer, entered into a Research and License Agreement, as subsequently amended on October 26, 2010, June 20, 2011, December 21, 2011, and August 20, 2013, or the Pfizer Agreement. Under the Pfizer Agreement, Catalyst and Pfizer collaborated on the development of novel human Factor VIIa products, and Catalyst granted Pfizer the exclusive rights to develop and commercialize the licensed products on a worldwide basis. During a two-year collaboration period, Pfizer reimbursed Catalyst for certain of its costs incurred in the development of the licensed products, including FTE-based research payments. Pfizer has terminated the agreement without cause effective June 1, 2015. To Catalyst's knowledge, the termination was the result of an internal review of products in development at Pfizer.

Under the agreement, Pfizer has been responsible for all clinical development, manufacturing, and commercialization activities for the Factor VIIa products developed in the collaboration, and upon the agreement's termination, Catalyst will be responsible for all such matters.

Pfizer paid Catalyst a non-refundable upfront signing fee of $21.0 million, paid us $14.0 million upon the attainment of certain milestones, and reimbursed us for $6.2 million of research expenses. As of March 31, 2015, the cumulative aggregate payments received by Catalyst under this agreement were $41.2 million.

ISU Abxis

On September 16, 2013, Catalyst and ISU Abxis entered into a License and Collaboration Agreement, as subsequently amended on October 31, 2014, or the ISU Abxis Agreement. Under the ISU Abxis Agreement, Catalyst licensed its proprietary human Factor IX products to ISU Abxis for initial development in South Korea. ISU Abxis is responsible for development and manufacturing of the licensed products through Phase 1 clinical trials. Until the completion of Phase 1 development, ISU Abxis also has a right of first refusal with respect to commercialization rights for the licensed products in South Korea. Catalyst has the sole rights and responsibility for worldwide development, manufacture, and commercialization of Factor IX products after Phase 1 development, unless ISU Abxis has exercised its right of first refusal regarding commercialization rights in Korea, in which case Catalyst's rights are throughout the entire world excluding South Korea. ISU Abxis's development and manufacturing rights (but not its right of first refusal) will also terminate in the event that Catalyst enters into a license agreement with another party to develop, manufacture, and commercialize Factor IX products in at least two major market territories.

Prior to completion of Phase 1 clinical studies, ISU Abxis is responsible for and will fund the clinical development and manufacture of the licensed products. ISU Abxis will also reimburse Catalyst for a portion of its costs relating to intellectual property filings and maintenance thereof on products. Catalyst and ISU Abxis have established a joint steering committee to, among other things, coordinate and assist in planning and execution of development activities and review the product development plan.

ISU Abxis paid Catalyst a non-refundable upfront signing fee of $1.75 million. ISU Abxis is also obligated to make contingent cash payments to Catalyst of up to $3.25 million payable based upon the achievement of predefined development milestones (none of which have been achieved as of March 31, 2015). In addition, Catalyst is required to pay ISU Abxis a royalty of between a quarter and a third of Catalyst's net profits determined on a country-by-country basis until the expiration of the last valid claim in such country or fifteen years after the first commercial sale of a product in such country, whichever is sooner, after which time Catalyst will have a perpetual, irrevocable and non-exclusive license to the applicable technology with respect to such country. However, if the Phase 1 study of the Factor IX products is not completed by a specified date and Catalyst continues development of Factor IX products using cell lines created by ISU Abxis or in a manner that otherwise would be covered by a patent held by ISU Abxis or if the Phase 1 trial is not successful and Catalyst continues to develop the Factor IX products, Catalyst will be obligated to pay ISU Abxis a low single-digit royalty on net product sales, in addition to up to $2.0 million in potential milestone payments to ISU Abxis. Either party may terminate the ISU Abxis Agreement in its entirety upon written notice of a material uncured breach or upon the other party's bankruptcy, and Catalyst may terminate the agreement upon prior notice if the Phase 1 study is not completed by a certain date. As of March 31, 2015, the cumulative aggregate payments received by Catalyst under this agreement were $1.75 million, and Catalyst had made no payments to ISU Abxis.

Intellectual Property

Catalyst has established a broad intellectual property portfolio, including patents and patent applications covering the identification, selection, optimization, and manufacture of human proteases, the composition of matter and methods of use of Catalyst's product candidates and related technology, and other inventions that are important to Catalyst's business.

Catalyst strives to protect the proprietary technologies that it believes are important to its business, including by seeking, maintaining and defending patent rights, whether developed internally or in conjunction with or in-

licensed from third parties. Catalyst also relies on trade secrets relating to its proprietary technology platform and on know-how, continuing technological innovation and in-licensing opportunities to develop, strengthen, and maintain its proprietary position in the field of human protease engineering.

As more fully described below, as of March 20, 2015, Catalyst's patent portfolio included approximately 130 patents; including 9 issued U.S. patents and 7 U.S. patent applications, plus an additional 112 pending foreign patent applications. Catalyst also relies on trade secrets and careful monitoring of its proprietary information to protect aspects of its business that are not amenable to, or that Catalyst does not consider appropriate for, patent protection.

Catalyst's success will depend significantly on its ability to:

- Obtain and maintain patent and other proprietary protection for commercially important technology, inventions and know-how related to its business;
- Defend and enforce its patents;
- Maintain its licenses to use intellectual property owned by third parties; and
- Preserve the confidentiality of its trade secrets and operate without infringing the valid and enforceable patents and other proprietary rights of third parties.

Although Catalyst takes steps to protect its proprietary information and trade secrets, including through contractual means with its employees and consultants, third parties may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to Catalyst's trade secrets or disclose its technology. Thus, Catalyst may not be able to meaningfully protect its trade secrets.

In addition, a third-party may hold intellectual property, including patent rights that are important or necessary to the development of Catalyst's products. It may be necessary for Catalyst to use the patented or proprietary technology of third parties to commercialize its products, in which case Catalyst would be required to obtain a license from these third parties on commercially reasonable terms, or Catalyst's business could be harmed, possibly materially. For example, certain of the methods for screening Catalyst's novel proteases, Catalyst's non-complement proteases modified to cleave a complement protein such as C2 or C3, or for using proteases as scaffolds, are covered by patents held by third parties. Although Catalyst has obtained exclusive licenses to these patents from these third parties on what Catalyst believes are commercially reasonable terms, if Catalyst were not able to obtain a license on similar technology, or were not able to obtain a license on commercially reasonable terms, its business could be harmed, possibly materially.

The patent positions of biopharmaceutical companies like Catalyst are generally uncertain and involve complex legal, scientific, and factual questions. In addition, the coverage claimed in a patent application can be significantly reduced before the patent is issued, and its scope can be reinterpreted after issuance. Consequently, Catalyst does not know whether any of its product candidates will be protectable or remain protected by enforceable patents. Catalyst cannot predict whether the patent applications it is currently pursuing will issue as patents in any particular jurisdiction or whether the claims of any issued patents will provide sufficient proprietary protection from competitors. Any patents that Catalyst holds may be challenged, circumvented, or invalidated by third parties.

Because patent applications in the United States and certain other jurisdictions are maintained in secrecy for 18 months, and since publication of discoveries in the scientific or patent literature often lags behind actual discoveries, Catalyst cannot be certain of the priority of inventions covered by pending patent applications. Moreover, Catalyst may have to participate in interference proceedings declared by the United States Patent and Trademark Office, or USPTO, or a foreign patent office to determine priority of invention or in post-grant challenge proceedings, such as oppositions, that challenge priority of invention or other features of patentability. Such proceedings could result in substantial cost, even if the eventual outcome is favorable to Catalyst.

All of Catalyst's patents and applications were internally developed and assigned to Catalyst, except for one family of patents (6 foreign patents) and patent applications (9 pending applications) that are generically directed to methods for screening Catalyst's novel proteases and pending claims directed to uses of proteases as scaffolds, which are exclusively licensed, and one pending Korean patent application that is co-owned. In addition, members of the 4902 family directed to screening methods are jointly owned with Torrey Pines Institute, which licensed its interest to Catalyst. These patents and patent applications include:

- 45 patents, including 1 issued U.S. patent, and 51 patent applications, including 1 U.S. patent application, covering modified Factor VII polypeptides, such as Catalyst's lead product candidate, CB 813d/PF-05280602, and methods of production of modified Factor VII polypeptides. The U.S. patent, with patent term adjustment, and patent application, if granted, expires or is expected to expire, in 2031 and 2028. The foreign patents and patent applications, if granted, expire, or are expected to expire, respectively, in 2028-2029.
- 2 issued U.S. patents and 18 patent applications, including 1 U.S. patent application, covering modified Factor IX polypeptides, such as Catalyst's clinical candidate CB 2679d/ISU 304. The U.S. patents expire in 2030-31, and the patent applications, if granted, are expected to expire in 2031.
- 47 patents, including 2 issued U.S. patents, and 29 patent applications, including 3 U.S. patent applications, covering novel proteases. The U.S. patents, including patent term adjustment, and patent applications, if granted, expire or are expected to expire, in 2025-2027, and the foreign patents and foreign patent applications, if granted, expire, or are expected to expire, in 2023-2027.
- 16 patent applications, including 2 U.S. patent applications, covering improved Factor Xa variants. The patent applications, if granted, are expected to expire in 2032.
- 33 patents, including 2 issued U.S. patents, and 6 patent applications covering methods for identifying proteases that cleave or inactivate a protein target. The U.S. patents, including patent term adjustment, expire in 2027-2030, and the foreign patents and foreign patent applications, if granted, expire, or are expected to expire, in 2023-2027.
- 2 issued U.S. patents covering the MTSP-1 protease scaffold used for Catalyst's novel proteases, which expire in 2019.

The term for individual patents depends upon the legal term for patents in the countries in which they are granted. In most countries, including the United States, the patent term is 20 years from the earliest claimed filing date of a non-provisional patent application in that country or the international filing date. In the United States, a patent's term may, in certain cases, be lengthened by patent term adjustment, which compensates a patentee for administrative delays by the United States Patent and Trademark Office in examining and granting a patent, or may be shortened if a patent is terminally disclaimed over a commonly owned patent or a patent naming a common inventor and having an earlier expiration date.

The Drug Price Competition and Patent Term Restoration Act of 1984, or the Hatch-Waxman Act, permits a patent term extension of up to five years beyond the expiration date of a U.S. patent as partial compensation for the length of time the drug is under regulatory review while the patent is in force. A patent term extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval. Only one patent applicable to each regulatory review period may be extended and only those claims covering the approved drug, a method for using it or a method for manufacturing it may be extended. Similar provisions are available in the European Union and certain other foreign jurisdictions to extend the term of a patent that covers an approved drug.

In the future, to the extent Catalyst's product candidates including CB 813d/PF-05280602, CB 2679d/ISU 304, and novel anti-C3 proteases receive approval by the FDA or foreign regulatory authorities, Catalyst expects to apply for patent term extensions on issued patents covering those products, depending upon the length of the clinical trials for each drug and other factors.

Manufacturing

Catalyst does not have any manufacturing facilities or personnel. Catalyst currently relies, and expects to continue to rely, on third parties for the manufacture of its product candidates for preclinical and clinical testing, as well as for commercial manufacture if its product candidates receive marketing approval. Pfizer has historically been responsible for manufacturing CB 813d/PF-05280602 for clinical trials pursuant to Catalyst's license and collaboration agreement with Pfizer, but Catalyst will need to transition such activities from Pfizer as a result of Pfizer's termination of the agreement effective June 1, 2015. Catalyst is in discussions with Pfizer about obtaining manufacturing technology and know-how related to CB 813d/PF-05280602, although there can be no assurance that Catalyst and Pfizer will agree to the terms or mechanism for such transfer, or that any such technology and know-how transfer will be successful. ISU Abxis is responsible for manufacturing CB 2679d/ISU 304, Catalyst's next-generation Factor IX drug candidate, through the completion of Phase 1 clinical trials, after which point Catalyst will be responsible for manufacturing this product candidate. Catalyst intends to identify and qualify third-party manufacturers for this product candidate.

Commercialization

Catalyst has not yet established a sales, marketing, or product distribution infrastructure for its other product candidates, which are still in preclinical or early clinical development. Except for ISU Abxis' potential rights to commercialize CB 2679d/ISU 304 in Korea, Catalyst generally expects to retain commercial rights for the company's product candidates. Catalyst believes that it will be possible to access the United States hemophilia market through a focused, specialized sales force. Catalyst has not yet developed a commercial strategy outside of the United States.

Subject to receiving marketing approvals, Catalyst expects to commence commercialization activities by building a focused sales and marketing organization in the United States to sell its products. Catalyst believes that such an organization will be able to address the community of hematologists who are the key specialists in treating hemophilia patients for which its product candidates are being developed.

Competition

Some of Catalyst's proposed products will face competition from approved therapeutics. Competition for their pipeline products comes primarily from large, well-established pharmaceutical companies, who have greater financial resources and expertise in research and development, manufacturing, conducting clinical trials, and marketing approved products. Mergers and acquisitions within the pharmaceutical and biotechnology industries may further concentrate competitors' resources. Catalyst is not only competing with these companies in terms of technology, but also in recruiting and retaining qualified scientists and management personnel, in establishing partnerships with clinical trial sites, and in registering patients into clinical trials.

In addition to current standard of care for patients, clinical trials are being pursued by a number of parties in the field of biologics and in Catalyst's lead indications. These products in development may provide efficacy, safety, convenience, and other benefits that are not provided by currently marketed therapies. As a result, they may provide significant competition for any of Catalyst's product candidates for which it obtains marketing approval. Based on publically available information, the following are some of the products being developed by competitors in indications overlapping with those of Catalyst's programs.

- ***Factor VIIa Competition***: Novo Nordisk's NovoSeven is a recombinant Factor VIIa indicated for treatment of bleeding episodes. NovoSeven was FDA approved in 1999 for use in treatment of hemophilia A or B patients with inhibitors to Factor VIII or Factor IX. The treatment has since been approved for use in patients with Factor VII deficiency and Glanzmann's thrombasthenia. Several other companies have competing products under development, including companies developing biosimilars of NovoSeven, such as Baxter, whose product candidate recently completed a Phase 3 clinical trial, and rEVO Biologics, whose product is in a Phase 3 clinical trial, as well as Roche, whose biospecific

Factor VIII-Factor IX monoclonal antibody has recently completed a Phase 1/2 clinical trial, and Alnylam, whose investigational RNAi therapeutic targeting antithrombin for the treatment of hemophilia is in a Phase 1 clinical trial.

- ***Factor IX Competition:*** BeneFIX, a recombinant Factor IX indicated for treatment of hemophilia B patients, was approved in 1997 and is marketed by Pfizer, which reported 2014 revenues of $856 million, according to Pfizer's Annual Report on Form 10-K. In addition, Alprolix, a Factor IX-Fc product approved in 2014, is marketed by Biogen Idec, and Rixubis, a recombinant Factor IX biosimilar approved in 2013, is marketed by Baxter, with 2014 revenues of $180 million, which Catalyst estimates, based on its research. Numerous other companies have competing products under development, including recombinant Factor IX product candidates in Phase 3 trials or development.
- ***Factor Xa Competition:*** FEIBA, activated prothrombin complex concentrate containing Factor Xa, is approved for use in hemophilia A and B patients with inhibitors with estimated 2014 revenues of $675 million, which Catalyst estimates, based on its research. Pfizer is developing a Factor Xa variant, for the indication of intracerebral hemorrhage, which is in Phase 1 trials.
- ***Delayed Graft Function Competition:*** While there are no currently approved treatments for DGF that Catalyst believes would pose competitive risk, several companies are developing antibody and small molecule-based product candidates currently in Phase 2 studies.
- ***Dry AMD Competition:*** While there are no currently approved treatments for dry AMD that Catalyst believes would pose competitive risk, several companies, including Genentech and Novartis, are developing antibody-based product candidates for treatment of dry AMD currently in Phase 2 or Phase 3 studies, and Ophthotech is developing its commercially available product, Zimura, for indications in both dry and wet AMD.

Catalyst's commercial opportunity in different indications could be reduced or eliminated if its competitors develop and market products that are more convenient to use, more effective, less expensive, and safer to use than Catalyst's products. Furthermore, if competitors gain FDA approval faster than Catalyst does, Catalyst may be unable to establish a strong market presence or to gain market share. The key competitive factors affecting the success of all of Catalyst's product candidates, if approved, are likely to be their efficacy, safety, convenience, price, the level of generic competition, and the availability of reimbursement from government and other third-party payors.

Government Regulation

As a clinical-stage biopharmaceutical company that operates in the United States, Catalyst is subject to extensive regulation. Catalyst's engineered human protease products will be regulated as biological products. Biological products, including engineered human proteases, are subject to regulation under the Federal Food, Drug, and Cosmetic Act, or FD&C Act, and the Public Health Service Act, or PHS Act, and other federal, state, local, and foreign statutes and regulations. The FD&C Act and the PHS Act and their implementing regulations govern, among other things, the research, development, testing, manufacturing, quality control, approval, labeling, packaging, storage, record-keeping, promotion, advertising, distribution, post-approval monitoring and reporting, marketing and export and import of biological products. FDA approval must be obtained before clinical testing of a biological product begins and before the marketing of biological products. The process of obtaining regulatory approvals and the subsequent compliance with federal, state, local, and foreign statutes and regulations require the expenditure of substantial time and financial resources. Failure to comply with the applicable U.S. requirements at any time during the product development, the approval process, or after product approval, may subject an applicant to administrative or judicial sanctions. FDA sanctions could include, among other actions, refusal to approve pending applications, withdrawal of an approval, a clinical hold, warning letters, product recalls or withdrawals from the market, product seizures, total or partial suspension of production or distribution injunctions, fines, refusals of government contracts, restitution, disgorgement or civil or criminal penalties.

U.S. Biological Products Development Process

The process required by the FDA before a biological product may be marketed in the United States generally involves the following:

- completion of nonclinical laboratory tests and animal studies according to good laboratory practices, or GLPs, and applicable requirements for the humane use of laboratory animals or other applicable regulations;
- submission to the FDA of an IND application, which must become effective before human clinical trials may begin;
- performance of adequate and well-controlled human clinical trials according to the FDA's regulations, commonly referred to as good clinical practices, or GCPs, and any additional requirements for the protection of human research subjects and their health information, to establish the safety and efficacy of the proposed biological product for its intended use;
- submission to the FDA of a BLA for marketing approval that includes substantive evidence of safety, purity and potency from results of nonclinical testing and clinical trials;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities where the biological product is produced to assess compliance with GMP, to assure that the facilities, methods and controls are adequate to preserve the biological product's identity, strength, quality and purity and, if applicable, the FDA's current good tissue practices, or GTPs, for the use of human cellular and tissue products;
- potential FDA audit of the nonclinical study and clinical trial sites that generated the data in support of the BLA; and
- FDA review and approval, or licensure, of the BLA.

Before testing any biological product candidate, including an engineered human protease, in humans, the product candidate enters the preclinical testing stage. Preclinical tests, also referred to as nonclinical studies, include laboratory evaluations of product chemistry, toxicity and formulation, as well as animal studies to assess the potential safety and activity of the product candidate. The conduct of the preclinical tests must comply with federal regulations and requirements including GLPs.

The clinical trial sponsor must submit the results of the preclinical tests, together with the manufacturing information, analytical data, any available clinical data or literature and a proposed clinical protocol, to the FDA as part of the IND. Some preclinical testing may continue even after an IND is submitted. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA places the clinical study on a clinical hold within that 30-day time period. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. The FDA may also impose clinical holds on a biological product candidate at any time before or during clinical trials due to safety concerns or non-compliance. If the FDA imposes a clinical hold, trials may not recommence without FDA authorization and then only under terms authorized by the FDA. Accordingly, Catalyst cannot be sure that submission of an IND will result in the FDA allowing clinical trials to begin, or that, once begun, issues will not arise that suspend or terminate such trials.

Clinical trials involve the administration of the biological product candidate to healthy volunteers or patients under the supervision of qualified investigators, generally physicians not employed by or under the trial sponsor's control. Clinical trials are conducted under protocols detailing, among other things, the objectives of the clinical trial, dosing procedures, subject selection and exclusion criteria, and the parameters to be used to monitor subject safety, including stopping rules that assure a clinical trial will be stopped if certain adverse events should occur. Each protocol and any amendments to the protocol must be submitted to the FDA as part of the IND. Clinical trials must be conducted and monitored in accordance with the FDA's regulations comprising the GCP requirements, including the requirement that all research patients provide informed consent. Further,

each clinical trial must be reviewed and approved by an independent institutional review board, or IRB, at or servicing each institution at which the clinical trial will be conducted. An IRB is charged with protecting the welfare and rights of trial participants and considers such items as whether the risks to individuals participating in the clinical trials are minimized and are reasonable in relation to anticipated benefits. The IRB also approves the form and content of the informed consent that must be signed by each clinical trial subject or his or her legal representative and must monitor the clinical trial until completed. Clinical trials also must be reviewed by an institutional biosafety committee, or IBC, a local institutional committee that reviews and oversees basic and clinical research conducted at that institution. The IBC assesses the safety of the research and identifies any potential risk to public health or the environment.

Human clinical trials are typically conducted in three sequential phases that may overlap or be combined:

- *Phase 1*. The biological product is initially introduced into healthy human subjects and tested for safety. In the case of some products for severe or life-threatening diseases, especially when the product may be too inherently toxic to ethically administer to healthy volunteers, the initial human testing is often conducted in patients
- *Phase 2*. The biological product is evaluated in a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance, optimal dosage and dosing schedule.
- *Phase 3*. Clinical trials are undertaken to further evaluate dosage, clinical efficacy, potency, and safety in an expanded patient population at geographically dispersed clinical trial sites. These clinical trials are intended to establish the overall risk/benefit ratio of the product and provide an adequate basis for product labeling.

Post-approval clinical trials, sometimes referred to as Phase 4 clinical trials, may be conducted after initial marketing approval. These clinical trials are used to gain additional experience from the treatment of patients in the intended therapeutic indication, particularly for long-term safety follow-up.

Engineered protease biopharmaceuticals are a relatively new class of therapeutics. Because this is a relatively new and expanding area of novel therapeutic interventions, there can be no assurance as to the length of the trial period, the number of patients the FDA will require to be enrolled in the trials in order to establish the safety, efficacy, purity and potency of the engineered protease products, or that the data generated in these trials will be acceptable to the FDA to support marketing approval.

Concurrently with clinical trials, companies usually complete additional animal studies and must also develop additional information about the physical characteristics of the biological product as well as finalize a process for manufacturing the product in commercial quantities in accordance with GMP requirements. To help reduce the risk of the introduction of adventitious agents with use of biological products, the PHS Act emphasizes the importance of manufacturing control for products whose attributes cannot be precisely defined. The manufacturing process must be capable of consistently producing quality batches of the product candidate and, among other things, the sponsor must develop methods for testing the identity, strength, quality, potency and purity of the final biological product. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the biological product candidate does not undergo unacceptable deterioration over its shelf life.

U.S. Review and Approval Processes

After the completion of clinical trials of a biological product, FDA approval of a BLA must be obtained before commercial marketing of the biological product. The BLA must include results of product development, laboratory and animal studies, human trials, information on the manufacture and composition of the product, proposed labeling and other relevant information. The FDA may grant deferrals for submission of data or full or

partial waivers. The testing and approval processes require substantial time and effort and there can be no assurance that the FDA will accept the BLA for filing and, even if filed, that any approval will be granted on a timely basis, if at all.

Under the Prescription Drug User Fee Act, or PDUFA, as amended, each BLA must be accompanied by a significant user fee. The FDA adjusts the PDUFA user fees on an annual basis. PDUFA also imposes an annual product fee for biological products and an annual establishment fee on facilities used to manufacture prescription biological products. Fee waivers or reductions are available in certain circumstances, including a waiver of the application fee for the first application filed by a small business. Additionally, no user fees are assessed on BLAs for products designated as orphan drugs, unless the product also includes a non-orphan indication.

Within 60 days following submission of the application, the FDA reviews a BLA submitted to determine if it is substantially complete before the agency accepts it for filing. The FDA may refuse to file any BLA that it deems incomplete or not properly reviewable at the time of submission and may request additional information. In this event, the BLA must be resubmitted with the additional information. The resubmitted application also is subject to review before the FDA accepts it for filing. Once the submission is accepted for filing, the FDA begins an in-depth substantive review of the BLA. The FDA reviews the BLA to determine, among other things, whether the proposed product is safe and potent, or effective, for its intended use, and has an acceptable purity profile, and whether the product is being manufactured in accordance with GMP to assure and preserve the product's identity, safety, strength, quality, potency and purity. The FDA may refer applications for novel biological products or biological products that present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions. During the biological product approval process, the FDA also will determine whether a Risk Evaluation and Mitigation Strategy, or REMS, is necessary to assure the safe use of the biological product. If the FDA concludes a REMS is needed, the sponsor of the BLA must submit a proposed REMS. The FDA will not approve a BLA without a REMS, if required.

Before approving a BLA, the FDA will inspect the facilities at which the product is manufactured. The FDA will not approve the product unless it determines that the manufacturing processes and facilities are in compliance with GMP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving a BLA, the FDA will typically inspect one or more clinical sites to assure that the clinical trials were conducted in compliance with IND trial requirements and GCP requirements. To assure GMP and GCP compliance, an applicant must incur significant expenditure of time, money and effort in the areas of training, record keeping, production, and quality control.

In addition, under the Pediatric Research Equity Act, or PREA, a BLA or supplement to a BLA must contain data to assess the safety and effectiveness of the product for the claimed indications in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The FDA may grant deferrals for submission of data or full or partial waivers.

Notwithstanding the submission of relevant data and information, the FDA may ultimately decide that the BLA does not satisfy its regulatory criteria for approval and deny approval. Data obtained from clinical trials are not always conclusive and the FDA may interpret data differently than Catalyst interprets the same data. If the agency decides not to approve the BLA in its present form, the FDA will issue a complete response letter that describes all of the specific deficiencies in the BLA identified by the FDA. The deficiencies identified may be minor, for example, requiring labeling changes, or major, for example, requiring additional clinical trials. Additionally, the complete response letter may include recommended actions that the applicant might take to place the application in a condition for approval. If a complete response letter is issued, the applicant may either resubmit the BLA, addressing all of the deficiencies identified in the letter, or withdraw the application.

If a product receives regulatory approval, the approval may be significantly limited to specific diseases and dosages or the indications for use may otherwise be limited, which could restrict the commercial value of the product. Further, the FDA may require that certain contraindications, warnings or precautions be included in the product labeling. The FDA may impose restrictions and conditions on product distribution, prescribing, or dispensing in the form of a REMS, or otherwise limit the scope of any approval. In addition, the FDA may require post marketing clinical trials, sometimes referred to as Phase 4 clinical trials, designed to further assess a biological product's safety and effectiveness, and testing and surveillance programs to monitor the safety of approved products that have been commercialized.

The FDA has agreed to certain review goals under PDUFA, and aims to complete its review of 90% of standard BLAs within ten months from filing and 90% of priority BLAs within six months from filing. The FDA does not always meet its PDUFA goal dates for standard and priority BLAs and its review goals are subject to change from time to time. The review process and the PDUFA goal date may be extended by three months if the FDA requests, or the BLA sponsor otherwise provides, additional information or clarification regarding information already provided in the submission within the last three months before the PDUFA goal date.

Fast Track Designation, Accelerated Approval, Priority Review and Breakthrough Therapy Programs

The FDA has a Fast Track program that is intended to expedite or facilitate the process for reviewing new drugs and biological products that meet certain criteria. Specifically, new drugs and biological products are eligible for Fast Track designation if they are intended to treat a serious or life-threatening condition and demonstrate the potential to address unmet medical needs for the condition. Fast Track designation applies to the combination of the product and the specific indication for which it is being studied. The sponsor of a new drug or biological product may request the FDA to designate the drug or biological product as a Fast Track product at any time during the clinical development of the product. Under a Fast Track designation, the FDA may consider for review sections of the marketing application on a rolling basis before the complete application is submitted, if the sponsor provides a schedule for the submission of the sections of the application, the FDA agrees to accept sections of the application and determines that the schedule is acceptable, and the sponsor pays any required user fees upon submission of the first section of the application.

Other types of FDA programs intended to expedite development and review, such as priority review, accelerated approval and Breakthrough Therapy designation, also exist. A product is eligible for priority review if it has the potential to provide safe and effective therapy where no satisfactory alternative therapy exists or a significant improvement in the treatment, diagnosis or prevention of a disease compared to marketed products. The FDA will attempt to direct additional resources to the evaluation of an application for a new drug or biological product designated for priority review in an effort to facilitate the review. Additionally, a product may be eligible for accelerated approval. Drug or biological products studied for their safety and effectiveness in treating serious or life-threatening illnesses and that provide meaningful therapeutic benefit over existing treatments may receive accelerated approval, which means that they may be approved on the basis of adequate and well-controlled clinical trials establishing that the product has an effect on a surrogate endpoint that is reasonably likely to predict a clinical benefit, or on the basis of an effect on a clinical endpoint other than survival or irreversible morbidity. As a condition of approval, the FDA may require that a sponsor of a drug or biological product receiving accelerated approval perform adequate and well-controlled post-marketing clinical trials. In addition, the FDA currently requires as a condition for accelerated approval pre-approval of promotional materials, which could adversely impact the timing of the commercial launch of the product.

A product may also be eligible for receipt of a Breakthrough Therapy designation. The Breakthrough Therapy designation is intended to expedite the FDA's review of a potential new drug for serious or life-threatening diseases where "preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development." The designation of a drug as a Breakthrough Therapy provides the same benefits as are available under the Fast Track program, as well as intensive FDA guidance on the product's

development program. Fast Track designation, priority review, accelerated approval and Breakthrough Therapy designation do not change the standards for approval, but may expedite the development or approval process.

Post-approval Requirements

Maintaining substantial compliance with applicable federal, state and local statutes and regulations requires the expenditure of substantial time and financial resources. Rigorous and extensive FDA regulation of biological products continues after approval, particularly with respect to GMP. Catalyst relies, and expects to continue to rely, on third parties for the production of clinical and commercial quantities of any products that Catalyst may commercialize. Manufacturers of Catalyst's products are required to comply with applicable requirements in the GMP regulations, including quality control and quality assurance and maintenance of records and documentation. Other post-approval requirements applicable to biological products include reporting of GMP deviations that may affect the identity, potency, purity and overall safety of a distributed product, record-keeping requirements, reporting of adverse effects, reporting updated safety and efficacy information, and complying with electronic record and signature requirements. After a BLA is approved, the product also may be subject to official lot release. As part of the manufacturing process, the manufacturer is required to perform certain tests on each lot of the product before it is released for distribution. If the product is subject to official release by the FDA, the manufacturer submits samples of each lot of product to the FDA together with a release protocol showing a summary of the history of manufacture of the lot and the results of all of the manufacturer's tests performed on the lot. In addition, the FDA conducts laboratory research related to the regulatory standards on the safety, purity, potency and effectiveness of biological products.

Catalyst also must comply with the FDA's advertising and promotion requirements, such as those related to direct-to-consumer advertising, the prohibition on promoting products for uses or in patient populations that are not described in the product's approved labeling (known as "off-label use"), industry-sponsored scientific and educational activities, and promotional activities involving the internet. Discovery of previously unknown problems or the failure to comply with the applicable regulatory requirements may result in restrictions on the marketing of a product or withdrawal of the product from the market as well as possible civil or criminal sanctions. Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process or after approval may subject an applicant or manufacturer to administrative or judicial civil or criminal sanctions and adverse publicity. FDA sanctions could include refusal to approve pending applications, withdrawal of an approval, clinical hold, warning or untitled letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, mandated corrective advertising or communications with doctors, debarment, restitution, disgorgement of profits, or civil or criminal penalties. Any agency or judicial enforcement action could have a material adverse effect on us.

Biological product manufacturers and other entities involved in the manufacture and distribution of approved biological products are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with GMPs and other laws. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain GMP compliance. Discovery of problems with a product after approval may result in restrictions on a product, manufacturer or holder of an approved BLA, including withdrawal of the product from the market. In addition, changes to the manufacturing process or facility generally require prior FDA approval before being implemented and other types of changes to the approved product, such as adding new indications and additional labeling claims, are also subject to further FDA review and approval.

U.S. Patent Term Restoration and Marketing Exclusivity

The Biologics Price Competition and Innovation Act, or BPCIA, amended the PHS Act to authorize the FDA to approve similar versions of innovative biologics, commonly known as biosimilars. A competitor seeking

approval of a biosimilar must file an application to establish its molecule as highly similar to an approved innovator biologic, among other requirements. The BPCIA, however, bars the FDA from accepting biosimilar applications for 4 years after an innovator biological product receives initial marketing approval and from approving biosimilar applications for 12 years after an innovator biological product receives initial marketing approval. As innovative biological products, Catalyst believes that its products would receive this data protection if the FDA approves them for marketing.

Pediatric exclusivity is another type of regulatory market exclusivity that may apply to biological products approved in the United States. Pediatric exclusivity, if granted, adds six months to existing exclusivity periods, include the 4- and 12-year periods discussed. This six-month exclusivity, which runs from the end of other exclusivity protection or patent term, may be granted based on the voluntary completion of a pediatric trial in accordance with an FDA-issued "Written Request" for such a trial.

Depending upon the timing, duration and specifics of the FDA approval of the use of Catalyst's product candidates, some of Catalyst's U.S. patents, if granted, may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, commonly referred to as the Hatch-Waxman Act. The Hatch-Waxman Act permits a patent restoration term of up to five years, as compensation for patent term lost during product development and the FDA regulatory review process. However, patent term restoration cannot extend the remaining term of a patent beyond a total of 14 years from the product's approval date. The patent term restoration period is generally one-half the time between the effective date of an IND and the submission date of a BLA plus the time between the submission date of a BLA and the approval of that application. Only one patent applicable to an approved product is eligible for the extension and the application for the extension must be submitted prior to the expiration of the patent. The U.S. Patent and Trademark Office, in consultation with the FDA, reviews and approves the application for any patent term extension or restoration. In the future, Catalyst may intend to apply for restoration of patent term for one of its currently owned or licensed patents to add patent life beyond its current expiration date, depending on the expected length of the clinical trials and other factors involved in the filing of the relevant BLA.

Other U.S. Healthcare Laws and Compliance Requirements

In the United States, Catalyst's activities are potentially subject to regulation by various federal, state and local authorities in addition to the FDA, including but not limited to, the Centers for Medicare and Medicaid Services, or CMS, other divisions of the U.S. Department of Health and Human Services (e.g., the Office of Inspector General), the U.S. Department of Justice, or DOJ, and individual U.S. Attorney offices within the DOJ, and state and local governments. For example, sales, marketing and scientific/educational grant programs must comply with the anti-fraud and abuse provisions of the Social Security Act, the false claims laws, the privacy provisions of the Health Insurance Portability and Accountability Act, or HIPAA, and similar state laws, each as amended.

The federal Anti-Kickback Statute prohibits, among other things, any person or entity, from knowingly and willfully offering, paying, soliciting or receiving any remuneration, directly or indirectly, overtly or covertly, in cash or in kind, to induce or in return for purchasing, leasing, ordering or arranging for the purchase, lease or order of any item or service reimbursable under Medicare, Medicaid or other federal healthcare programs. The term remuneration has been interpreted broadly to include anything of value. The Anti-Kickback Statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on one hand and prescribers, purchasers, and formulary managers on the other. There are a number of statutory exceptions and regulatory safe harbors protecting some common activities from prosecution. The exceptions and safe harbors are drawn narrowly and practices that involve remuneration that may be alleged to be intended to induce prescribing, purchasing or recommending may be subject to scrutiny if they do not qualify for an exception or safe harbor. Failure to meet all of the requirements of a particular applicable statutory exception or regulatory safe harbor does not make the conduct per se illegal under the Anti-Kickback Statute. Instead, the legality of the arrangement will be evaluated on a case-by-case basis based on a cumulative review of all of its facts and circumstances. Catalyst's practices may not in all cases meet all of the criteria for protection under a statutory exception or regulatory safe harbor.

Additionally, the intent standard under the Anti-Kickback Statute was amended by the Affordable Care Act to a stricter standard such that a person or entity no longer needs to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. In addition, the Affordable Care Act codified case law that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal False Claims Act (discussed below).

The civil monetary penalties statute imposes penalties against any person or entity who, among other things, is determined to have presented or caused to be presented a claim to a federal health program that the person knows or should know is for an item or service that was not provided as claimed or is false or fraudulent.

The federal False Claims Act prohibits, among other things, any person or entity from knowingly presenting, or causing to be presented, a false claim for payment to, or approval by, the federal government or knowingly making, using, or causing to be made or used a false record or statement material to a false or fraudulent claim to the federal government. As a result of a modification made by the Fraud Enforcement and Recovery Act of 2009, a claim includes “any request or demand” for money or property presented to the U.S. government. Recently, several pharmaceutical and other healthcare companies have been prosecuted under these laws for allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product. Other companies have been prosecuted for causing false claims to be submitted because of the companies’ marketing of the product for unapproved, and thus non-reimbursable, uses.

HIPAA created new federal criminal statutes that prohibit knowingly and willfully executing, or attempting to execute, a scheme to defraud or to obtain, by means of false or fraudulent pretenses, representations or promises, any money or property owned by, or under the control or custody of, any healthcare benefit program, including private third-party payors and knowingly and willfully falsifying, concealing or covering up by trick, scheme or device, a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services.

Also, many states have similar fraud and abuse statutes or regulations that apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor.

Catalyst may be subject to data privacy and security regulations by both the federal government and the states in which it conducts business. HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and its implementing regulations, imposes requirements relating to the privacy, security and transmission of individually identifiable health information. Among other things, HITECH makes HIPAA’s privacy and security standards directly applicable to business associates independent contractors or agents of covered entities that receive or obtain protected health information in connection with providing a service on behalf of a covered entity. HITECH also created four new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys’ fees and costs associated with pursuing federal civil actions. In addition, state laws govern the privacy and security of health information in specified circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

Additionally, the federal Physician Payments Sunshine Act within the Affordable Care Act, and its implementing regulations, require that certain manufacturers of drugs, devices, biological and medical supplies for which payment is available under Medicare, Medicaid or the Children’s Health Insurance Program (with certain exceptions) to report information related to certain payments or other transfers of value made or distributed to physicians and teaching hospitals, or to entities or individuals at the request of, or designated on behalf of, the physicians and teaching hospitals and to report annually certain ownership and investment interests held by physicians and their immediate family members.

In order to distribute products commercially, Catalyst must comply with state laws that require the registration of manufacturers and wholesale distributors of drug and biological products in a state, including, in certain states,

manufacturers and distributors who ship products into the state even if such manufacturers or distributors have no place of business within the state. Some states also impose requirements on manufacturers and distributors to establish the pedigree of product in the chain of distribution, including some states that require manufacturers and others to adopt new technology capable of tracking and tracing product as it moves through the distribution chain. Several states have enacted legislation requiring pharmaceutical and biotechnology companies to establish marketing compliance programs, file periodic reports with the state, make periodic public disclosures on sales, marketing, pricing, clinical trials and other activities, and/or register their sales representatives, as well as to prohibit pharmacies and other healthcare entities from providing certain physician prescribing data to pharmaceutical and biotechnology companies for use in sales and marketing, and to prohibit certain other sales and marketing practices. All of Catalyst's activities are potentially subject to federal and state consumer protection and unfair competition laws.

If Catalyst's operations are found to be in violation of any of the federal and state healthcare laws described above or any other governmental regulations that apply to us, it may be subject to penalties, including without limitation, civil, criminal and/or administrative penalties, damages, fines, disgorgement, exclusion from participation in government programs, such as Medicare and Medicaid, injunctions, private "qui tam" actions brought by individual whistleblowers in the name of the government, or refusal to allow us to enter into government contracts, contractual damages, reputational harm, administrative burdens, diminished profits and future earnings, and the curtailment or restructuring of Catalyst's operations, any of which could adversely affect its ability to operate its business and its results of operations.

Coverage, Pricing and Reimbursement

Significant uncertainty exists as to the coverage and reimbursement status of any product candidates for which Catalyst obtains regulatory approval. In the United States and markets in other countries, sales of any products for which Catalyst receives regulatory approval for commercial sale will depend, in part, on the extent to that third-party payors provide coverage, and establish adequate reimbursement levels for such products. In the United States, third-party payors include federal and state healthcare programs, private managed care providers, health insurers and other organizations. The process for determining whether a third-party payor will provide coverage for a product may be separate from the process for setting the price of a product or for establishing the reimbursement rate that such a payor will pay for the product. Third-party payors may limit coverage to specific products on an approved list, or also known as a formulary, which might not include all of the FDA-approved products for a particular indication. Third-party payors are increasingly challenging the price, examining the medical necessity and reviewing the cost-effectiveness of medical products, therapies and services, in addition to questioning their safety and efficacy. Catalyst or may need to conduct expensive pharmaco-economic studies in order to demonstrate the medical necessity and cost-effectiveness of its products, in addition to the costs required to obtain the FDA approvals. Catalyst's product candidates may not be considered medically necessary or cost-effective. A payor's decision to provide coverage for a product does not imply that an adequate reimbursement rate will be approved. Further, one payor's determination to provide coverage for a product does not assure that other payors will also provide coverage for the product. Adequate third-party reimbursement may not be available to enable us to maintain price levels sufficient to realize an appropriate return on Catalyst's investment in product development.

Different pricing and reimbursement schemes exist in other countries. In the EU, governments influence the price of pharmaceutical products through their pricing and reimbursement rules and control of national health care systems that fund a large part of the cost of those products to consumers. Some jurisdictions operate positive and negative list systems under which products may only be marketed once a reimbursement price has been agreed. To obtain reimbursement or pricing approval, some of these countries may require the completion of clinical trials that compare the cost-effectiveness of a particular product candidate to currently available therapies. Other member states allow companies to fix their own prices for medicines, but monitor and control company profits. The downward pressure on health care costs has become very intense. As a result, increasingly high barriers are being erected to the entry of new products. In addition, in some countries, cross-border imports from low-priced markets exert a commercial pressure on pricing within a country.

The marketability of any product candidates for which Catalyst receives regulatory approval for commercial sale may suffer if the government and third-party payors fail to provide adequate coverage and reimbursement. In addition, emphasis on managed care in the United States has increased and Catalyst expects will continue to increase the pressure on healthcare pricing. Coverage policies and third-party reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained for one or more products for which Catalyst receives regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

The Foreign Corrupt Practices Act

The Foreign Corrupt Practices Act, or FCPA, prohibits any U.S. individual or business from paying, offering, or authorizing payment or offering of anything of value, directly or indirectly, to any foreign official, political party or candidate for the purpose of influencing any act or decision of the foreign entity in order to assist the individual or business in obtaining or retaining business. The FCPA also obligates companies whose securities are listed in the United States to comply with accounting provisions requiring the company to maintain books and records that accurately and fairly reflect all transactions of the corporation, including international subsidiaries, and to devise and maintain an adequate system of internal accounting controls for international operations.

Additional Regulation

In addition to the foregoing, state and federal laws regarding environmental protection and hazardous substances, including the Occupational Safety and Health Act, the Resource Conservancy and Recovery Act and the Toxic Substances Control Act, affect Catalyst's business. These and other laws govern the use, handling and disposal of various biological, chemical and radioactive substances used in, and wastes generated by, Catalyst's operations. If Catalyst's operations result in contamination of the environment or expose individuals to hazardous substances, Catalyst could be liable for damages and governmental fines. Catalyst believes that it are in material compliance with applicable environmental laws and that continued compliance therewith will not have a material adverse effect on its business. Catalyst cannot predict, however, how changes in these laws may affect its future operations.

Government Regulation Outside of the United States

In addition to regulations in the United States, Catalyst will be subject to a variety of regulations in other jurisdictions governing, among other things, clinical trials and any commercial sales and distribution of its products. Whether or not Catalyst obtains FDA approval of a product, it must obtain the requisite approvals from regulatory authorities in foreign countries prior to the commencement of clinical trials or marketing of the product in those countries. Certain countries outside of the United States have a similar process that requires the submission of a clinical trial application much like the IND prior to the commencement of human clinical trials. In the EU, for example, a clinical trial application must be submitted to each country's national health authority and an independent ethics committee, much like the FDA and IRB, respectively. Once the clinical trial application is approved in accordance with a country's requirements, clinical trial development may proceed. Because biologically sourced raw materials are subject to unique contamination risks, their use may be restricted in some countries.

The requirements and process governing the conduct of clinical trials, product licensing, pricing and reimbursement vary from country to country. In all cases, the clinical trials are conducted in accordance with GCP and the applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki.

To obtain regulatory approval of an investigational drug or biological product under EU regulatory systems, Catalyst must submit a marketing authorization application. The application used to file the BLA in the United States is similar to that required in the EU, with the exception of, among other things, country-specific document requirements.

For other countries outside of the EU, such as countries in Eastern Europe, Latin America or Asia, the requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary from country to country. In all cases, again, the clinical trials are conducted in accordance with GCP and the applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki.

If Catalyst or its potential collaborators fail to comply with applicable foreign regulatory requirements, Catalyst may be subject to, among other things, fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

Facilities

Catalyst's corporate headquarters are located in South San Francisco, California. Catalyst's current subleased portion of a facility encompasses approximately 12,965 square feet of space. The sublease for this space expires on August 31, 2015, subject to Catalyst's option to extend the term to include the period from September 1, 2015 through February 27, 2018 by giving written notice to the sublandlord at any time on or before June 30, 2015.

Employees

As of May 15, 2015, Catalyst had 13 full-time employees, 8 of whom have Ph.D. or M.D. degrees. Of these full-time employees, 9 employees are engaged in research and development activities and 4 employees are engaged in finance, legal, human resources, facilities and general management. Catalyst has no collective bargaining agreements with its employees and it has not experienced any work stoppages. Catalyst considers its relations with its employees to be good.

Legal Proceedings

Catalyst is not currently subject to any material legal proceedings.

TARGACEPT MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis of Targacept's financial condition and results of operations together with its financial statements and the related notes included in this proxy statement/prospectus/information statement. In addition to historical information, the following discussion contains forward-looking statements that involve risks, uncertainties and assumptions. Targacept's actual results, performance or experience could differ materially from what is indicated by any forward-looking statement due to various important factors, risks and uncertainties, including, but not limited to, those set forth under "Forward-Looking Statements" beginning on page 53.

Overview

Background

Targacept is a biopharmaceutical company that historically has been engaged in the development of novel NNR Therapeutics™ to treat patients suffering from serious nervous system and gastrointestinal/ genitourinary diseases and disorders. Targacept's NNR Therapeutics selectively target a class of receptors known as neuronal nicotinic receptors, which it refers to as NNRs. NNRs are found on nerve cells throughout the nervous system and serve as key regulators of nervous system activity. However, due to the disappointing clinical trial outcomes in Targacept's development programs for TC-5214, TC-1734, TC-5619, and, most recently, TC-6499, it has shifted its strategic emphasis to external business opportunities not related to NNRs. On March 5, 2015, Targacept announced its entry into the Merger Agreement with Catalyst.

Based on years of focused research in the NNR area, and notwithstanding Targacept's clinical development setbacks, it continues to believe that compounds that interact selectively with specific NNR subtypes have the potential to achieve positive medical effects by modulating their activity. Targacept has built a patent estate covering the structure or therapeutic use of small molecules designed to regulate activity in the body by selectively affecting specific NNR subtypes. Targacept does not have current plans to continue developing any of its NNR programs internally. Instead Targacept is seeking to out-license or sell those assets to one or more third parties.

Targacept's NNR product candidates are TC-6499, TC-6683 (formerly AZD1446), TC-5619, TC-6987, TC-1734 and TC 5214, and they are discussed under the caption "Targacept Business" beginning on page 203.

Targacept was party to a collaboration agreement with AstraZeneca focused on compounds that act on the 4ß2 NNR, which AstraZeneca terminated in October 2014, effective January 2015. Under the agreement AstraZeneca was granted an exclusive license to TC-6683 and an earlier-stage compound that arose from the preclinical research collaboration conducted under the agreement from January 2006 to January 2010. The rights to TC-6683 and the other compound reverted to Targacept upon effectiveness of termination of the collaboration agreement.

Since Targacept's inception, it has had limited revenue from product sales and has funded its operations principally through public and private offerings of equity securities, payments under collaboration and alliance agreements, grants and equipment financing. Targacept has historically devoted substantially all of its resources to the discovery and development of its product candidates and technologies, including the design, conduct and management of nonclinical and clinical studies and related manufacturing, regulatory and clinical affairs, as well as intellectual property prosecution.

In the second quarter of 2012, Targacept completed a reduction in force as part of a plan to focus its resources on its more advanced programs. In October 2012, Targacept announced a second reduction in force, as well as its

plan to close its laboratory operations. Targacept completed the second reduction in force and the laboratory closings in December 2012 and is no longer devoting resources to drug discovery or nonclinical research activities. Targacept sold virtually all of its laboratory equipment after it closed its laboratories. Targacept completed a further reduction in force in the fourth quarter of 2014, decreasing its workforce by 26% to 20 employees. During 2015, Targacept continued reducing its workforce, and had 13 employees remaining as of May 15, 2015. These reductions were made in order to align Targacept's resources with its short-term operating needs.

Except for a small number of periods in which Targacept generated net income due primarily to the recognition into revenue of amounts received under collaboration agreements, it has not been profitable. As of March 31, 2015, Targacept had an accumulated deficit of $320.0 million. Targacept expects that it will incur losses in future periods as it incurs merger related expenses and ongoing product development related expenses. Drug development, including clinical trials in particular, is time-consuming, expensive and may never yield a product that will generate revenue.

As a clinical-stage company, Targacept's revenues, expenses and results of operations are likely to fluctuate significantly from quarter to quarter and year to year. Targacept believes that period-to-period comparisons of its results of operations should not be relied upon as indicative of its future performance.

Revenue

In January 2010, Targacept received the $200.0 million upfront payment under its MDD agreement with AstraZeneca, which it recorded as deferred revenue and began recognizing into revenue on a straight-line basis over the estimated period of its substantive performance obligations under the agreement.

In the first quarter of 2012, Targacept and AstraZeneca announced that, based on the totality of the results of the Phase 3 program, a regulatory submission` for TC-5214 as an adjunct therapy for MDD would not be pursued and the "switch" monotherapy trial was discontinued. These events resulted in a change in the estimated period of Targacept's substantive performance obligations under its MDD agreement with AstraZeneca. Accordingly, Targacept revised the revenue recognition period for the upfront payment and began recognizing the portion of the upfront payment not yet recognized into revenue on a straight-line basis over the remainder of the revised period. Targacept had recognized the full amount of the upfront payment into revenue as of June 30, 2012.

Pursuant to a September 2010 amendment to Targacept's collaboration agreement with AstraZeneca related to a clinical trial of TC-1734 in mild to moderate Alzheimer's disease, Targacept received a $500,000 payment in the fourth quarter of 2010 and cumulative payments of $5.5 million in the second half of 2011. Targacept recorded all of these payments as deferred revenue and began recognizing them into revenue on a straight-line basis over the estimated period of Targacept's obligations with respect to the study. As a result of AstraZeneca's exercise of its right to terminate TC-1734 from the collaboration in March 2013, it recognized the remaining unrecognized deferred amount of $3.5 million into revenue during the first quarter of 2013.

As of March 31, 2015, Targacept had received $61.6 million in aggregate upfront fees and milestone payments under its collaboration agreement with AstraZeneca and recognized an additional $26.5 million in collaboration research and development revenue for research services that Targacept provided in the preclinical research collaboration conducted under that agreement. Targacept immediately recognized an aggregate of $32.6 million of the amounts received under the agreement for achievement of milestone events, because each event met the conditions required for immediate recognition under its revenue recognition policy. Targacept deferred recognition of an aggregate of $29.0 million received under the agreement and has fully recognized these deferred amounts into revenue over the respective periods discussed in Note 12 to its audited financial statements for the year ended December 31, 2014 included in this proxy statement/prospectus/information statement.

From time to time Targacept seeks and is awarded grants or performs work under grants awarded to third-party collaborators from which it derives revenue. During the third quarter of 2011, Targacept was awarded a third grant from the Michael J. Fox Foundation for Parkinson's Research, or MJFF. Based on the terms of the grant,

Targacept received $250,000 upon inception of the grant term and an additional $250,000 in March 2012. In addition, Targacept is a subcontractor under a grant awarded to The California Institute of Technology by the National Institute on Drug Abuse, or NIDA, part of the National Institutes of Health, to fund research on innovative NNR-based approaches to the development of therapies for smoking cessation. Based on the terms of this arrangement, Targacept received $191,000 in May 2012, $93,000 in October 2013 and $148,000 in March 2014. Funding for awards under federal grant programs is subject to the availability of funds as determined annually in the federal appropriations process.

In September 2014, Targacept entered into a services agreement with a biopharmaceutical company, under which it provided certain clinical development and regulatory consulting services. Under the agreement, Targacept recognized revenue of approximately $187,000 for its services over the term of the agreement, which expired by its terms on February 28, 2015. Targacept does not expect ongoing revenue from this agreement or other similar agreements.

Research and Development Expenses

Since Targacept's inception, it has focused its activities on drug discovery and development programs. Targacept's research and development expenses consist principally of charges for third-party services associated with its clinical-stage programs and preclinical research, salaries and other related costs for personnel in research and development functions and depreciation and other facility costs related to research and development functions. Targacept records research and development expenses as they are incurred. Research and development expenses represented approximately 65%, 76% and 74% of its total operating expenses for the years ended December 31, 2014, 2013, and 2012, respectively, and 34% and 77% of its total operating expenses for the three months ended March 31, 2015 and March 31, 2014, respectively.

Targacept has historically utilized its research and development personnel and infrastructure resources across several programs, and many of its costs have not been specifically attributable to a single program. Accordingly, Targacept cannot state precisely its total costs incurred on a program-by-program basis.

Targacept has not received FDA or foreign regulatory marketing approval for any of its product candidates. Targacept's current and future expenditures on development programs are subject to numerous uncertainties in timing and cost to completion.

Because Targacept is seeking to out-license or sell its NNR programs to one or more third parties, it cannot forecast with any degree of certainty whether any of its product candidates will be subject to future development or the timelines or capital requirements related to any such arrangement. Because of this uncertainty, and because of the numerous uncertainties related to clinical trials and drug development generally, Targacept is unable to determine whether or when it would be able to monetize any of its assets, or for what amount, if any.

General and Administrative Expenses

General and administrative expenses consist principally of salaries and other related costs for personnel in executive, finance, business development, legal, information technology and human resource functions. Other general and administrative expenses include expenses associated with stock options granted to personnel in those functions, depreciation and other facility costs not otherwise included in research and development expenses, patent-related costs, insurance costs and professional fees for consulting, legal, accounting and public and investor relations services.

Income Taxes

Targacept has incurred cumulative net operating losses through March 31, 2015 and has not paid federal, state or foreign income taxes for any period since its inception. An IRS examination of Targacept's 2010 federal income tax return was completed in 2014 and resulted in an adjustment that increased taxable income for 2010 by $15.1

million, decreased taxable income for 2011 by $1.1 million and decreased taxable income for 2012 by $14.0 million. The cumulative adjustment had no effect on the amount of Targacept's federal net operating loss carryforwards. The application of U.S. generally accepted accounting principles, or GAAP, may for some periods result in non-cash income tax expense or benefit being reflected in Targacept's Statement of Comprehensive Income (Loss), as an example, exercises of stock options in periods of net income may result in tax deductions for stock-based compensation in excess of expense recorded for the stock options under GAAP, which are referred to as excess tax deductions. For years for which Targacept reports net income before taxes, it recognizes the income tax benefit related to the excess tax deductions as an increase to capital in excess of par value and, based on Accounting Standards Codification ASC Topic 740, *Income Taxes*, record an offsetting charge in the same amount to income tax expense.

The IRS examination adjustment to Targacept's 2010 federal income tax return resulted in the realization of an additional $3.4 million of excess tax deductions and an offsetting charge to income tax expense three months ended March 31, 2015. For the year ended December 31, 2012, Targacept recognized $101,000 of income tax benefit as a result of the application of accounting guidance for intra-period tax allocation, under which it is required to consider all items (including items recorded in other comprehensive income) in determining the amount of tax benefit that should be allocated to net loss. The non-cash income tax benefit for 2012 was offset in full by income tax expense recorded in other comprehensive income.

As of March 31, 2015, Targacept had $3.9 million remaining of cumulative tax deductions for periods of net loss from exercises of stock options in excess of expense recorded for the stock options under GAAP. The benefit of these excess tax deductions had not begun to be realized as of December 31, 2014 because Targacept has incurred cumulative net operating losses since inception. This benefit will not be recognized as an increase to capital in excess of par value until the excess deductions reduce income taxes payable.

As of March 31, 2015, Targacept had net operating loss carryforwards of $264.9 million for federal income tax purposes and $250.8 million for state income tax purposes, and it had research and development income tax credit carryforwards of $13.5 million for federal income tax purposes and $587,000 for state income tax purposes. The federal net operating loss carryforwards begin to expire in 2024. The state net operating loss carryforwards begin to expire in 2019. The federal and state research and development tax credits begin to expire in 2021. As a result of various factors, including the subjectivity of measurements used in the calculation of particular tax positions taken or that may in the future be taken in Targacept's tax returns, it is uncertain whether or to what extent it will be eligible to use the tax credits.

Utilization of the net operating loss carryforwards and credits will be subject to a substantial annual limitation due to ownership change limitations provided by Section 382 of the Internal Revenue Code of 1986, as amended, and similar state provisions. When an ownership change, as defined by Section 382, occurs, an annual limitation is imposed on a company's use of net operating loss and credit carryforwards attributable to periods before the change. A series of stock issuances by Targacept gave rise to such an ownership change in December 2004. As a result, an annual limitation is imposed on its use of net operating loss and credit carryforwards that are attributable to periods before the change. In addition, a portion of the net operating loss carryforwards described above may potentially not be usable by Targacept if it experiences further ownership changes in the future.

For financial reporting purposes, Targacept has recorded a valuation allowance in all jurisdictions to fully offset the deferred tax assets related to the carryforwards and tax credits discussed above until it is more likely than not that it will realize any benefit from them.

Fair Value

The carrying amounts of Targacept's cash and cash equivalents, investments in marketable securities, accounts receivable, accounts payable and accrued expenses are considered to be representative of their respective fair values due to their short-term natures and, in the case of short-term investments, their market interest rates. Likewise, the carrying amounts of Targacept's long-term debts are considered to be representative of their fair

value due to their market interest rates. Cash that Targacept does not expect to use to fund its short-term liquidity requirements is invested in corporate debt securities and municipal bonds rated at least A quality or equivalent, U.S. Treasury notes and bonds, U.S. and state government agency-backed certificates and certificates of deposit. Targacept's investments in marketable securities, which include marketable securities classified on its balance sheet as cash equivalents, are recorded at quoted market prices or observable market inputs and totaled $54.4 million at December 31, 2014.

Critical Accounting Policies and Estimates

Targacept's management's discussion and analysis of financial condition and results of operations is based on its audited and unaudited financial statements, which have been prepared in accordance with GAAP. The preparation of these financial statements requires Targacept to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses. On an ongoing basis, Targacept evaluates these estimates and judgments. Targacept bases its estimates on historical experience and on various assumptions that it believes to be reasonable under the circumstances. These estimates and assumptions form the basis for making judgments about the carrying values of assets and liabilities and the recording of revenues and expenses that are not readily apparent from other sources. Actual results and experiences may differ materially from these estimates. In addition, Targacept's reported financial condition and results of operations could vary if new accounting standards are enacted that are applicable to its business.

Targacept's significant accounting policies are described in Note 2 to Targacept's audited financial statements for the year ended December 31, 2014, and in the notes to its unaudited financial statements included in this proxy statement/prospectus/information statement. Targacept believes that its accounting policies relating to revenue recognition, accrued expenses and stock-based compensation are the most critical to understanding and evaluating its reported financial results. Targacept has identified these policies as critical because they both are important to the presentation of its financial condition and results of operations and require it to make judgments and estimates on matters that are inherently uncertain and may change in future periods. For more information regarding these policies, you should refer to Note 2 to Targacept's audited financial statements included in this proxy statement/prospectus/information statement.

Revenue Recognition

Targacept has historically derived a substantial portion of its revenues from its strategic alliances and collaborations and may continue, over at least the next several years, to derive a substantial portion of its revenues from additional strategic alliances or collaborations if it is able to enter into additional strategic alliances or collaborations.

Collaboration and alliance agreements may contain multiple elements, including: an upfront fee, which may include an initial payment upon commencement of the contractual relationship, payment representing a common stock purchase premium or payment to secure a right for a future license; research fees for ongoing research and development; payments associated with the achievement of discovery, development, regulatory and commercial milestone events; and royalties based on specified percentages of any net product sales, among other elements. In determining the accounting for collaboration and alliance agreements, Targacept first determines whether the agreement involves a single unit of accounting or separate units of accounting for revenue recognition purposes by evaluating each deliverable under the terms of the agreement. If a deliverable has value on a standalone basis, Targacept treats the deliverable as a separate unit of accounting. Targacept determines how to allocate amounts received under the agreement among the separate units, based on the respective selling price of each unit, and Targacept determines the revenue recognition applicable to each unit. If an agreement does not have multiple deliverables that have standalone value, Targacept considers the agreement to have one unit of accounting and it determines the revenue recognition applicable to the entire agreement.

Targacept defers recognition of non-refundable upfront fees and recognizes them into revenue on a straight-line basis over the estimated period of Targacept's substantive performance obligations. If Targacept does not have substantive performance obligations, it recognizes non-refundable upfront fees into revenue through the date the

deliverable is satisfied. The period over which Targacept recognizes the revenue may be adjusted from time to time to take into account any delays or acceleration in the development of the applicable product candidate or any extension or shortening of the applicable performance period. Any such delay or acceleration in the development of a product candidate, or extension or shortening of a performance period, would result in decreases or increases to the recognition of deferred revenue from period to period. As of December 31, 2014, all amounts that Targacept has recorded as deferred revenue are non-refundable.

Targacept recognizes collaboration research and development revenue from research services performed under collaboration agreements as research is performed and related expenses are incurred.

Targacept recognizes revenue for non-refundable payments that are based on the achievement of discovery, development, regulatory and commercial milestone events upon achievement of the milestone event if all of the following conditions are met:

- there is substantive uncertainty regarding achievement of the milestone event at inception of the arrangement;
- the payment is commensurate with either Targacept's performance to achieve the milestone or with the enhancement of the value of the delivered item;
- the payment relates solely to past performance; and
- the payment is reasonable relative to all of the deliverables and payment terms within the arrangement.

If any of these conditions are not met, Targacept defers recognition of the payment and recognizes the payment on a straight-line basis as discussed above.

To the extent Targacept is reimbursed under a collaboration or alliance agreement for specific research and development costs, such as third-party manufacturing costs for drug material, it reflects these reimbursable amounts as a component of collaboration research and development revenue and the costs associated with these reimbursable amounts as a component of research and development expenses.

Accrued Expenses

In the normal course of Targacept's business, Targacept contracts with research institutions and contract research organizations that conduct or manage clinical trials or other research and development activities on its behalf and with contract manufacturers that produce drug substance or clinical trial materials for Targacept. The financial terms of these agreements are subject to negotiation, vary among agreements and may result in uneven payment flows. Payments under these agreements depend on the performance of services or the achievement of specified events, such as the production of drug substance or clinical trial materials, the recruitment of clinical trial subjects, the completion of portions of a non-clinical study or clinical trial or similar conditions.

As part of the process of preparing financial statements, Targacept is required to estimate accrued expenses with the objective of matching the recording of expenses in its financial statements to the actual services received and efforts expended. This process involves reviewing open contracts and purchase orders, communicating with Targacept's applicable personnel to identify services that have been performed on its behalf, estimating level of services performed and the associated cost incurred for the services when it has not yet been invoiced or otherwise notified of actual cost and reviewing invoices received that have not yet become due and payable. Targacept makes estimates of its accrued expenses as of each balance sheet date in its financial statements based on facts and circumstances known to Targacept. Targacept periodically confirms the accuracy of its estimates with the service providers and makes adjustments if necessary. If Targacept does not identify costs that Targacept has begun to incur or if it underestimates or overestimates the level of services performed or the costs of these services, its actual expenses could differ from its estimates. Examples of estimated accrued expenses include:

- fees for services performed by contract research organizations in connection with clinical trials and non-clinical studies;

- fees for services performed by clinical trial sites in connection with clinical trials;
- fees for services performed by contract manufacturers in connection with the production of clinical trial materials; and
- professional service fees.

Stock-Based Compensation

Targacept records the grant date fair value of stock options and unvested stock awards issued to employees and non-employee directors as stock-based compensation expense over the requisite service periods, which are typically the vesting periods. Targacept currently uses the Black-Scholes-Merton formula to estimate grant date fair value of stock options and expects to continue to use this valuation model in the future. The Black-Scholes-Merton formula requires Targacept to make various assumptions, including among others the expected term of the award and expected volatility of its common stock. In the event a modification is made to a stock option after the grant date, Targacept records additional stock-based compensation expense equal to the incremental fair value of the stock option immediately subsequent to the modification as compared to the fair value of the stock option immediately preceding the modification. During 2012, Targacept modified some outstanding stock options held by executive and non-executive employees who departed Targacept to partially accelerate vesting and/or extend the permitted period for exercise. These modifications resulted in incremental compensation cost for the year ended December 31, 2012 of $1.4 million. The fair value of unvested stock awards is determined by the closing price of Targacept's common stock on the grant date. Targacept recorded stock-based compensation expense related to stock-based awards to employees and directors of $3.5 million for the year ended December 31, 2014, $5.2 million for the year ended December 31, 2013, and $7.8 million for the year ended December 31, 2012 (inclusive of expense resulting from stock option modifications). As of December 31, 2014, Targacept had $4.8 million in total unrecognized compensation cost related to non-vested stock-based compensation arrangements, which it expects to record over a weighted average period of 2.42 years.

Results of Operations

Three Months ended March 31, 2015 and 2014

Net Operating Revenues

	Three Months Ended March 31,		
	2015	2014	Change
		(in thousands)	
Operating revenues:			
License fees and milestones from collaborations	$—	$ —	$ —
Grant and other revenue	60	87	(27)
Net operating revenues	$ 60	$ 87	$ (27)

Net operating revenues for the three months ended March 31, 2015, decreased by $27,000 as compared to the three months ended March 31, 2014, as a result of a decrease in grant and other revenue. The grant and other revenue for the three months ended March 31, 2014, reflects funds Targacept was awarded as a subcontractor under a grant to the California Institute of Technology. The grant and other revenue for the three months ended March 31, 2015, reflects revenue earned under a services agreement with a biopharmaceutical company.

Research and Development Expenses

	Three Months Ended March 31,		
	2015	2014	Change
		(in thousands)	
Research and development expenses	$2,340	$ 9,080	$(6,740)

Research and development expenses for the three months ended March 31, 2015, decreased by $6.7 million as compared to the three months ended March 31, 2014. The lower research and development expenses were principally attributable to a decrease of $5.4 million in costs incurred for third-party services associated with Targacept's clinical-stage programs to $1.3 million for the 2015 period, from $6.7 million for the 2014 period. This decrease was principally due to lower costs related to Targacept's Phase 2b study of TC-5214 in overactive bladder and the Phase 2b study of TC-1734 in Alzheimer's disease, both of which Targacept completed in the third quarter of 2014. The lower research and development expenses were also attributable to a decrease of $1.1 million in research and development-related operating costs, including infrastructure and compensation-related expenses for research and development personnel, to $1.1 million for the 2015 period, from $2.2 million for the 2014 period.

The costs that Targacept incurred for the three months ended March 31, 2015, and March 31, 2014, for third-party services in connection with research and development of clinical-stage product candidates are shown in the table below.

	Three Months Ended March 31,		
	2015	2014	Change
		(in thousands)	
TC-6499	$1,253	$ 589	$ 664
TC-1734	5	958	(953)
TC-5619	1	359	(358)
TC-5214 overactive bladder	—	4,768	(4,768)
TC-6683	—	—	—

Targacept completed the exploratory clinical trial of TC-6499 in diabetic gastroparesis in April 2015, and it currently has no future clinical studies planned. As a result, Targacept expects that its program related research and development expenses for the remainder of 2015 will be substantially lower than expenses for the first quarter of 2015 and the comparable 2014 periods.

General and Administrative Expenses

	Three Months Ended March 31,		
	2015	2014	Change
		(in thousands)	
General and administrative expenses	$3,387	$ 2,763	$ 624

General and administrative expenses for the three months ended March 31, 2015, increased by $624,000 as compared to the three months ended March 31, 2014. The higher costs for the 2015 period are primarily due to legal, finance, business development and consulting expenses totaling $1.2 million related to the merger. These expenses are partially offset by a decrease of $335,000 in compensation related expenses for general and administrative personnel resulting principally from fewer general and administrative employees and a lower value assigned to Targacept's stock-based compensation awards that vested during the period.

Income Taxes

	Three Months Ended March 31,		
	2015	2014	Change
		(in thousands)	
Income taxes	$ 21	$ 3,412	$(3,391)

Income tax expense for the three months ended March 31, 2015, decreased by $3.4 million as compared to the three months ended March 31, 2014. The lower income tax expense was primarily attributable to examination adjustment to Targacept's 2010 federal income tax return that resulted in the realization of an additional $3.4 million of excess tax deductions and an offsetting charge to income tax expense for the three months ended March 31, 2014.

Reduction in Force

	Three Months Ended March 31,		
	2015	2014	Change
	(in thousands)		
Reduction in force	$1,156	$ —	$1,156

As a result of the reduction in force Targacept completed during the three months ended March 31, 2015, as discussed above, Targacept recorded as expense $1.2 million of severance charges, including $420,000 of non-cash stock based compensation.

Years ended December 31, 2014 and December 31, 2013

Net Operating Revenues

	Year Ended December 31,		
	2014	2013	Change
	(in thousands)		
Operating revenues:			
License fees and milestones from collaborations	$ —	$ 3,536	$(3,536)
Grant and other revenue	275	93	182
Net operating revenues	$ 275	$ 3,629	$(3,354)

Net operating revenues for the year ended December 31, 2014 decreased by $3.4 million as compared to the year ended December 31, 2013 primarily as a result of a decrease in license fees and milestones from collaborations. License fees and milestones from collaborations for the 2013 period reflected recognition of the remaining $3.5 million balance of deferred revenue from payments previously received under Targacept's collaboration agreement with AstraZeneca, triggered by AstraZeneca's decision to terminate TC-1734 from the collaboration.

Targacept has recognized into revenue all amounts that had been previously deferred and, therefore, in future periods, will not recognize any additional revenue related to payments received under Targacept's previous collaboration agreements.

Research and Development Expenses

	Year Ended December 31,		
	2014	2013	Change
	(in thousands)		
Research and development expenses	$19,499	$38,840	$(19,341)

Research and development expenses for the year ended December 31, 2014 decreased by $19.3 million as compared to the year ended December 31, 2013. The lower research and development expenses for 2014 were principally attributable to decreases of $16.6 million in costs incurred for third-party services associated with Targacept's clinical-stage programs to $11.5 million from $28.1 million for the 2013 period. This decrease was principally due to lower costs related to Targacept's Phase 2b study of TC-5619 in schizophrenia, which it completed in the fourth quarter of 2013, and lower costs related to the Phase 2b studies of TC-5214 in overactive bladder and TC-1734 in Alzheimer's disease, both of which it completed in the third quarter of 2014, and which

were partially offset by costs related to its ongoing exploratory study of TC-6499 in diabetic gastroparesis, which it initiated in the second quarter of 2014. The lower research and development expenses were also attributable to a decrease of $3.0 million in research and development-related operating costs, including infrastructure and compensation-related expenses for research and development personnel, to $7.7 million for the 2014 period, from $10.7 million for the 2013 period.

The costs that Targacept incurred for the years ended December 31, 2014 and December 31, 2013, for third-party services in connection with research and development of clinical-stage product candidates are shown in the table below:

	Year Ended December 31,		
	2014	2013	Change
		(in thousands)	
TC-5214 overactive bladder	$ 7,786	$14,235	(6,449)
TC-6499	2,109	470	1,639
TC-1734	1,886	3,099	(1,213)
TC-5619	—	10,250	(10,250)
TC-6987	—	21	(21)
TC-6683	—	—	—

Based on Targacept's current clinical program related commitments and considering the completion of the merger, Targacept expects its research and development expenses for the year ending December 31, 2015 to decrease as compared to 2014, principally as a result of its completion in 2014 of a Phase 2b clinical trial of TC-5214 as a treatment for overactive bladder and of a Phase 2b clinical trial of TC-1734 as a treatment for Alzheimer's disease.

General and Administrative Expenses

	Year Ended December 31,		
	2014	2013	Change
		(in thousands)	
General and administrative expenses	$10,172	$12,005	$(1,833)

General and administrative expenses for the year ended December 31, 2014 decreased by $1.8 million as compared to the year ended December 31, 2013. The lower general and administrative expenses were partly attributable to a decrease of $943,000 in compensation related expenses for general and administrative personnel due principally to fewer general and administrative employees and a lower value assigned to Targacept's stock-based compensation awards that vested during the period. The lower general and administrative expenses were also attributable to the non-recurrence of $467,000 in non-cash stock-based compensation charges resulting from the partial accelerated vesting of, and extended exercise periods for, certain outstanding stock options held by a former executive officer who departed Targacept in March 2013, and $309,000 in severance and other charges resulting from the departure of the former executive officer.

Reductions in Force

	Year Ended December 31,		
	2014	2013	Change
		(in thousands)	
Reduction in force	$ 318	$ —	$ 318

As a result of the reduction in force Targacept completed during 2014, as discussed above, Targacept recorded as expense and paid $318,000 in severance and other charges in 2014.

Years ended December 31, 2013 and December 31, 2012

Net Operating Revenues

	Year Ended December 31,		
	2013	2012	Change
		(in thousands)	
Operating revenues:			
License fees and milestones from collaborations	$ 3,536	$57,420	$(53,884)
Grant and other revenue	93	440	(347)
Net operating revenues	$ 3,629	$57,860	$(54,231)

Net operating revenues for the year ended December 31, 2013 decreased by $54.2 million as compared to the year ended December 31, 2012. The lower net operating revenues for 2013 were primarily attributable to a decrease of $53.9 million in license fees and milestones from collaborations. The lower license fees and milestones from collaborations principally resulted from the recognition of deferred revenue during 2012 of the remaining unrecognized portion of the upfront payment received under Targacept's MDD agreement with AstraZeneca, totaling $54.5 million, partially offset by $589,000 in increased recognition into revenue for 2013 of payments related to TC-1734 received under its ongoing collaboration agreement with AstraZeneca. Targacept recognized into revenue during 2013 the remaining unrecognized portion of the payment related to TC-1734 received under its ongoing collaboration agreement with AstraZeneca, totaling $3.5 million.

Research and Development Expenses

	Year Ended December 31,		
	2013	2012	Change
		(in thousands)	
Research and development expenses	$38,840	$49,087	$(10,247)

Research and development expenses for the year ended December 31, 2013 decreased by $10.2 million as compared to the year ended December 31, 2012. The lower research and development expenses for 2013 were principally attributable to decreases of:

- $14.9 million in other research and development-related operating costs, including infrastructure costs and stock-based compensation and other compensation-related expenses for research and development personnel, to $10.7 million for 2013, from $25.6 million for 2012; this decrease resulted primarily from the workforce reductions completed in the second and fourth quarters of 2012 discussed above;
- $2.2 million in costs incurred for the Phase 3 development program for TC-5214 as a treatment for MDD which completed in 2012; and
- $1.7 million in costs incurred for third-party research and development services in connection with nonclinical programs.

These decreases were partially offset by an increase of $8.6 million in costs incurred for third-party services associated with Targacept's clinical-stage product candidates (excluding costs for the completed program in MDD discussed above) to $28.1 million for 2013, from $19.5 million for 2012. This increase was principally due to costs related to the initiation and conduct of its Phase 2b study of TC-5214 in overactive bladder.

The costs that Targacept incurred for the years ended December 31, 2013 and 2012 for third-party services in connection with research and development of clinical-stage product candidates are shown in the table below:

	Year Ended December 31,		
	2013	2012	Change
	(in thousands)		
TC-5214 overactive bladder	$14,235	$ 1,440	12,795
TC-5619	10,250	12,662	(2,412)
AZD3480	3,099	3,762	(663)
TC-6499	470	—	470
TC-6987	21	1,655	(1,634)
TC-5214 major depressive disorder	—	2,175	(2,175)
AZD1446	—	—	—

General and Administrative Expenses

	Year Ended December 31,		
	2013	2012	Change
	(in thousands)		
General and administrative expenses	$12,005	$13,193	$(1,188)

General and administrative expenses for the year ended December 31, 2013 decreased by $1.2 million as compared to the year ended December 31, 2012. The lower general and administrative expenses were primarily attributable to a decrease of $825,000 in stock-based compensation expense, salary and other compensation-related expenses for general and administrative personnel, primarily due to $1.8 million in non-recurring severance and stock-based compensation expenses recorded for 2012; and partially offset by $573,000 in non-cash stock-based compensation charges resulting from the partial accelerated vesting of, and extended exercise periods for, some outstanding stock options held by two former executive officers who departed Targacept during 2013 and $306,000 in severance and other charges, resulting from the departure of one of the former executive officers.

Reductions in Force

	Year Ended December 31,		
	2013	2012	Change
	(in thousands)		
Reduction in force	$ —	$ 3,718	$(3,718)

As a result of the two reductions in force Targacept completed during 2012 discussed above, Targacept recorded as expense and paid $3.7 million in severance and other charges in 2012.

Liquidity and Capital Resources

Sources of Liquidity

Targacept has historically financed its operations and internal growth principally through public and private offerings of equity securities, payments received under collaboration and alliance agreements, grants and equipment financing.

Targacept's cash, cash equivalents and investments in marketable securities were $106.3 million as of March 31, 2015, and $110.8 million as of December 31, 2014. As of March 31, 2015, Targacept had $58.5 million of cash in bank depository accounts and institutional money market funds at Branch Banking and Trust Company, PNC Bank and Wells Fargo & Company. Substantially all of Targacept's remaining cash, cash equivalents and investments were invested as of March 31, 2015 in corporate debt securities and municipal bonds rated at least A quality or equivalent, U.S. Treasury notes and bonds, U.S. and state government agency-backed securities.

Stock Offerings

Beginning with Targacept's initial public offering in April 2006, it has derived aggregate net proceeds of $195.1 million from public offerings of its common stock. Targacept has also derived aggregate net proceeds of $121.8 million from private placements of convertible preferred stock, all of which occurred prior to its initial public offering.

In November 2013, Targacept filed a Form S-3 with the Securities and Exchange Commission which became effective December 11, 2013. Pursuant to this Form S-3, Targacept may sell shares of common stock having an aggregate offering price of up to $200.0 million. Under an At-the-Market Issuance Sales Agreement, or ATM, with MLV & Co., LLC, filed concurrently with the Form S-3, Targacept may offer and sell shares of common stock having an aggregate offering price of up to $40.0 million.

Strategic Alliances and Collaborations

As of December 31, 2014, Targacept had received $61.6 million in aggregate upfront fees and milestone payments under its now terminated 2005 collaboration agreement with AstraZeneca and an additional $26.5 million in collaboration research and development revenue for research services that it provided in the preclinical research collaboration conducted under the agreement. Since inception, Targacept has received cumulative payments of $2.6 million upon achievement of milestone events under the agreement related to the development of TC-6683 and other product candidates arising under the preclinical research collaboration conducted under the agreement.

In December 2009, Targacept entered into its MDD agreement with AstraZeneca. Targacept received a $200.0 million upfront payment from AstraZeneca in January 2010. Targacept's MDD agreement with AstraZeneca was terminated effective in May 2012 and is no longer a potential source of future funds.

Loan Financing

In July 2010, Targacept entered into a loan agreement with Branch Banking and Trust Company (the "Bank") that provided aggregate borrowing capacity of $4.0 million available to it at any time on or prior to June 30, 2011 to fund the purchase of equipment, furnishings, software and other fixed assets. In September 2010, Targacept borrowed $1.2 million under the loan facility at a fixed interest rate of 3.4% per annum. Targacept was obligated only to pay interest on the September 2010 borrowing through the remainder of 2010, and it was repayable in equal monthly installments of $28,000 that began January 1, 2011 and continued through the maturity date in November, 2014. In June 2011, Targacept borrowed $2.1 million under the loan facility at a fixed interest rate of 3.471% per annum. The June 2011 borrowing was repayable in equal monthly installments of $48,000 that began July 1, 2011. In December 2014, Targacept repaid in full the June 2011 borrowing. Pursuant to the loan agreement, Targacept granted a first priority security interest in favor of the Bank in the assets acquired with the proceeds of the loan facility. As of December 31, 2014, there is no outstanding principal balance under the loan facility and there is no additional borrowing capacity remaining available to Targacept.

In March 2008, Targacept entered into a loan agreement with the Bank that provided borrowing capacity of $5.3 million to fund the purchase of equipment, furnishings, software and other fixed assets and enabled the refinancing of a previous loan facility that it had with R.J. Reynolds Tobacco Holdings, Inc. Targacept borrowed $4.8 million upon entering into the loan agreement and borrowed the remaining $489,000 in September 2008. Pursuant to the loan agreement, Targacept granted a first priority security interest in favor of the Bank in the assets acquired with the proceeds of the loan facility. The March 2008 loan bore interest at a fixed rate of 5.231% per annum and was repayable in equal monthly installments of $112,000 beginning April 1, 2008 and continuing through the maturity date of March 1, 2012 when it was repaid in full. The September 2008 loan bore interest at a fixed rate of 6.131% per annum and was repayable in equal monthly installments of $11,000 beginning October 1, 2008 and continuing through the maturity date of September 1, 2012 when it was repaid in full. There is no additional borrowing capacity remaining available to Targacept under the loan agreement.

Cash Flows

	Three Months Ended March 31,		
	2015	2014	Change
	(in thousands)		
Net cash used in operating activities	$ (4,447)	$(14,846)	$ 10,399
Net cash provided by investing activities	21,037	1,935	19,102
Net cash provided by financing activities	93	3,467	(3,374)
Net increase (decrease) in cash and cash equivalents	$ 16,683	$ (9,444)	

	Year Ended December 31,		
	2014	2013	Change
	(in thousands)		
Net cash used in operating activities	$(34,483)	$(40,612)	$ 6,129
Net cash provided by investing activities	33,856	13,409	20,447
Net cash provided by (used in) financing activities	2,572	(552)	3,124
Net increase (decrease) in cash and cash equivalents	$ 1,945	$(27,755)	

	Year Ended December 31,		
	2013	2012	Change
	(in thousands)		
Net cash used in operating activities	$(40,612)	$(64,239)	$ 23,627
Net cash provided by investing activities	13,409	39,822	(26,413)
Net cash used in financing activities	(552)	(626)	74
Net decrease in cash and cash equivalents	$(27,755)	$(25,043)	

Net cash used in operating activities for the three months ended March 31, 2015, decreased by $10.4 million as compared to the three months ended March 31, 2014. For the three months ended March 31, 2015, net cash used in operating activities was principally attributable to $4.8 million in payments made for research and development and general and administrative charges, which includes $414,000 for amounts paid related to the merger, partially offset by $295,000 of amortization of premiums paid for available-for-sale securities, interest income from available-for-sale securities and other investment-related operating activities. For the three months ended March 31, 2014, net cash used in operating activities was principally attributable to $12.0 million in payments made for research and development and general and administrative charges and realization of $3.4 million of excess tax deductions for the three months ended March 31, 2014, recorded upon the completion, during 2014, of an examination of Targacept's 2010 federal income tax return. These cash outflows were partially offset by $424,000 of amortization of premiums paid for available-for-sale securities, interest income from available-for-sale securities and other investment-related operating activities.

Net cash used in operating activities for the year ended December 31, 2014 decreased by $6.1 million as compared to the year ended December 31, 2013. For the year ended December 31, 2014, net cash used in operating activities was principally attributable to $33.0 million in payments made for research and development and general and administrative charges, and realization of $3.4 million of excess tax deductions, which is reflected as an increase to Targacept's net loss for the year ended December 31, 2014, recorded upon the completion during 2014 of an examination of its 2010 federal income tax return. These cash outflows were partially offset by $1.6 million of amortization of premiums paid for available-for-sale securities, interest income from available-for-sale securities and other investment-related operating activities.

Net cash used in operating activities for the year ended December 31, 2013 decreased by $23.6 million as compared to the year ended December 31, 2012. For 2013, net cash used in operating activities was primarily attributable to aggregate payments of $42.5 million for research and development and general and administrative charges. These cash payments were partially offset by $1.7 million of interest-related adjustments to reconcile

net loss to cash used in operating activities. For 2012, net cash used in operating activities was primarily attributable to aggregate payments of $61.8 million for research and development and general and administrative charges, as well as $3.7 million in payments made as a result of two workforce reductions. These cash payments were partially offset by $2.1 million of interest income and related amounts. The decrease of $19.3 million in payments made for research and development and general and administrative charges for 2013 as compared to 2012 was principally the result of the wind-down of the development program in major depressive disorder during 2012, Targacept's plan to focus its resources on its more advanced programs, the closing of its laboratories and the completion of two workforce reductions during 2012.

Based on Targacept's current clinical program related commitments and considering the completion of the merger, it expects payments for operating activities for the year ending December 31, 2015 to decrease as compared to 2014, principally as a result of the completion in 2014 of the clinical trial of TC-5214 as a treatment for overactive bladder and of the clinical trial of TC-1734 as a treatment for Alzheimer's disease.

Net cash provided by investing activities for the three months ended March 31, 2015, increased by $19.1 million over the same period in 2014. Cash provided by or used in investing activities reflects the portion of cash that Targacept allocates to, and the timing of purchases and maturities of, its investments in marketable securities and equipment purchases or dispositions. Targacept's net sales of investments in marketable securities were $21.0 million and $1.9 million for the 2015 period and 2014 period, respectively.

Net cash provided by investing activities for the year ended December 31, 2014 increased by $20.4 million as compared to the year ended December 31, 2013. Net cash provided by investing activities for the year ended December 31, 2013 decreased by $26.4 million as compared to the year ended December 31, 2012. Cash provided by or used in investing activities primarily reflects the portion of Targacept's cash that it allocates to, and the timing of purchases and maturities of, its investments in marketable securities. A transfer of funds from an investment in marketable securities to cash generates cash provided by investing activities, while a transfer of funds from cash or a cash equivalent to investments in marketable securities generates cash used in investing activities. Targacept's net sales of investments in marketable securities for 2014 were $33.8 million as compared to $12.3 million for 2013 and $38.6 million for 2012. The net sales of investment in marketable securities for each period occurred as funds were transferred to cash for working capital.

Net cash provided by financing activities for the three months ended March 31, 2015, was $93,000. Net cash provided by financing activities for the three months ended March 31, 2014, was $3.5 million, a change of $3.4 million. The change reflects the realization of $3.4 million of stock-based compensation excess tax deductions for the three months ended March 31, 2015.

Net cash provided by financing activities for the year ended December 31, 2014 was $2.6 million and net cash used in investing activities for the year ended December 31, 2013 was $552,000, a change of $3.1 million. The change reflects the realization during 2014 of an additional $3.4 million of stock-based compensation excess tax deductions as a result of the IRS examination adjustment. Net cash used in financing activities for the year ended December 31, 2013 decreased by $74,000 as compared to the year ended December 31, 2012.

Funding Requirements

As of March 31, 2015, Targacept had an accumulated deficit of $320.0 million and its cash and investments in marketable securities totaled $106.3 million. Targacept currently expects its existing capital resources to be sufficient to fund its operations through the completion of the merger. Targacept does not plan to use its existing capital resources to fund the completion of the development of any of its product candidates. Targacept's future capital requirements as a stand-alone company, if the merger were not to be completed, are difficult to forecast and will depend on many factors, including:

- whether Targacept pursues other significant corporate transactions, and, if it does, the associated terms in each case, or whether Targacept establishes additional strategic alliances, collaborations and licensing or other comparable arrangements;

- the costs of preparing, filing and prosecuting patent applications and maintaining, enforcing and defending patents and other intellectual property rights; and
- the extent and nature of Targacept's general and administrative expenses and close-out costs related to its most recently completed clinical trials.

Targacept's operating plan may change as a result of many factors, including those described above, and it may need additional funds sooner than planned to meet operational needs and capital requirements. To the extent Targacept's capital resources are insufficient to meet future capital requirements or to the extent the conditions for raising capital are favorable, Targacept may seek to finance future cash needs through public or private equity or debt offerings or other financings (whether utilizing its currently effective registration statement on Form S-3, including its ATM, or otherwise). Targacept's access in the future to additional equity or debt financing, on acceptable terms or at all, is uncertain. Additionally, any future equity funding may significantly dilute the ownership of Targacept's stockholders.

To date, inflation has not had a material effect on Targacept's business.

Contractual Obligations

The following table summarizes Targacept's fixed contractual obligations as of December 31, 2014:

		Payments Due By Period			
	Total	Less Than 1 year	1-3 Years	3-5 Years	More Than 5 Years
		(in thousands)			
Contractual Obligation					
Operating lease obligations	$ 393	$ 356	$ 37	$—	$ —
Purchase obligations	$4,107	4,004	97	6	—
	$4,500	$ 4,360	$134	$ 6	$ —

The amounts of purchase obligations reflected in the above table include obligations to purchase drug substance or clinical trial materials, to compensate clinical investigators, clinical trial sites and contract research organizations contingent on the performance of services in connection with clinical trials and to compensate contract research organizations contingent on the performance of non-clinical research and development services. The amounts of purchase obligations also include contractual obligations for insurance and other general and administrative expenses. The amounts of long-term debt obligations for all periods reflected in the above table include principal and interest payments on loan facilities outstanding at December 31, 2014.

Off-Balance Sheet Arrangements

Targacept does not have any off-balance sheet arrangements.

Quantitative and Qualitative Disclosures About the Market Risk of Targacept

The primary objectives of Targacept's investment activities are to preserve its capital and meet its liquidity needs to fund operations. Targacept also seeks to generate competitive rates of return from its investments without assuming significant risk. To achieve Targacept's objectives, it maintains a portfolio of cash equivalents and investments in a variety of securities that are of high credit quality based on ratings from commonly relied upon rating agencies. As of March 31, 2015, we had cash, cash equivalents and investments in marketable securities of $106.3 million. Targacept's cash, cash equivalents and investments in marketable securities may be subject to interest rate risk and could fall in value if market interest rates increase. However, because Targacept's cash is invested in accounts with market interest rates and because its cash equivalents and investments in marketable securities are traded in active markets, it believes that its exposure to interest rate risk is not significant and estimate that an immediate and uniform 10% increase in market interest rates from levels as of March 31, 2015 would not have a material impact on the total fair value of its portfolio.

Targacept has not used derivative financial instruments for speculation or trading purposes.

CATALYST MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of financial condition and results of operations should be read together with Catalyst's financial statements and the related notes appearing elsewhere in this proxy statement/prospectus/information statement. In addition to historical information, the following discussion contains forward-looking statements that involve risks and uncertainties. Please see "Forward-Looking Statements" on page 53 for additional factors relating to such statements, and see "Risks Related to Catalyst" relating to Catalyst beginning on page 25 for a discussion of certain risk factors applicable to Catalyst's business, financial condition and results of operation. Operating results are not necessarily indicative of results that may occur in future periods.

Overview

Catalyst is a clinical-stage biopharmaceutical company focused on creating and developing novel products based on engineered human proteases. To date, Catalyst has focused its product development efforts on the treatment of hemophilia and surgical bleeding using long acting and potent variants of proteases that promote blood clotting, including coagulation Factors VIIa, IX and Xa, and in the prevention of delayed graft function, or DGF, in renal transplants and the treatment of dry age-related macular degeneration, or dry AMD, a condition that can cause visual impairment or blindness, using novel proteases that cleave complement factor C3.

Catalyst's most advanced program is an improved next-generation coagulation Factor VIIa variant, which has completed a Phase 1 clinical trial evaluating safety and tolerability as well as pharmacokinetics, pharmacodynamics and coagulation activity in severe hemophilia A and B patients. Based on Catalyst's research, annual worldwide sales in 2014 for FDA-approved Factor VIIa products were approximately $1.5 billion. In addition to Catalyst's lead Factor VIIa program, Catalyst has two other next-generation coagulation factors, a Factor IX variant, CB 2679d/ISU 304, that is in advanced preclinical development, and a Factor Xa variant. Based on Catalyst's research, annual worldwide sales in 2014 for FDA-approved Factor IX and Factor Xa-containing products were approximately $1.8 billion. Catalyst seeks to develop these three product candidates to form the basis of a hemostasis franchise.

On June 29, 2009, Catalyst entered into a research and license agreement with Wyeth Pharmaceuticals, Inc., subsequently acquired by Pfizer, whereby Catalyst and Pfizer collaborated on the development of novel human Factor VIIa products, and Catalyst granted Pfizer the exclusive rights to develop and commercialize the licensed products on a worldwide basis. As a result, Pfizer paid Catalyst an upfront nonrefundable signing fee of $21.0 million, which was initially recognized as revenue ratably over the term of Catalyst's continuing involvement in the research and development of products with Pfizer, which was determined to be five years (covering the initial two-year research term plus potential extensions permitted under the applicable agreement).

During the initial two-years of the collaboration period, Pfizer reimbursed Catalyst for certain of its costs incurred in the development of the licensed products, including FTE-based research payments. Following the conclusion of the initial collaboration, without extension by Pfizer, Catalyst had no further substantive performance obligations to Pfizer under the agreement, and Catalyst recognized the remaining $12.6 million of deferred revenue related to the up-front fee in June 2011. Subsequently, in August 2013, Catalyst entered into an amendment to the Pfizer agreement, in accordance with which Pfizer made two $1.5 million non-refundable annual license maintenance payments to Catalyst in August 2013 and August 2014 and Catalyst agreed to certain performance obligations to Pfizer for the period starting from the effective date of the amendment. Pfizer was also obligated to pay to Catalyst contingent milestone-based payments upon the occurrence of certain defined development, commercialization and sales-based milestones.

Collaboration and license revenue related to the Pfizer agreement during the years ended December 31, 2014 and 2013, and the three months ended March 31, 2015 and 2014 was $1.4 million, $0.3 million, $563,000 and $188,000, respectively, reflecting the amortization of the annual license maintenance payments received over Catalyst's estimated expected period of its performance obligations, which was estimated to conclude in August 2015. Catalyst had deferred revenue balance of $750,000 at March 31, 2015 related to the Pfizer collaboration.

On April 2, 2015, Pfizer notified Catalyst that it was exercising its right to terminate the research and license agreement effective June 1, 2015. Accordingly, Catalyst has revised the expected period of performance to end on June 1, 2015, and as a result, the $750,000 of deferred revenue as of March 31, 2015 will be recognized ratably through June 1, 2015 rather than through August 31, 2015.

In September 2013, Catalyst entered into a license and collaboration agreement with ISU Abxis pursuant to which Catalyst licensed its proprietary human Factor IX products to ISU Abxis for initial development in South Korea. Under the agreement, ISU Abxis is responsible for development and manufacturing of the licensed products through Phase 1 clinical trials. Until the completion of Phase 1 development, ISU Abxis also has a right of first refusal with respect to commercialization rights for the licensed products in South Korea. ISU Abxis paid Catalyst an up-front signing fee of $1.8 million and is obligated to pay to Catalyst contingent milestone-based payments on the occurrence of certain defined development events, none of which have been achieved as of March 31, 2015. Collaboration and license revenue related to the ISU Abxis agreement during the years ended December 31, 2014 and 2013, and the three months ended March 31, 2015 and 2014 was $0.4 million, $0.1 million, $109,000 and $109,000, respectively, which reflect the amortization of the up-front fee over Catalyst's estimated period of its the performance obligations, which is estimated to conclude in August 2017. Catalyst had a deferred revenue balance of $1.1 million as of March 31, 2015 related to the ISU Abxis collaboration.

Catalyst has no products approved for commercial sale and has not generated any revenue from product sales. From inception to March 31, 2015, Catalyst has raised net cash proceeds of approximately $172.3 million, primarily from private placements of convertible preferred stock, in addition to issuances of shares of common stock and warrants and payments received under collaboration agreements.

Catalyst has never been profitable and has incurred significant operating losses in each year since its inception. Catalyst's net losses were $6.6 million, $10.0 million and $2.9 million for the years ended December 31, 2014 and 2013 and for the three months ended March 31, 2015, respectively. As of March 31, 2015, Catalyst had an accumulated deficit of $119.1 million. Substantially all of Catalyst's operating losses resulted from expenses incurred in connection with its research and development programs and from general and administrative costs associated with its operations. Catalyst's operating costs have decreased since 2012 due to the termination of the research activities under the Pfizer agreement and other agreements, a restructuring of its operations that included a reduction in work force, and the focusing of Catalyst's research programs.

Catalyst expects to incur significant expenses and increasing operating losses for at least the next several years as it continues the preclinical and clinical development of, and seeks regulatory approval for, its drug candidates. In addition, if the merger is approved, Catalyst's expenses would further increase as a result of the hiring of additional financial and possibly other personnel, upgrading its financial information systems and incurring costs associated with becoming a public company. In addition, Catalyst's operating losses may fluctuate significantly from quarter to quarter and year to year due to timing of preclinical, clinical development programs and regulatory approval.

Catalyst will continue to require substantial additional capital to continue its preclinical and clinical development and potential commercialization activities. Accordingly, Catalyst will need to raise substantial additional capital to continue to fund its operations. The amount and timing of Catalyst's future funding requirements will depend on many factors, including the pace and results of its clinical development efforts. Failure to raise capital as and when needed, on favorable terms or at all, would have a negative impact on Catalyst's financial condition and its ability to develop its product candidates.

Recent Events

On March 5, 2015, Catalyst announced its entry into the Merger Agreement, as subsequently amended on May 6, 2015 and May 13, 2015, pursuant to which, among other things, subject to the satisfaction or waiver of the conditions set forth in the Merger Agreement, a wholly-owned subsidiary of Targacept will be merged with and into Catalyst, with Catalyst continuing as the surviving corporation and a wholly owned subsidiary of Targacept.

Immediately following the effective time of the merger, existing Catalyst equity holders are expected to own approximately 58% of the combined company, and existing Targacept equity holders are expected to own approximately 42% of the combined company. Pursuant to the Merger Agreement, before the closing of the merger, Targacept expects to distribute pro-rata to its stockholders a Pre-Closing Dividend, consisting of $37.0 million in aggregate principal amount of redeemable convertible notes and approximately $19.0 million in cash. At the option of the noteholders, the notes will be redeemable at any time within 30 months after the closing of the merger or convertible into shares of common stock of the combined company at a conversion rate of $9.19 per share, which represents 130% of the negotiated per-share value of Targacept's assets following the distribution of the Pre-Closing Dividend, as adjusted to reflect the planned 7-for-1 reverse stock split described elsewhere in this proxy statement/prospectus/information statement.

Financial Operations Overview

Contract Revenue

Catalyst's contract revenue was generated by recognizing revenue from the amortization of upfront licensee fees for research and development services under its collaboration agreements with Pfizer and ISU Abxis. Payments made under these agreements are recognized over the period of performance for each arrangement. Catalyst may also be entitled to additional milestone payments and other contingent payments upon the occurrence of specific events. Catalyst has not generated any revenue from commercial product sales to date.

For the years ended December 31, 2014 and 2013, and the three months ended March 31, 2015 and 2014, revenue from Pfizer and ISU Abxis represented the following percentages of Catalyst's total contract revenue.

	Year Ended December 31,		Three Months Ended March 31,	
	2014	2013	2015	2014
Pfizer (Wyeth)	76%	72%	84%	63%
ISU Abxis	24%	28%	16%	37%

Due to the nature of the milestone payments under these collaboration agreements and the nonlinearity of the earnings process associated with certain payments and milestones, Catalyst expects that its revenue will fluctuate in future periods, as a result of the uncertainty of timing related to achievement of milestones.

Research and Development Expenses

Research and development expenses represent costs incurred to conduct research, such as the discovery and development of Catalyst's product candidates. Catalyst recognizes all research and development costs as they are incurred.

Research and development expenses consist primarily of the following:

- employee-related expenses, which include salaries, benefits and stock-based compensation;
- laboratory and vendor expenses, including payments to consultants, related to the execution of preclinical, non-clinical, and clinical studies; and
- facilities and other allocated expenses, which include direct and allocated expenses for rent and maintenance of facilities, depreciation and amortization expense and other supplies.

The following table summarizes Catalyst's research and development expenses during the years ended December 31, 2014 and 2013 and the three months ended March 31, 2015 and 2014:

	Year Ended December 31,		Three Months Ended March 31,	
	2014	2013	2015	2014
	(in thousands)			
Personnel costs	$2,122	$2,675	$ 596	$ 550
Preclinical research	1,276	2,149	399	156
Facility and overhead	1,869	1,733	388	542
Total research and development expenses	$5,267	$6,557	$ 1,383	$ 1,248

The largest component of Catalyst's total operating expenses has historically been its investment in research and development activities, including the clinical development of Catalyst's product candidates. Catalyst is currently focusing substantially all of its resources and development efforts on the preclinical pipeline. Catalyst's internal resources, employees and infrastructure are not directly tied to individual product candidates or development programs. As such, Catalyst does not maintain information regarding these costs incurred for these early stage research and development programs on a project-specific basis.

Catalyst expects its research and development expenses will increase during the next few years as it seeks to continue the preclinical and clinical development of, and pursue regulatory approval of, its product candidates in the United States. Due to the termination of the research and license agreement with Pfizer, Catalyst expects to incur costs in connection with the Factor VIIa program. However, the incurrence of such costs are dependent on whether Catalyst will pursue the program on its own or enter into a new collaboration and license arrangement with another pharmaceutical or biotech company.

The process of conducting clinical trials necessary to obtain regulatory approval is costly and time consuming. Catalyst may never succeed in achieving marketing approval for its product candidates. The probability of success of each product candidate may be affected by numerous factors, including clinical data, competition, manufacturing capability and commercial viability. As a result, Catalyst is unable to determine the duration of and costs to complete its research and development projects or when and to what extent Catalyst will generate revenue from the commercialization and sale of any of its product candidates.

Successful development of current and future product candidates is highly uncertain. Completion dates and costs for Catalyst's research programs can vary significantly for each current and future product candidate and are difficult to predict. As a result, Catalyst cannot estimate with any degree of certainty the costs it will incur in connection with development of its product candidates. Catalyst anticipates it will make determinations as to which programs and product candidates to pursue and how much funding to direct to each program and product candidate on an ongoing basis in response to the scientific success of early research programs, results of ongoing and future clinical trials, its ability to enter into collaborative agreements with respect to programs or potential product candidates, as well as ongoing assessments as to each current or future product candidate's commercial potential.

General and Administrative Expenses

General and administrative expenses consist of personnel costs, allocated expenses and other expenses for outside professional services, including legal, human resources, audit and accounting services. Personnel costs consist of salaries, bonus, benefits and stock-based compensation. Catalyst expects to incur additional expenses as a result of becoming a public company following completion of the merger, including expenses related to compliance with the rules and regulations of the SEC and NASDAQ, additional insurance expenses, investor relations activities and other administrative expenses and professional services.

Other Income

Other income consists primarily of sublease income earned in connection with the sublease of a portion of Catalyst's leased facility. On August 22, 2013, Catalyst entered into a sub-lease agreement with another biotech company whereby the sublessee agreed to sublease a portion of Catalyst's leased facility in South San Francisco, California. Under the sub-lease agreement, the sublessee paid rent and a share of facility operating expenses monthly to Catalyst until Catalyst's lease and the sublease expired in February 2015.

On February 23, 2015, Catalyst entered into a new facility lease, pursuant to which Catalyst agreed to sublease the same space it has occupied until August 31, 2015.

Change in Fair Value of Warrant Liability

Change in fair value of warrant liability consists of gains and losses resulting from remeasurement of Catalyst's preferred stock warrant liability. Catalyst will continue to record adjustments to the estimated fair value of the preferred stock warrants until they are exercised, expire or convert into warrants to purchase shares of Targacept common stock upon the closing of the merger. At that time, Catalyst will reclassify the preferred stock warrant liability as additional paid-in capital and will no longer record any related periodic fair value adjustments.

Critical Accounting Polices and Estimates

Catalyst's management's discussion and analysis of financial condition and results of operations is based on its audited financial statements, which have been prepared in accordance with U.S. GAAP. The preparation of these financial statements requires Catalyst to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses. On an ongoing basis, Catalyst evaluates these estimates and judgments. Catalyst bases its estimates on historical experience and on various assumptions that it believes to be reasonable under the circumstances. These estimates and assumptions form the basis for making judgments about the carrying values of assets and liabilities and the recording of revenues and expenses that are not readily apparent from other sources. Actual results may differ materially from these estimates. Catalyst believes that the accounting policies discussed below are critical to understanding its historical and future performance, as these policies relate to the more significant areas involving management's judgments and estimates.

Revenue Recognition

Catalyst generates revenue from collaboration agreements pursuant to which it seeks the development and commercialization of its product candidates. Collaboration agreements provide for the payment to Catalyst of upfront license fees, success-based milestone payments, FTE-based payments for research services and royalties on any future sales of commercialized products that result from the collaboration. Catalyst's performance obligations under its collaboration agreements include licenses of intellectual property rights, obligations to provide research and development services, related clinical drug supply and regulatory approval services; and obligations to participate on certain development and/or commercialization committees with the collaborators.

Payments of upfront license fees are recorded as deferred revenue in Catalyst's balance sheet and are recognized as contract revenue over Catalyst's estimated period of performance in a manner consistent with the terms of the research and development obligations contained in the respective collaboration agreement. Catalyst regularly reviews the estimated periods of performance related to its collaboration agreements based on the progress made under each arrangement. Catalyst's estimates of its performance period may change over the course of the agreement term. Such a change could have a material impact on the amount of revenue Catalyst records in future periods.

Payments to Catalyst for research and development and regulatory approval services are recognized as the services are performed, in accordance with the respective contract terms. Payments for such services may be made to or by Catalyst based on the number of full-time equivalent researchers assigned to the collaboration project and the related research and development expenses incurred.

Revenue recognition for multiple revenue arrangements will have deliverables associated with the arrangement divided into separate units of accounting provided that (i) a delivered item has value to the customer on a standalone basis and (ii) if the arrangement includes a general right of return relative to the delivered item, delivery or performance of the undelivered item is considered probable and substantially in the control of the vendor. As a biotechnology company with unique and specialized technological undelivered performance obligations associated with its collaborations, Catalyst's multiple element arrangements have in the past often involved deliverables and consideration that do not meet the criteria for having stand-alone value.

Such deliverables and consideration must be accounted for under a single unit of accounting along with other arrangement deliverables and consideration that do not have stand-alone value and are recognized as revenue over the estimated period that the performance obligations are to be performed. The revenue is recognized on a proportional performance basis when the levels of the performance obligations under an arrangement can be reasonably estimated and on a straight-line basis when they cannot.

Catalyst also adopted guidance that permits the recognition of revenue contingent upon the achievement of a milestone in its entirety, in the period in which the milestone is achieved, only if the milestone meets certain criteria and is considered to be substantive. As such, Catalyst plans to recognize revenue in the period in which the milestone is achieved, only if the milestone is considered to be substantive based on the following criteria:

- the milestone is commensurate with either (i) the vendor's performance to achieve the milestone, or (ii) the enhancement of the value of the delivered item or items as a result of a specific outcome resulting from the vendor's performance to achieve the milestone;
- the milestone relates solely to past performance; and
- the milestone is reasonable relative to all of the deliverables and payment terms (including other potential milestone consideration) within the arrangement.

Accrued Research and Development Expenses

Catalyst records accrued expenses for estimated costs of its research and development activities conducted by external service providers, which include the conduct of preclinical studies and clinical trials and contract manufacturing activities. Catalyst records the estimated costs of research and development activities based upon the estimated amount of services provided but not yet invoiced, and includes these costs in accrued liabilities in the balance sheet and within research and development expense in the statement of operations and comprehensive loss. These costs are a significant component of Catalyst's research and development expenses. Catalyst records accrued expenses for these costs based on the estimated amount of work completed and in accordance with agreements established with these external service providers.

Catalyst estimates the amount of work completed through discussions with internal personnel and external service providers as to the progress or stage of completion of the services and the agreed-upon fee to be paid for such services. Catalyst makes significant judgments and estimates in determining the accrued balance in each reporting period. As actual costs become known, Catalyst adjusts its accrued estimates.

Stock-based Compensation

Catalyst recognizes compensation costs related to stock options granted to employees and directors based on the estimated fair value of the awards on the date of grant, net of estimated forfeitures. Catalyst estimates the grant date fair value, and the resulting stock-based compensation expense, using the Black-Scholes option-pricing model. The grant date fair value of the stock-based awards is generally recognized on a straight-line basis over the requisite service period, which is generally the vesting period of the respective awards.

The assumptions used to estimate the fair value of stock options granted to employees using the Black-Scholes option-pricing model were as follows:

	Year Ended December 31,		Three Months Ended March 31,	
	2014	2013	2015	2014
Risk-free interest rate	1.61%	1.06%	1.54%	1.60%
Expected life	5.14 years	5.98 years	6.45 years	5.13 years
Expected volatility	64.6%	78.2%	67.0%	64.5%
Dividend yield	—	—	—	—

The Black-Scholes option-pricing model requires the use of highly subjective assumptions, which determine the fair value of stock-based awards. These assumptions include:

Risk-Free Interest Rate. The risk-free interest rate is based on the U.S. Treasury zero coupon issues in effect at the time of grant for periods corresponding with the expected term of option.

Expected Term. The expected term represents the period that Catalyst's stock-based awards are expected to be outstanding and is determined using the simplified method (based on the mid-point between the vesting date and the end of the contractual term).

Expected Volatility. Because Catalyst is privately held and does not have any trading history for its common stock, the expected volatility was estimated based on the average volatility for comparable publicly traded biopharmaceutical companies over a period equal to the expected term of the stock option grants. The comparable companies were chosen based on their similar size, stage in the life cycle, or area of specialty.

Dividend Yield. Catalyst has never paid dividends on its common stock and has no plans to pay dividends on its common stock. Therefore, Catalyst used an expected dividend yield of zero.

Catalyst accounts for stock-based compensation arrangements with non-employees using a fair value approach. The fair value of options granted to non-employees is measured using the Black-Scholes option pricing model reflecting the same assumptions as applied to options granted to employees in each of the reported periods. The compensation costs of these arrangements are subject to remeasurement over the vesting terms as earned.

In addition to the Black-Scholes assumptions, Catalyst estimates its forfeiture rate based on an analysis of its actual forfeitures and will continue to evaluate the adequacy of the forfeiture rate based on actual forfeiture experience, analysis of employee turnover behavior, and other factors. The impact from any forfeiture rate adjustment would be recognized in full in the period of adjustment and if the actual number of future forfeitures differs from its estimates, Catalyst might be required to record adjustments to stock-based compensation in future periods.

Historically, the fair values of the shares of common stock underlying Catalyst's share-based awards were estimated on each grant date by Catalyst's board of directors. In order to determine the fair value of Catalyst's common stock underlying option grants, its board of directors considered, among other things, contemporaneous valuations of Catalyst's common stock prepared by an unrelated third-party valuation firm in accordance with the guidance provided by the American Institute of Certified Public Accountants Practice Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*. Given the absence of a public trading market for Catalyst's common stock, its board of directors exercised reasonable judgment and considered a number of objective and subjective factors to determine the best estimate of the fair value of Catalyst common stock, including Catalyst's stage of development; the progress of its research and development efforts; the rights, preferences and privileges of its preferred stock relative to those of its common stock; equity market conditions affecting comparable public companies; and the lack of marketability of its common stock.

Results of Operations

The following tables set forth Catalyst's results of operations data for the periods presented in thousands:

	Year Ended December 31,		Three Months Ended March 31,	
	2014	2013	2015	2014
Statement of Operations Data:				
Contract revenue	$ 1,813	$ 523	$ 672	$ 297
Operating expenses:				
Research and development	5,267	6,557	1,383	1,248
General and administrative	4,056	4,086	2,321	912
Total operating expenses	9,323	10,643	3,704	2,160
Loss from operations	(7,510)	(10,120)	(3,032)	(1,863)
Other income	542	154	96	129
Change in fair value of warrant liability	355	—	78	—
Net loss	$(6,613)	$ (9,966)	$(2,858)	$(1,734)

Comparison of Three Months Ended March 31, 2015 and March 31, 2014

Contract Revenue

	Three Months Ended March 31,		Increase / (Decrease)	% Increase / (Decrease)
	2015	2014		
	(in thousands, except percentages)			
Contract revenue	$ 672	$ 297	$ 375	126%

Contract revenue increased by $0.4 million, or 126%, from $0.3 million during the three months ended March 31, 2014 to $0.7 million during the three months ended March 31, 2015. The increase in contract revenue was due primarily to the recognition of the second contract revenue payment received in August 2014 under Catalyst's collaboration agreement with Pfizer in connection with the amortization of deferred revenue.

Research and Development Expenses

	Three Months Ended March 31,		Increase / (Decrease)	% Increase / (Decrease)
	2015	2014		
	(in thousands, except percentages)			
Research and development expenses	$ 1,383	$ 1,248	$ 135	11%

Research and development expenses increased by $135,000, or 11%, from $1.3 million during the three months ended March 31, 2014 to $1.4 million during the three months ended March 31, 2015. The increase was due primarily to an increase of $0.2 million in lab supply costs and costs related to preclinical third-party research and development service contracts, and an increase of $50,000 in personnel-related costs in connection with increased research and development activities. The increases were partially offset by a decrease of $0.2 million in facilities-related costs primarily as a result of Catalyst leasing less space following the new sub-leasing agreement entered into in February 2015.

General and Administrative Expenses

	Three Months Ended March 31,		Increase / (Decrease)	% Increase / (Decrease)
	2015	2014		
	(in thousands, except percentages)			
General and administrative expenses	$ 2,321	$ 912	$ 1,409	154%

General and administrative expenses increased by $1.4 million, or 154%, from $0.9 million during the three months ended March 31, 2015 as compared to $2.3 million during the three months ended March 31, 2014. The increase was primarily due to an increase of $1.3 million in professional service costs, including patent-related legal costs and merger-related legal and accounting advisory services and an increase of $0.1 million in personnel-related costs as a result of an increase headcount in anticipation of becoming a public company.

Other Income

	Three Months Ended March 31,		Increase / (Decrease)	% Increase / (Decrease)
	2015	2014		
	(in thousands, except percentages)			
Other income	$ 96	$ 129	$ (33)	(26%)

The decrease in other income of $33,000, or 26%, for the three months ended March 31, 2015 as compared to the three months ended March 31, 2014 was primarily due to a decrease in sublease income recognized in connection with the February 2014 expiration of a sublease agreement entered into by Catalyst in the third quarter of 2013.

Change in Fair Value of Warrant Liability

	Three Months Ended March 31,		Increase / (Decrease)	% Increase / (Decrease)
	2015	2014		
	(in thousands, except percentages)			
Change in fair value of warrant liability	$ 78	$ —	$ 78	N/A

The change in fair value of warrant liability for the three month ended March 31, 2015 was due to the remeasurement of the fair value of Catalyst's warrant liability related to the issuance of warrants for the purchase of shares of Catalyst convertible preferred stock in connection with Catalyst's Series E convertible preferred stock financing, which closed in April 2014.

Comparison of Years Ended December 31, 2014 and December 31, 2013

Contract Revenue

	Year Ended December 31,		Increase / (Decrease)	% Increase / (Decrease)
	2014	2013		
	(in thousands, except percentages)			
Contract revenue	$ 1,813	$ 523	$ 1,290	247%

Contract revenue increased by $1.3 million, or 247%, from $0.5 million for the year ended December 31, 2013 to $1.8 million for the year ended December 31, 2014. The increase in contract revenue during 2014 was due primarily to the recognition of contract revenues payments under Catalyst's collaboration agreements with Pfizer and ISU Abxis in connection with the amortization of deferred revenue.

Research and Development Expenses

	Year Ended December 31, 2014	Year Ended December 31, 2013	Increase / (Decrease)	% Increase / (Decrease)
	(in thousands, except percentages)			
Research and development expenses	$ 5,267	$ 6,557	$ (1,290)	(20)%

Research and development expenses decreased by $1.3 million, or 20%, from $6.6 million for the year ended December 31, 2013 to $5.3 million for the year ended December 31, 2014. The decrease was due primarily to a decrease of $0.6 million in personnel-related costs primarily as a result of a reduction in workforce; a decrease of $0.2 million costs in facilities-related costs primarily as a result of Catalyst sub-leasing a portion of its space, a decrease of $0.1 million in costs related to preclinical third-party research and development service contracts, and a decrease of $0.2 million in lab supply costs.

General and Administrative Expenses

	Year Ended December 31, 2014	Year Ended December 31, 2013	Increase / (Decrease)	% Increase / (Decrease)
	(in thousands, except percentages)			
General and administrative expenses	$ 4,055	$ 4,086	$ (31)	(1)%

General and administrative expenses decreased by $31,000, or 1%, for the year ended December 31, 2014 as compared to the year ended December 31, 2013, which was related to a decrease in personnel-related costs as a result of a reduction in workforce.

Other Income

	Year Ended December 31, 2014	Year Ended December 31, 2013	Increase / (Decrease)	% Increase / (Decrease)
	(in thousands, except percentages)			
Other income	$ 541	$ 154	$ 387	252%

The increase in other income of $0.4 million, or 252%, for the year ended December 31, 2014 as compared to the year ended December 31, 2013 was primarily due to a $0.4 million increase in sublease income recognized in connection with Catalyst entering into the sublease agreement in the third quarter of 2013.

Change in Fair Value of Warrant Liability

	Year Ended December 31, 2014	Year Ended December 31, 2013	Increase / (Decrease)	% Increase / (Decrease)
	(in thousands, except percentages)			
Change in fair value of warrant liability	$ 355	$ —	$ 355	N/A

The change in fair value of warrant liability for the year ended December 31, 2014 was primarily due to the decrease in the fair value of Catalyst's warrant liability related to the issuance of warrants for the purchase of shares of Catalyst convertible preferred stock in connection with Catalyst's Series E convertible preferred stock financing, which closed during 2014.

Liquidity and Capital Resources

Since inception through March 31, 2015, Catalyst's operations have been financed primarily by net proceeds of $117.3 million from the sale of shares of its convertible preferred stock and $55.7 million of payments under Catalyst's collaboration agreements, including upfront license fees and FTE-related fees. As of March 31, 2015, Catalyst had $2.1 million of cash and cash equivalents. Catalyst has an accumulated deficit of $119.1 million as

of March 31, 2015 and negative cash flows from operating activities and expects to continue to incur losses for the next several years. Catalyst's recurring losses from operations and negative cash flows from operations that raise substantial doubt regarding its ability to continue as a going concern.

In May and June 2015, Catalyst issued and sold convertible promissory notes in a series of closings in the aggregate principal amount of $1.9 million to existing stockholders, together with warrants to purchase shares of Catalyst's capital stock. The convertible promissory notes are unsecured obligations of Catalyst, accrue interest at a rate of 12% per annum and will mature one year from the date of issuance, unless earlier converted into shares of preferred stock upon a financing or otherwise in accordance with their terms. Catalyst also issued and sold to each investor purchasing a convertible promissory note a warrant to purchase equity securities of the same type that the principal amount of the convertible promissory note issued to such investor converts into. The warrants are exercisable for up to a number of shares equal 25% multiplied by the principal amount of the convertible promissory note issued to such investor, divided by the applicable exercise price for the shares, which will be the purchase price of the securities into which the corresponding convertible promissory notes convert. See "Related Party Transactions of Combined Company—Catalyst Transactions—Convertible Promissory Notes" beginning on page 288.

Catalyst's primary uses of cash are to fund operating expenses, primarily research and development expenditures. Cash used to fund operating expenses is impacted by the timing of when Catalyst pays these expenses, as reflected in the change in its outstanding accounts payable and accrued expenses.

Catalyst believes that its existing capital resources, together with the funds that will be available as a result of the merger, should it be completed, will be sufficient to meet Catalyst's projected operating requirements through 2016. Catalyst has based this estimate on assumptions that may prove to be wrong, and Catalyst could utilize its available capital resources sooner than it currently expects. Catalyst will need additional funding to fund its operations but additional funds may not be available to Catalyst on acceptable terms on a timely basis, if at all. If Catalyst is unable to raise additional capital to adequately fund its operations, Catalyst will need to curtail planned activities to reduce costs. Doing so will likely harm Catalyst's ability to execute on its business plan.

The following table summarizes Catalyst's cash flows for the periods indicated:

	Year Ended December 31,		Three Months Ended March 31,	
	2014	2013	2015	2014
			(Unaudited)	
	(in thousands)			
Cash used in operating activities	$(6,390)	$(6,274)	$(2,981)	$(1,697)
Cash provided by (used in) investing activities	98	(41)	222	98
Cash provided by financing activities	5,007	5,742	3,284	—
Net increase (decrease) in cash	(1,285)	(573)	525	(1,599)

Cash Flows from Operating Activities

Cash used in operating activities for the three months ended March 31, 2015 was $3.0 million. The net loss of $2.9 million was offset by non-cash charges of $0.1 million for depreciation and amortization and $44,000 for stock-based compensation, partially offset by $78,000 for non-cash gain related to change in fair value of warrant liability. Cash used in operating activities also reflected the change in net operating assets of $0.2 million primarily due to a $0.7 million decrease of deferred revenue due to the recognition of collaboration revenue earned over the estimated period of performance under Catalyst's collaboration arrangements, a $0.3 million increase of accounts receivables related research and development costs reimbursement from Pfizer and a $0.2 million increase in prepaid and other current assets related to rent prepayment. The decrease was partially offset by a $0.6 million increase in accounts payable and a $0.5 million increase in accrued compensation and other accrued liabilities related to Catalyst's increased research and development activities and proposed merger related activities.

Cash used in operating activities for the three months ended March 31, 2014 was $1.7 million. The net loss of $1.7 million was offset by non-cash charges of $0.2 million for depreciation and amortization, $72,000 for stock-based compensation and $77,000 for loss on disposal of fixed assets. Cash used in operating activities also reflected the change in net operating assets of $0.3 million primarily due to a $0.3 million decrease of deferred revenue due to the recognition of collaboration revenue earned over the estimated period of performance under Catalyst's collaboration arrangements.

Cash used in operating activities for the year ended December 31, 2014 was $6.4 million, consisting of a net loss of $6.6 million, which was offset by non-cash charges $0.7 million for depreciation and amortization expense, $0.2 million for stock-based compensation and the change in fair value of Catalyst's convertible warrant liability of $0.4 million. The change in Catalyst's net operating assets and liabilities was primarily due to a $0.3 million decrease of deferred revenue due to $1.8 million of collaboration revenue earned over the estimated period of performance under Catalyst's collaboration arrangements, partially offset by a $1.5 million payment received in the third quarter of 2014 under Catalyst's collaboration agreement with Pfizer and a $0.2 million decrease in deferred rent for its leased facility.

Cash used by operating activities for the year ended December 31, 2013 was $6.3 million, consisting of a net loss of $10.0 million, which was offset by non-cash charges $1.0 million for depreciation and amortization expense and $0.3 million for stock-based compensation. The change in Catalyst's net operating assets and liabilities was primarily due to a $2.8 million increase in deferred revenue related to the receipt of $3.3 million in payments under Catalyst's collaboration arrangements offset by the recognition of revenue of $0.5 million, and a $0.2 million decrease in accrued compensation and other accrued liabilities related to Catalyst's reduction in workforce.

Cash Flows from Investing Activities

Cash provided by investing activities for the three months ended March 31, 2015 of $0.2 million was primarily from the receipt of $0.3 million upon expiration of Catalyst's lease term in February 2015, partially offset by an increase of $57,000 in restricted cash related to a letter of credit obtained for the new facility lease agreement.

Cash resulting from investing activities was $98,000 for the three months ended March 31, 2014 was related to the sale of property and equipment.

Cash resulting from investing activities was $98,000 for the year ended December 31, 2014 was related to the sale of property and equipment.

Cash used in investing activities was $41,000 for the year ended December 31, 2013 and was related to the purchase of property and equipment.

Cash flows from Financing Activities

Cash provided by financing activities for the three months ended March 31, 2015 of $3.3 million was primarily from the issuance of convertible preferred stock of $3.3 million.

There were no financing activities for the three months ended March 31, 2014.

Cash provided by financing activities for the years ended December 31, 2014 and 2013 was primarily related to proceeds from the issuance of convertible preferred stock of $5.0 million and $5.7 million, respectively.

Contractual Obligations

The following table summarizes Catalyst's fixed contractual obligations as of December 31, 2014:

	Payments due by period				
	Less than 1 year	1 to 3 years	3 to 5 years	More than 5 years	Total
	(in thousands)				
Contractual Obligations:					
Operating lease obligations(1)	$ 437	$—	$—	$ —	$437
Total contractual obligations(2)(3)	$ 437	$—	$—	$ —	$437

(1) Represents future minimum lease payments under the non-cancelable lease for Catalyst's headquarters in South San Francisco, California. The minimum lease payments above do not include any related common area maintenance charges or real estate taxes.

(2) Catalyst may be obligated to pay ISU Abxis up to $2.0 million in potential milestone payments. As the achievement and timing of these milestones are not probable and estimable, such commitments have not been included in the contractual obligations table above.

(3) Catalyst had unrecognized tax benefits in the amount of $2.6 million as of December 31, 2014 related to uncertain tax positions. However, there is uncertainty regarding when these liabilities will require settlement so these amounts were not included in the contractual obligations table above.

On August 22, 2013, Catalyst entered into a sub-lease agreement with another biotech company whereby the sublessee agreed to lease a portion of Catalyst's leased facility in South San Francisco, California. Under the sub-lease agreement, the sublessee paid rent and a share of facility operating expenses monthly to Catalyst. Catalyst's lease for the facility and the sub-lease arrangement with the sublessee both expired in February 2015. No further payments are required under the sublease.

On February 23, 2015, Catalyst entered into a sublease for the same building that it had occupied prior to the expiration of its lease, which expired on February 28, 2015. The initial term of the sublease commenced on March 1, 2015 and expires on August 31, 2015, subject to Catalyst's option to extend the term to include the period from September 1, 2015 through February 27, 2018 by giving written notice to the sublandlord at any time on or before June 30, 2015. On March 1, 2015, Catalyst obtained a letter of credit in the amount of $57,000 secured by $57,000 of cash held in Catalyst's bank account to satisfy the security deposit. Catalyst also made a payment to the sublandlord in the amount of $0.4 million to prepay rent from March 1, 2015 through August 31, 2015.

Off-Balance Sheet Arrangements

Catalyst does not have any off-balance sheet arrangements.

Quantitative and Qualitative Disclosures about Market Risk

Catalyst had cash and cash equivalents of $2.1 million as of March 31, 2015, which consisted of bank deposits and money market funds. Catalyst's primary exposure to market risk is interest income sensitivity, which is affected by changes in the general level of U.S. interest rates. However, because of the short-term nature of the instruments in Catalyst's portfolio, a sudden change in market interest rates would not be expected to have a material impact on the fair market value of its investment portfolios. Accordingly, Catalyst would not expect its operating results or cash flows to be affected to any significant degree by the effect of a sudden change in market interest rates on its investment portfolio. Catalyst had no outstanding debt as of March 31, 2015.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board, or FASB, issued Accounting Standards Update, or ASU, 2014-09, *Revenue from Contracts with Customers*, or ASU 2014-09, which converges the FASB and the International Accounting Standards Board standards on revenue recognition. Areas of revenue recognition that will be affected include, but are not limited to, transfer of control, variable consideration, allocation of transfer pricing, licenses, time value of money, contract costs and disclosures. This guidance is effective for the fiscal years and interim reporting periods beginning after December 15, 2016, at which time Catalyst may adopt the new standard under the full retrospective method or the modified retrospective method. Early adoption is not permitted. In May 2015, the FASB issued an exposure draft to extend the current effective date of ASU 2014-09 by a year for both public and non-public companies. Catalyst is currently evaluating the impact that the adoption of ASU 2014-09 will have on its financial statements and related disclosures.

In August 2014, the FASB issued ASU 2014-15, *Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern.* ASU 2014-15 requires management to evaluate relevant conditions, events and certain management plans that are known or reasonably knowable that, when considered in the aggregate, raise substantial doubt about the entity's ability to continue as a going concern within one year after the date that the financial statements are issued, for both annual and interim periods. ASU 2014-15 also requires certain disclosures around management's plans and evaluation, as well as the plans, if any, that are intended to mitigate those conditions or events that will alleviate the substantial doubt. ASU 2014-15 is effective for fiscal years ending after December 15, 2016. Catalyst is currently evaluating the impact that the adoption of ASU 2014-15 will have on its financial statements and related disclosures.

MANAGEMENT FOLLOWING THE MERGER

Executive Officers and Directors

Termination of Current Executive Officers of Targacept

The employment of the current executive officers of Targacept is expected to be terminated immediately prior to the completion of the merger, however, if necessary, certain executive officers may provide transitional services to the combined company following the completion of the merger.

Executive Officers and Directors of the Combined Company Following the Merger

Following the merger, the combined company's directors will consist of three members of the current Targacept board of directors, namely John P. Richard, Errol B. De Souza, Ph.D. and Stephen A. Hill, M.D., and four members of the current Catalyst board of directors, namely Harold E. Selick, Ph.D., who will be the Chairman, Nassim Usman, Ph.D., Jeff Himawan, Ph.D., and Augustine Lawlor. The staggered structure of the current Targacept board of directors will remain in place for the combined company following the completion of the merger, provided that Dr. Hill will be re-appointed as a Class I director.

The following table lists the names and ages as of July 15, 2015 and positions of the individuals who are expected to serve as executive officers and directors of the combined company upon completion of the merger:

Name	Age	Position(s)
Executive Officers		
Nassim Usman, Ph.D.	56	President, Chief Executive Officer and Class III Director
Edwin L. Madison, Ph.D.	60	Chief Scientific Officer
Fletcher Payne	52	Chief Financial Officer
Non-Employee Directors		
Harold E. Selick, Ph.D.	61	Chairman of the Board of Directors and Class III Director
Stephen A. Hill, M.D.	57	Class I Director
Augustine Lawlor	59	Class I Director
Jeff Himawan, Ph.D.	49	Class II Director
John P. Richard	57	Class II Director
Errol B. De Souza, Ph.D.	61	Class III Director

Executive Officers

Nassim Usman, Ph.D. has served as Chief Executive Officer and a member of the board of directors of Catalyst since February 2006 and as President since May 2015. Dr. Usman joined Catalyst from Morgenthaler Ventures, where he is currently a venture partner. Prior to joining Morgenthaler in 2005, he was senior vice president and chief operating officer at Sirna Therapeutics Inc., which was subsequently acquired by Merck, from 2004 to 2005, and held various R&D positions at both Sirna and Ribozyme Pharmaceuticals, including vice president of R&D and chief science officer, from 1992 to 2004. During his industrial career, Dr. Usman has overseen the entry of several drugs into clinical development, completion of multiple licensing deals with pharmaceutical and biotechnology companies and raise of capital in both private and public financings. Prior to moving into the private sector in 1992, Dr. Usman was an NIH Fogarty and NSERC Postdoctoral Fellow and Scientist in the Departments of Biology and Chemistry at the Massachusetts Institute of Technology from 1987 to 1992. He has authored more than 70 scientific articles and is the named inventor in 130 issued patents and patent applications. Dr. Usman serves on the boards of directors of Mosaic Biosciences and Principia Biopharma, is a past director of Osprey Pharmaceuticals, Archemix Corporation and Atugen AG (now Silence Therapeutics) and served on the science advisory boards of RXi Pharmaceuticals and Noxxon Pharma AG. He received his B.Sc. (Honours) and Ph.D. in Organic Chemistry from McGill University. In his doctoral dissertation, he developed a method for the solid-phase synthesis of RNA that is widely used in science and in a marketed RNA product (Macugen™).

Dr. Usman's role as Catalyst's chief executive, prior board service, and extensive experience and innovations in the field of biotechnology, particularly with companies engaged in clinical drug development, enable him to bring a unique perspective to the board of directors. In addition, Dr. Usman's academic expertise and accomplishments provide the board of directors with in-depth product and field knowledge.

Edwin L. Madison, Ph.D. has been Chief Scientific Officer of Catalyst since February 2006, after joining in 2003 as Vice President of Research. Prior to joining Catalyst, Dr. Madison was vice president of biological research at Dendreon San Diego and Dendreon Corporation. Dr. Madison has achieved an international reputation in the fields of serine protease and serpin basic research, and he is a lead inventor of a currently marketed protease therapeutic agent. Dr. Madison has served as a faculty member at The Torrey Pines Institute for Molecular Studies as professor of vascular biology, at The Scripps Research Institute as associate professor of vascular biology and at the University of Texas—Southwestern Medical Center with joint appointments in the departments of Biochemistry and Internal Medicine. Dr. Madison received his Ph.D. in Biochemistry from the University of Texas—Southwestern Medical Center.

Fletcher Payne has been Catalyst's Chief Financial Officer since January 2015. Mr. Payne joined Catalyst in a consulting capacity through Danforth Advisors LLC, where he worked as a consultant, until April 2015, when he became a Catalyst employee. He has been a consulting chief financial officer of CFP Advisory since November 2011, and from September 2008 to November 2011, Mr. Payne served as chief financial officer of Pathwork Diagnostics. Mr. Payne has also served in senior financial positions at CytomX Therapeutics, Plexxikon Inc., Rinat Neuroscience Corporation, Dynavax Technologies Corporation, Cell Genesys, Abgenix, Sun Micro Systems, and IBM. Mr. Payne has over 20 years of experience helping life science companies achieve their business goals. His life science experience includes successful start-ups, initial public offerings, mergers, spin-outs, financings, business collaborations and working with R&D teams whose efforts have led to four products receiving FDA clearance. Mr. Payne graduated with a B.S. in Finance from the Haas School of Business, University of California, Berkeley.

Non-Employee Directors

Harold E. Selick, Ph.D. has been a member of the board of directors of Catalyst since 2003 and became Chairman of the Board of Directors in 2006. Dr. Selick also serves as chief executive officer of Threshold Pharmaceuticals since joining in June 2002. From June 2002 to July 2007, he was a venture partner of Sofinnova Ventures, Inc., a venture capital firm. From January 1999 to April 2002, Dr. Selick was chief executive officer of Camitro Corporation, a biotechnology company. In 2001, he co-founded Epiphany Biosciences, Inc., a late-stage biotechnology company. Previously, Dr. Selick was co-founder, president, and chief executive officer of Camitro beginning in November 1999. He has served as vice president of research at Affymax Research Institute, where he directed activities in combinatorial chemistry-based drug discovery. Dr. Selick was a successful bench scientist and one of the earliest employees of Protein Design Labs, where he co-invented a technology underlying the creation of fully humanized antibody therapeutics and applied that technology to PDL's first product, Zenapax, which was developed and commercialized by Roche for treating kidney transplant rejection. He has been a director of Protein Design Labs, Inc. since 2009. He also currently serves as the chairman of the board of directors of Protagonist Therapeutics, Inc. He was a Damon Runyon-Walter Winchell Cancer Fund Fellow and an American Cancer Society Senior Fellow at the University of California, San Francisco. He is the co-author of 17 publications and a co-inventor named in 11 U.S. patents. Dr. Selick received his B.S. and Ph.D. from the University of Pennsylvania.

Dr. Selick's qualifications to sit on the board of directors include his years of leadership in the biotechnology industry, his considerable studies in the field, and his continued service leading the boards of directors of both private and public companies.

Errol B. De Souza, Ph.D. has been a member of the board of directors of Targacept since January 2004. Since March 2010, Dr. De Souza has been president and chief executive officer of Biodel Inc., a specialty pharmaceutical company. From April 2009 to March 2010, Dr. De Souza was a pharmaceutical and biotechnology consultant. From

April 2003 to March 2009, he served as president and chief executive officer of Archemix Corporation, a privately held biopharmaceutical company. Dr. De Souza currently serves as a member of the board of directors of each of the publicly traded companies Biodel Inc. and Bionomics Ltd. Within the past five years, he served on the board of directors of each of the publicly-traded companies IDEXX Laboratories, Inc. and Palatin Technologies, Inc. Dr. De Souza brings to the Targacept board of directors substantial experience as an executive in the pharmaceutical industry, having served as president and chief executive officer of Synaptic Pharmaceutical Corp. until its sale to H. Lundbeck A/S, in addition to Biodel and Archemix. Over Dr. De Souza's career, he has also served in a number of high-ranking research and development roles, including senior vice president and head of global lead generation for Hoechst Marion Roussel and senior vice president and U.S. head of drug innovation and approval following that company's merger with Rhône-Poulenc to form Aventis (now Sanofi-Aventis) and co-founder and executive vice president of research and development at Neurocrine Biosciences, Inc.

We believe that these experiences, together with his service as a director for other biopharmaceutical companies, will enable Dr. De Souza to contribute valuable insight to the combined company's board of directors regarding pharmaceutical portfolio development and management from both large company and emerging company perspectives.

Stephen A. Hill, M.D. has served as President and Chief Executive Officer and a member of the board of directors of Targacept since December 2012. From May 2012 to November 2012, Dr. Hill served as president and chief executive officer of QUE Oncology, a start-up biotechnology company, and, from March 2011 to December 2011, he served as president and chief executive officer of 21st Century Biodefense, Inc., a biodefense company. From April 2008 until its acquisition in December 2010, he served as president and chief executive officer of Solvay Pharmaceuticals, Inc., a pharmaceutical company. Prior to Solvay, he served as president, chief executive officer and director of ArQule, Inc., a pharmaceutical company, from April 1999 to March 2008. Dr. Hill is a member of the board of directors of the publicly traded companies Cellectar Biosciences, Inc. (formerly Novelos Therapeutics, Inc.) and Lipocine, Inc. Dr. Hill's service as a director enables the Targacept board of directors to perform its responsibilities with the direct benefit of management's perspectives. In addition, he brings to the Targacept board of directors extensive experience across a range of senior management positions with both pharmaceutical and biotechnology companies. Prior to Solvay and ArQule, Dr. Hill held several leadership positions with F. Hoffmann-La Roche Ltd., including Global Head of Clinical Development, and served for seven years with the National Health Service in the United Kingdom in General and Orthopedic Surgery.

Dr. Hill's prior service as Targacept's chief executive, together with his breadth of experience with pharmaceutical and biotechnology companies, make him uniquely suited to serve on the board of directors.

Jeff Himawan, Ph.D. has been a member of the board of directors of Catalyst since December 2008. Dr. Himawan is a managing director at Essex Woodlands Health Ventures, a healthcare focused venture capital firm, where he previously served as a partner from 2001 to 2004 and as an adjunct partner from 1999 to 2001. He has over 20 years of experience as a scientist, entrepreneur and venture capitalist. Dr. Himawan was a co-founder and managing director of Seed-One Ventures, LLC, a venture capital firm that specializes in the initial formation, financing and early operational development of technology-based companies, from 1996 to 2001. From 1983 to 1996, Dr. Himawan was a scientist in academic and industrial settings. He is the named inventor in several issued patents in the fields of wireless communication, biotechnology and protein chemistry. He currently serves as a director of MediciNova and Horizon Pharma, two publicly traded companies, as well as Light Sciences Oncology, Ception Therapeutics and Symphogen. He has previously served as a director of Iomai, a publicly traded company, as well as Complete Genomics and OMT Therapeutics. Dr. Himawan received his B.S. from Massachusetts Institute of Technology and his Ph.D. from Harvard University.

We believe Dr. Himawan's extensive experience in the biotechnology industry, considerable service on both public and private boards of directors, and background in corporate finance and raising capital will enable him to contribute important strategic insight to the combined company's board of directors.

Augustine Lawlor has been a member of the board of directors of Catalyst since February 2006. He has been a managing director of HealthCare Ventures since 2000. From 1997 to 2000, he served as chief operating officer of LeukoSite, Inc., a HealthCare Ventures III, IV and V company. Prior to joining LeukoSite, Mr. Lawlor was chief financial officer and vice president of corporate development for Alpha-Beta Technology. He has held similar positions at both BioSurface Technology and Armstrong Pharmaceuticals. Mr. Lawlor was previously a management consultant with KPMG Peat Marwick. He is currently a director of Cardiovascular Systems, Globe Immune, Promedior, Inc., Mosaic Biosciences, Inc., Tensha Therapeutics, Inc., HealthCare Pharmaceuticals, Inc., Cleveland HeartLab, LLC, GITR, Inc., Anexon, Inc. and the Slater Center for Biomedical Technology, a technology commercialization center providing support services for development of therapeutics. Mr. Lawlor has previously served as a director of Human Genome Sciences, which has since been acquired by GlaxoSmithKline and Replidyne, Inc. Mr. Lawlor received his Master's in Public and Private Management from Yale University.

Mr. Lawlor brings an important insight and knowledge to the combined company's board of directors based on his experience as a successful venture capitalist, service on the boards of public and private companies, and roles in commercial and business development in the pharmaceutical and biotechnology industries.

John P. Richard has been a member of the board of directors of Targacept since November 2002, and has served as Chairman since January 2014. Mr. Richard is an operating partner at the life science investment firm Phase4 Partners (formerly Nomura Phase4 Ventures), and has served as a non-executive director for Phase4 since March 2011 and as a venture partner since 2008. Since 2005 he has also been a managing director of Georgia Venture Partners, a seed venture capital firm that focuses on the biotechnology industry. In addition, Mr. Richard currently serves and from time to time during at least the past five years has served as a consultant to Phase4 Partners (or its predecessor) and certain of its portfolio companies, and to portfolio companies of Georgia Venture Partners. Mr. Richard has been a director of the publicly-traded company Biota Pharmaceuticals, Inc. since August 2013.

Mr. Richard brings to the board of directors extensive business development experience, having led that function at three separate life science companies and played a primary role in establishing numerous pharmaceutical alliances. In addition, we believe the breadth of Mr. Richard's current roles will enable him to view issues that the combined company faces from a variety of perspectives, including as an executive, investor, director and business development professional.

Board of Directors of the Combined Company Following the Merger

In accordance with Targacept's bylaws and certificate of incorporation, Targacept's board of directors currently consists of seven directors divided into three staggered classes, with one class to be elected at each Targacept annual stockholders meeting to serve for a three-year term. The staggered structure of the board of directors will remain in place for the combined company following the completion of the merger. At Targacept's most recent annual stockholders meeting held in 2014, Class II directors were elected. As a result, the term of the Class II directors of the combined company is set to expire upon the election and qualification of successor directors at the Targacept annual stockholders meeting in 2017, and the terms of the Class I and Class III directors will expire upon the election and qualification of successor directors at the annual stockholders meetings in 2016 and 2018, respectively. One Class III seat is currently vacant as a result of the resignation of Mark Skaletsky, Targacept's former Chairman, in November 2013.

The director classes for Targacept are currently as follows:

- Class I directors: Charles A. Blixt and Alan W. Dunton, M.D.;
- Class II directors: Julia R. Brown, Stephen A. Hill and John P. Richard; and
- Class III directors: Errol B. De Souza, Ph.D.

Following the merger, the combined company's directors will consist of three members of the current Targacept board of directors, namely John P. Richard, Errol B. De Souza, Ph.D. and Stephen A. Hill, M.D., and four

members of the current Catalyst board of directors, namely Harold E. Selick, Ph.D., who will be the Chairman, Nassim Usman, Ph.D., Jeff Himawan, Ph.D., and Augustine Lawlor. The staggered structure of the current Targacept board of directors will remain in place for the combined company following the completion of the merger, provided that Dr. Hill will be re-appointed as a Class I director.

Pursuant to the terms of the Merger Agreement, it is anticipated that these directors will be appointed to the three staggered director classes of the combined company board of directors as follows:

- Class I directors (term ending 2016): Stephen A. Hill, M.D. and Augustine Lawlor;
- Class II directors (term ending 2017): John P. Richard and Jeff Himawan, Ph.D.; and
- Class III directors (term ending 2018): Errol B. De Souza, Ph.D., Harold E. Selick, Ph.D. and Nassim Usman, Ph.D.

There are no family relationships among any of the current Targacept directors and executive officers, and there are no family relationships among any of the proposed combined company directors and officers.

Director Independence

NASDAQ's listing standards and Targacept's Corporate Governance Guidelines require that the Targacept board of directors consist of a majority of independent directors, as determined under the applicable NASDAQ listing standard. The board of directors, consistent with the determination of its Governance and Nominating Committee, has determined that each of Mr. Richard, Mr. Blixt, Ms. Brown, Dr. De Souza and Dr. Dunton qualifies as an independent director.

The Targacept board of directors believes that each of Dr. Selick, Mr. Lawlor, Mr. Richard, Dr. Himawan and Dr. De Souza will qualify as an independent director following the completion of the merger.

Committees of the Board of Directors

The Targacept board of directors currently has, and following the completion of the merger will continue to have, the following committees: an Audit Committee, a Compensation Committee, and a Governance and Nominating Committee. Targacept's board of directors currently has a Technology and Innovation Committee, which is not expected to continue following the completion of the merger.

Audit Committee

Targacept's Audit Committee generally assists the Targacept board of directors in its oversight of Targacept's accounting, financial reporting and internal control functions. The responsibilities of the Audit Committee include the following:

- the appointment, compensation, retention and oversight of any independent registered public accounting firm that Targacept engages to issue an audit report, or to perform other audit, review or attest services, for its financial statements, and evaluating auditor independence;
- receiving and reviewing reports of management and the independent registered public accounting firm regarding the annual audit process, as well as the review process for its interim financial statements;
- reviewing with management significant accounting issues, policies relating to its financial statements and its cash management program;
- discussing with management and the independent registered public accounting firm its exposure to material risks and the adequacy of its risk management activities;
- reviewing management's assessment of the effectiveness of, and its independent registered public accounting firm's report on, its internal control over financial reporting;

- approving, to the extent required by applicable law or NASDAQ listing standards or by its related person transactions policy, related person transactions;
- establishing procedures for the receipt, retention and treatment of complaints regarding accounting, internal accounting controls or auditing matters;
- responding to any report of evidence of a material violation of the securities laws or breach of fiduciary duty that it receives; and
- preparing the report of the audit committee required by applicable SEC rules to be included in its annual proxy statement.

The Audit Committee currently consists of Mr. Blixt, who serves as chairman, Dr. De Souza and Mr. Richard. The Targacept board of directors has determined that Mr. Richard is an "audit committee financial expert" as defined in Item 407(d)(5) of Regulation S-K.

The Audit Committee of the combined company is expected to retain these duties and responsibilities following completion of the merger.

Following the closing of the merger, the members of the Audit Committee are expected to be Mr. Lawlor, who is expected to serve as chairman, Dr. Himawan and Mr. Richard. To qualify as independent to serve on Targacept's Audit Committee, the NASDAQ Stock Market listing standards and the applicable rules of the SEC require that a director does not accept any consulting, advisory, or other compensatory fee from Targacept, other than for service as a director, or be an affiliated person of Targacept. The board of directors of Targacept has concluded that the current composition of the Audit Committee meets the requirements for independence under the rules and regulations of The NASDAQ Stock Market LLC and of the SEC. Targacept and Catalyst believe that, following completion of the merger, the functioning of the Audit Committee will comply with the applicable requirements of the rules and regulations of The NASDAQ Stock Market LLC and of the SEC.

Compensation Committee

The responsibilities of Targacept's Compensation Committee include the following:

- reviewing periodically Targacept's compensation philosophy and the adequacy of compensation plans and programs for its executive officers and other employees;
- the appointment, compensation and oversight of any compensation expert, legal counsel or other adviser that the Compensation Committee determines to engage and the consideration of factors relevant to such expert's, counsel's or adviser's independence;
- reviewing the performance of its Chief Executive Officer and establishing the compensation of all of its executive officers;
- approving employment, severance and change in control agreements, and any amendments, for Targacept's executive officers;
- administering Targacept's 2006 Stock Incentive Plan and any other stock-based plans, as well as other employee benefit and incentive plans;
- assessing annually any risks associated with its compensation policies and practices;
- reviewing and discussing with management its Compensation Discussion and Analysis disclosure and formally recommending to the Targacept board of directors that it be included in its annual report on Form 10-K (either directly or by incorporation by reference to its annual proxy statement);
- making a recommendation to the Targacept board of directors with respect to the Targacept board of directors' recommendation to its stockholders on any proposal that its stockholders approve the compensation of its named executive officers on an advisory basis;

- making a recommendation to the Targacept board of directors, at least once every six years, whether to submit the compensation of its named executive officers to an advisory vote of its stockholders every one, two or three years; and
- preparing the report of the Compensation Committee required by applicable SEC rules to be included in its annual report on Form 10-K (either directly or by incorporation by reference to its annual proxy statement).

The current members of Targacept's Compensation Committee are Ms. Brown, who serves as chairperson, Dr. Dunton and Mr. Richard.

The Compensation Committee of the combined company is expected to retain these duties and responsibilities following completion of the merger.

Following the closing of the merger, the members of the Compensation Committee are expected to be Dr. Selick, who is expected to serve as chairman, Dr. Himawan and Mr. Richard. To qualify as independent to serve on Targacept's Compensation Committee, the NASDAQ Stock Market listing standards require a director not to accept any consulting, advisory, or other compensatory fee from Targacept, other than for service on the Targacept board of directors, and that the Targacept board of directors consider whether a director is affiliated with Targacept and, if so, whether such affiliation would impair the director's judgment as a member of the Compensation Committee. The board of directors of Targacept has concluded that the composition of the Compensation Committee meets the requirements for independence under the rules and regulations of the NASDAQ Stock Market LLC and of the SEC. Targacept and Catalyst believe that, after the completion of the merger, the composition of the Compensation Committee will meet the requirements for independence under, and the functioning of such Compensation Committee will comply with any applicable requirements of the rules and regulations of The NASDAQ Stock Market LLC and of the SEC.

Governance and Nominating Committee

The responsibilities of Targacept's Governance and Nominating Committee include the following:

- identifying individuals qualified to serve as directors and committee members, recommending to Targacept's board of directors nominees for election at its annual stockholders meetings and recommending to Targacept's board of directors individuals to fill vacancies on the board;
- making recommendations to Targacept's board of directors concerning the criteria for membership on Targacept's board of directors and the size, composition, chairmanship and compensation of Targacept's board of directors and its committees;
- considering whether and how it takes into account diversity in identifying nominees;
- monitoring and making recommendations to Targacept's board of directors regarding corporate governance matters;
- advising Targacept's board of directors on corporate governance matters generally;
- conducting an annual review of the performance of Targacept's board of directors and its committees; and
- periodically evaluating and making recommendations to Targacept's board of directors concerning the compensation of non-employee directors.

The Governance and Nominating Committee operates based on the belief that the backgrounds and qualifications of the directors as a group provide a significant breadth and diversity of experience, knowledge and abilities. In considering whether to recommend any particular candidate for inclusion in Targacept's slate of recommended

nominees, the Governance and Nominating Committee applies certain criteria found in the Corporate Governance Guidelines. In particular, each nominee should possess:

- a reputation for integrity, honesty and adherence to high ethical standards;
- sound judgment and a willingness and ability to contribute positively to decision-making processes;
- a commitment to understand Targacept and its industry and to regularly attend and participate in meetings of Targacept's board of directors and, as applicable, its committees;
- the interest and ability to understand sometimes conflicting interests of various constituencies, such as stockholders, employees, governmental or regulatory bodies, creditors and the general public, and to act in the interests of all stockholders; and
- no actual or apparent conflict of interest that would impair the ability to represent the interests of all stockholders and to fulfill the responsibilities of a director.

The Governance and Nominating Committee does not assign specific weights to particular criteria, and no particular criterion is a prerequisite for a nominee.

The Governance and Nominating Committee recommends to the Targacept board of directors individuals to be nominated for election as directors. In considering an incumbent director as a nominee, the Governance and Nominating Committee considers his or her prior contributions to the functioning of the Targacept board of directors and, as applicable, its committees. The Governance and Nominating Committee may also receive recommendations for nominees from members of the Targacept board of directors or management and may from time to time engage a third-party search firm to help identify potential nominees. If a candidate is identified, the Governance and Nominating Committee evaluates his or her qualifications and other biographical information, taking into account the backgrounds and qualifications of the continuing members of the Targacept board of directors and the criteria included in Targacept's Corporate Governance Guidelines. Members of the Governance and Nominating Committee and the Chief Executive Officer then interview the candidate or, if multiple candidates are identified, select candidates. Following discussion of the candidates identified and evaluated, the Governance and Nominating Committee recommends to the Targacept board of directors a list of nominees for election.

The current members of Targacept's Governance and Nominating Committee are Mr. Blixt, Ms. Brown, and Dr. De Souza, who serves as chairperson.

The Governance and Nominating Committee of the combined organization is expected to retain these duties and responsibilities following completion of the merger.

Following the closing of the merger, the members of the Governance and Nominating Committee are expected to be Mr. Richard, who is expected to serve as chairman, Dr. De Souza and Dr. Selick.

Director Compensation

Catalyst does not have a director compensation policy, and, except for the agreement with Dr. Selick discussed below, none of Catalyst's directors received compensation for service during 2013 or 2014. However, Catalyst does provide reimbursement for reasonable out-of-pocket expenses incurred for attending meetings of the Catalyst board of directors or any committees thereof.

In April 2012, Catalyst entered into an agreement with Dr. Selick providing for compensation of $15,000 on an annual basis for serving in his role as an independent director. Dr. Selick has also been awarded options to purchase shares of Catalyst's common stock, at an exercise price equal to the fair market value of Catalyst's common stock at the time of grant, including options with respect to 50,000 shares granted in August 2007 with

an exercise price of $0.07 per share, options with respect to 30,000 shares granted in March 2009 with an exercise price of $0.28 per share and options with respect to 77,652 shares granted in May 2010 with an exercise price of $0.40 per share, all of which have fully vested.

Targacept's director compensation for the fiscal year ended December 31, 2014 is set forth under the section titled "Targacept Executive Compensation—Compensation of Directors" beginning on page 148. It is currently expected that Catalyst's and Targacept's non-employee director cash and equity compensation policies set forth above will be reviewed by the combined company following completion of the merger and may be subject to change. In this regard, following the completion of the merger, it is expected that the combined company will provide compensation to non-employee directors that is in line with Targacept's current practices.

Compensation Committee Interlocks and Insider Participation

None of the directors who served on Targacept's Compensation Committee during 2014 was an officer within the meaning of Rule 3b-2 under the Exchange Act or an employee of Targacept during or prior to fiscal year 2014 or had any relationship during fiscal year 2014 that would require disclosure pursuant to Item 404 of Regulation S-K. None of Targacept's executive officers served during fiscal year 2014 as members of the Targacept board of directors or compensation committee, or any other committee serving an equivalent function, of any entity that has an executive officer who serves of the board of directors of Targacept or its Compensation Committee.

In addition, none of the proposed combined company's executive officers serve as a member of the board of directors or compensation committee of any entity that has one or more executive officers who is proposed to serve on the combined company's board of directors following the completion of the merger.

Executive Compensation

Catalyst's executive officers for the year ended December 31, 2014 and who will serve as executive officers of the combined company following the merger are referred to herein as the "named executive officers." The named executive officers and their current positions are as follows:

- Nassim Usman, Ph.D., President and Chief Executive Officer; and
- Edwin L. Madison, Ph.D., Chief Scientific Officer.

Fletcher Payne, Catalyst's Chief Financial Officer, entered into an employment agreement with Catalyst on April 1, 2015 under which he became a full-time employee. Mr. Payne has served as Catalyst's Chief Financial Officer since January 2015, working as a consultant through Danforth Advisors, LLC. Mr. Payne will also serve as an executive officer of the combined company following the merger.

Summary Compensation Table

The following table provides information regarding the named executive officers of Catalyst during the fiscal year ended December 31, 2014. For the management of the combined company after the closing of the merger, see "Management Following the Merger—Executive Officers and Directors—Executive Officers and Directors of the Combined Company Following the Merger" beginning on page 272.

Name and Principal Position	Fiscal Year	Salary	Bonus	Option Awards (1)	All Other Compensation(2)	Total
Nassim Usman, Ph.D.	2014	$400,000	$50,000	$ —	$ 2,193	$452,193
President and Chief Executive Officer	2013	$400,000	$ —	$331,446	$ 4,279	$735,725
Edwin L. Madison, Ph.D.	2014	$325,000	$25,000	$ —	$ —	$350,000
Chief Scientific Officer	2013	$325,000	$ —	$165,723	$ —	$490,723

(1) Reflects the aggregate grant date fair value of stock options granted to Catalyst's named executive officers estimated pursuant to FASB ASC 718, *Compensation—Share based compensation* (ASC 718). Valuation assumptions are described in Note 4 of Catalyst's accompanying audited financial statements.

(2) This column includes payment of life insurance premiums, long-term disability and other insurance—related reimbursements.

Base Salary

In 2014, Catalyst's compensation committee and board of directors determined that base salaries of executive management would remain at the same level as their 2013 base salaries, resulting in an annual base salary of $400,000 for Dr. Usman and $325,000 for Dr. Madison.

Annual Bonuses

Catalyst's board of directors may, in its discretion, award an annual performance-based bonus to its executive officers on a case-by-case basis. These awards are structured to reward named executive officers for the successful performance of Catalyst as a whole and of each participating named executive officer as an individual. In recent years, including the fiscal years ended December 31, 2013 and December 31, 2014, bonuses have been awarded on an entirely discretionary basis. For Dr. Madison, Catalyst's compensation committee and Dr. Usman reviews Dr. Madison based on the attainment of corporate objectives to determine whether and in what amount he will receive a bonus for the fiscal year, and the compensation committee makes a recommendation to the board of directors. For Dr. Usman, the compensation committee determines whether and in what amount he will receive a bonus for the fiscal year, based on the attainment of corporate objectives and makes a recommendation to the board of directors. The board of directors makes a final determination of all bonus awards. Each of Drs. Usman and Madison received bonuses in 2014. Dr. Usman was awarded a bonus of $50,000, and Dr. Madison was awarded a bonus of $25,000.

Stock Option Awards

Catalyst's compensation committee and the board of directors elected not to grant stock award options to any of Catalyst's named executive officers in 2014 or 2013.

Outstanding Equity Awards at Fiscal Year-End

The following table presents the outstanding equity awards held by each of the named executive officers as of December 31, 2014 for Catalyst's named executive officers. There were no unvested stock awards as of December 31, 2014. None of the named executive officers of Catalyst exercised options to purchase Catalyst common stock in 2014.

Name	Number of securities underlying unexercised options exercisable	Number of securities underlying unexercised options unexercisable(1)	Option Exercise price	Option Expiration date
Nassim Usman, Ph.D.	230,000	—	$ 0.36	4/9/2018
	1,599,969	—	0.28	3/16/2019
	294,619	294,620	0.44	1/2/2023
Edwin L. Madison, Ph.D.	100,000	—	0.36	4/9/2018
	701,827	—	0.28	3/16/2019
	170,203	—	0.40	2/5/2020
	147,309	147,310	0.44	1/2/2023

(1) The remaining portion of these options to purchase common stock vest at the rate of 1/48th of the number of total shares subject to the option on the 5th day of each month, with the final tranche vesting on December 5, 2016. The options will also vest in full upon a change in control or determination by the board of directors to wind-down material business operations of the company.

Upon completion of the merger, all of the above options will be converted into options to purchase common stock of Targacept, with the number of shares and exercise price being appropriately adjusted to reflect the Exchange Ratio in the merger. See "The Merger—Stock Options and Warrants" beginning on page 96.

Employment Agreements

Catalyst has entered into employment offer letters with each of its named executive officers described below, and standard confidential information and/or inventions assignment agreements, under which each of its named executive officers has agreed not to disclose Catalyst's confidential information.

Nassim Usman, Ph.D.

Effective as of February 13, 2006 Catalyst entered into an offer letter with Dr. Nassim Usman, its President and Chief Executive Officer. Under this letter agreement, Dr. Usman is entitled to an annual base salary, which is currently $400,000, and is eligible for Catalyst's benefits program, including life and disability insurance, medical, dental and vision, and a 401K and Flex Spending account. In addition, in accordance with the terms of the letter agreement, Catalyst's board of directors awarded Dr. Usman a stock option grant to purchase 1,152,309 shares of Catalyst's common stock at an exercise price per share equal to fair market value on the date of grant, which fully vested on February 13, 2010, and an option grant to purchase 421,782 shares of common stock issued by Catalyst in connection with its issuance of Series B convertible preferred stock, which fully vested on February 13, 2010.

The letter agreement provides that either party may terminate the agreement for any reason or no reason. In addition, the agreement provides that if Catalyst terminates Dr. Usman's employment for "cause" (as defined in the agreement) or "constructively terminates" (as defined in the agreement) his employment (whether or not in connection with a change of control), Dr. Usman will be eligible to receive the following:

- severance payments, equal to the rate of base salary he was receiving at the time of such termination for a period of 12 months; and
- accelerated vesting of the number of shares of common stock subject to options he holds that would otherwise have vested as of the date 12 months after the effective date of his termination.

If a "change of control" (defined in Dr. Usman's agreement as either (1) an acquisition of Catalyst by another entity, unless at least 50% of the voting power of the surviving or acquiring entity is owned immediately after the transaction by Catalyst stockholders, or (2) a sale of all or substantially all of Catalyst's assets) occurs and at any time during the 12-month period following such change of control Dr. Usman is terminated without "cause" or as a result of a "constructive termination," then in addition to the benefits set forth in the preceding paragraph, all of the common stock options that he holds will be fully vested.

Edwin L. Madison, Ph.D.

Effective as of November 28, 2003, Catalyst entered into an offer letter, which has been amended from time to time, with Dr. Edwin L. Madison, its Chief Scientific Officer. Under this letter agreement, Dr. Madison is entitled to an annual base salary, which is currently $325,000, and is eligible for Catalyst's benefits program on the same terms as other executives. In addition, in accordance with the terms of the offer letter, Catalyst's board of directors awarded Dr. Madison a stock option grant to purchase 180,000 shares of Catalyst's common stock at an exercise price per share equal to fair market value on the date of grant, which fully vested on December 1, 2007.

The letter agreement, as amended, provides that either party may terminate the agreement for any reason or no reason. In addition, the agreement provides that if Catalyst terminates Dr. Madison's employment for "cause" (as defined in the agreement) or "constructively terminates" (as defined in the agreement) his employment (whether or not in connection with a change of control), Dr. Madison will be eligible to receive the following:

- severance payments, equal to the rate of base salary he was receiving at the time of such termination for a period of 12 months;
- the number of shares of common stock subject to options he holds that would otherwise have vested as of the date 12 months after the effective date of his termination; and
- any repurchase right of Catalyst with respect to shares of common stock he holds will lapse with respect to the number of shares for which the right would have lapsed during the 12-month period following the effective date of his termination had he remained employed.

If a "change of control" (defined in Dr. Madison's agreement as either (1) an acquisition of Catalyst by another entity, unless at least 50% of the voting power of the surviving or acquiring entity is owned immediately after the transaction by Catalyst stockholders, or (2) a sale of all or substantially all of Catalyst's assets) occurs and at any time during the 12-month period following such change of control Dr. Madison is terminated without "cause" or as a result of a "constructive termination," then in addition to the benefits set forth in the preceding paragraph, all of Dr. Madison's options will become fully vested and any repurchase rights on shares of common stock he holds will lapse.

Fletcher Payne

Effective as of March 31, 2015 Catalyst entered into an offer letter with Fletcher Payne, its Chief Financial Officer. Under this letter agreement, Mr. Payne is entitled to an annual base salary, which is currently $300,000, and is eligible for Catalyst's benefits program, including life and disability insurance, medical, dental and vision, and 401K plans. In addition, in accordance with the terms of the letter agreement, Catalyst's board of directors awarded Mr. Payne a stock option grant to purchase 375,000 shares of Catalyst's common stock at an exercise price per share equal to fair market value on the date of grant, the option will be subject to four year monthly vesting, beginning on April 1, 2015.

The letter agreement provides that either party may terminate the agreement for any reason or no reason. In addition, the agreement provides that if Catalyst terminates Mr. Payne's employment without "cause" (as defined in the agreement) or "constructively terminates" (as defined in the agreement) his employment (whether or not in connection with a change of control), Mr. Payne will be eligible to receive the following:

- severance payments, equal to the rate of base salary he was receiving at the time of such termination for a period of 6 months; and
- accelerated vesting of the number of shares of common stock subject to options he holds that would otherwise have vested as of the date 6 months after the effective date of his termination.

Compensation Risk Management

Catalyst has considered the risk associated with its compensation policies and practices for all employees and believes it has designed its compensation policies and practices in a manner that does not create incentives that could lead to excessive risk taking that would have a material adverse effect on Catalyst.

Employment Benefits Plan

Catalyst 2004 Stock Plan

In order to attract and retain the best available personnel for positions of responsibility, Catalyst's board of directors adopted and its stockholders approved the 2004 Stock Plan (the "Catalyst Plan"), under which Catalyst's named executive officers' outstanding stock options were granted. No further grants may be made

under the Catalyst Plan, but outstanding stock options that were granted under the Catalyst Plan, including the named executive officers' stock options, are subject to its terms and will remain so before and after the merger, subject to adjustments to reflect that the options will be converted into options to purchase shares of Targacept common stock and to reflect the Exchange Ratio in the merger. Under the Catalyst Plan, in the event that any dividend or other distribution, recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, or similar transaction affecting Catalyst's shares occurs, the Catalyst Plan's administrator, in order to prevent diminution or enlargement of the benefits or potential benefits intended to be made available under the Catalyst Plan, may adjust the number, class, and price of shares covered by each outstanding option.

Pursuant to the Merger Agreement, Targacept will assume all outstanding and unexercised options to purchase shares of Catalyst common stock, and such options will be converted into options to purchase Targacept common stock, with the number of shares and exercise price being appropriately adjusted pursuant to this provision to reflect the Exchange Ratio in the merger. For additional information regarding the treatment of Catalyst stock options in the merger, please see the section entitled "The Merger Agreement—Catalyst Stock Options and Catalyst Warrants" beginning on page 130.

The Catalyst Plan also provides that in the event of a merger with or into another corporation, or a change in control, each outstanding option will be assumed or an equivalent option substituted by the successor corporation or a parent or subsidiary of the successor corporation. In the event that the successor corporation in a merger or change in control refuses to assume or substitute for the option, then the Catalyst Plan's administrator may determine that the options will fully vest. For purposes of the Catalyst Plan, a change of control occurs when (i) any person or entity becomes the beneficial owner, directly or indirectly, of fifty percent or more of the total voting power represented by the company's then outstanding voting securities, (ii) the consummation of the sale or disposition of all or substantially all of the company's assets, or (iii) the consummation of a merger or consolidation, other than a merger or consolidation after which the company's stockholders continue to own (either by remaining outstanding or by being converted into voting securities of the surviving entity or its parent) at least fifty percent of the total voting power represented by the voting securities of the company or such surviving entity or its parent outstanding immediately after such merger or consolidation. The merger will not constitute a change in control for purposes of the Catalyst Plan, but the change in control provisions could be triggered by a subsequent transaction.

Other Benefits

Executive officers are eligible to participate in all of Catalyst's employee benefit plans, including life and disability insurance, medical, dental, and vision, a 401(k) retirement plan, and a flex spending account plan. Catalyst also provides vacation and other paid-time-off benefits to all similarly situated employees.

RELATED PARTY TRANSACTIONS OF COMBINED COMPANY

Described below are the transactions and series of similar transactions since January 1, 2014 in which:

- the amounts involved exceeded or will exceed $120,000; and
- any of the directors, executive officers, holders of more than 5% of capital stock (sometimes refer to as 5% stockholders below) of the combined company or any member of their immediate family had or will have a direct or indirect material interest.

Targacept's Transactions

Indemnification Agreements

Targacept has entered into indemnification agreements with each of its directors and with each member of its executive management committee. Pursuant to the indemnification agreements, Targacept has agreed to indemnify and hold harmless these directors and officers to the fullest extent permitted by the Delaware General Corporation Law. The agreements generally cover expenses that a director or officer incurs or amounts that a director or officer becomes obligated to pay because of any proceeding to which he or she is made or threatened to be made a party or participant by reason of his or her service as a current or former director, officer, employee or agent of Targacept. The agreements also provide for the advancement of expenses to the directors and officers subject to specified conditions. There are certain exceptions to Targacept's obligation to indemnify the directors and officers, including any intentional malfeasance or act where the director or officer did not in good faith believe he or she was acting in Targacept's best interests, with respect to "short-swing" profit claims under Section 16(b) of the 1934 Act and, with certain exceptions, with respect to proceedings that he or she initiates.

Change of Control and Severance Benefits Agreements

See "The Merger—Golden Parachute Compensation" beginning on page 88 for a description of these agreements.

Policies and Procedures Regarding Related Party Transactions

Targacept's board of directors has adopted a written policy pursuant to which each actual or proposed financial transaction, arrangement or relationship (including any indebtedness or guarantee of indebtedness) or series of similar financial transactions, arrangements or relationships, other than specified employment and compensatory matters, in which (i) Targacept was or would be a participant, (ii) the amount involved exceeds $120,000 and (iii) a "related person" (as defined under Item 404 of Regulation S-K) has a direct or indirect material interest, is submitted to the Audit Committee for its review and approval or, if applicable, ratification. These transactions, arrangements or relationships are known as "related person transactions."

Under the policy, Targacept's Chief Financial Officer and General Counsel consult with regard to any proposed transaction, arrangement or relationship that is identified as a possible related person transaction. If they determine Targacept desires to proceed with the proposed transaction, arrangement or relationship and the General Counsel determines, based on available information, that the proposed transaction may constitute a related person transaction, it is submitted to the Audit Committee for its consideration. The Audit Committee is to consider all available relevant facts and circumstances, including the benefits to Targacept, the impact on a director's independence in the event the related person is a director (or a family member or entity affiliated with a director), the availability of other sources for comparable products or services, the proposed terms and the terms available to or from parties that are not related persons. Absent special circumstances, the Audit Committee may approve only those related person transactions that it determines to be in or not contrary to the best interests of Targacept and its stockholders. No member of the Audit Committee may participate in any review, consideration or approval of any related person transaction with respect to which the member or any of his or her immediate family members is the related person.

Catalyst Transactions

Affiliations with 5% Stockholders

Dr. Himawan is a member of Catalyst's board of directors and a manager of Essex Woodlands Health Ventures VIII, LLC, which is affiliated with Essex Woodlands Health Ventures Fund VIII, L.P., Essex Woodlands Health Ventures Fund VIII-A, L.P. and Essex Woodlands Health Ventures Fund VIII-B, L.P. (each an "Essex Entity" and collectively, the "Essex Entities"). Together, the Essex Entities hold more than 5% of Catalyst's outstanding capital stock.

Mr. Lawlor is a member of Catalyst's board of directors and a managing director of HealthCare Partners VIII, LLC, which is affiliated with HealthCare Ventures VIII, L.P. HealthCare Ventures VIII, L.P. holds more than 5% of Catalyst's outstanding capital stock.

Each of Morgenthaler Partners VIII, L.P., Sofinnova Venture Partners VI, L.P., Johnson & Johnson Innovation-JJDC, Inc. (formerly known as Johnson & Johnson Development Corporation) and Rosetta Capital V GP Limited on behalf of Rosetta Capital V LP holds more than 5% of Catalyst's outstanding capital stock.

Issuance of Series E Convertible Preferred Stock

In April 2014, Catalyst issued and sold in a closing an aggregate of 3,935,140 shares of Series E convertible preferred stock at a price per share of $1.2706, together with warrants to purchase an aggregate of 983,778 shares of Series E convertible preferred stock at an exercise price per share of $1.2706, for an aggregate consideration of approximately $5.0 million. The table below sets forth the number of shares of Series E convertible preferred stock purchased, the number of shares of Series E convertible preferred stock exercisable under the warrants purchased, and the purchase prices for the shares of Series E convertible preferred stock and warrants to purchase shares of Series E convertible preferred stock for each purchaser that is a director, executive officer or 5% stockholders, and their affiliates. It is anticipated that prior to the completion of the merger, each outstanding share of Catalyst's Series E convertible preferred stock will convert into one share of Catalyst common stock, and warrants to purchase shares of Series E convertible preferred stock will be exchanged for warrants, following the completion of the merger, to purchase shares of common stock of Targacept.

Name of Purchaser	Shares of Series E Convertible Preferred Stock (#)	Purchase Price ($)	Warrant Shares Issuable (#)	Warrant Purchase Price ($)
Essex Woodlands Health Ventures Fund VIII, L.P.(1)	320,960	$407,811.78	80,240	$802.40
Essex Woodlands Health Ventures Fund VIII-A, L.P.(1)	23,143	$ 29,405.50	5,785	$ 57.85
Essex Woodlands Health Ventures Fund VIII-B, L.P.(1)	10,060	$ 12,782.24	2,515	$ 25.15
Johnson & Johnson Innovation-JJDC, Inc.(2)	196,757	$249,999.45	49,189	$491.89
Morgenthaler Partners VIII, L.P.(3)	192,080	$244,056.85	48,020	$480.20
HealthCare Ventures VIII, L.P.(4)	236,108	$299,998.83	59,027	$590.27
Rosetta Capital V GP Limited on behalf of Rosetta Capital V LP(5)	102,674	$130,457.59	25,668	$256.68
Sofinnova Venture Partners VI, L.P.(6)	39,351	$ 49,999.39	9,837	$ 98.37
Nassim Usman, Ph.D., and Susan L. Usman, Trustees of the Usman Family Trust(7)	3,046	$ 3,870.25	761	$ 7.61
Harold E. Selick, Ph.D.(8)	30,131	$ 38,284.45	7,532	$ 75.32
Edwin L. Madison, Ph.D.(9)	3,046	$ 3,870.25	761	$ 7.61

(1) Together, the Essex Entities hold more than 5% of Catalyst's outstanding capital stock. Dr. Himawan is a member of Catalyst's board of directors and a manager of Essex Woodlands Health Ventures VIII, LLC, which is affiliated with the Essex Entities.

(2) Johnson & Johnson Innovation-JJDC, Inc. holds more than 5% of Catalyst's outstanding capital stock.
(3) Morgenthaler Partners VIII, L.P. holds more than 5% of Catalyst's outstanding capital stock.
(4) HealthCare Ventures VIII, L.P. hold more than 5% of Catalyst's outstanding capital stock. Mr. Lawlor is a member of Catalyst's board of directors and a managing director of HealthCare Partners VIII, LLC, which is affiliated with HealthCare Ventures VIII, L.P.
(5) Rosetta Capital V GP Limited on behalf of Rosetta Capital V LP holds more than 5% of Catalyst's outstanding capital stock.
(6) Sofinnova Venture Partners VI, L.P. holds more than 5% of Catalyst's outstanding capital stock.
(7) Nassim Usman, Ph.D. and Susan L. Usman, Trustees of the Usman Family Trust is affiliated with Dr. Usman, a member of Catalyst's board of directors and Catalyst's President and Chief Executive Officer.
(8) Dr. Selick is a member of Catalyst's board of directors.
(9) Dr. Madison is Catalyst's Chief Scientific Officer.

Issuance of Series F Convertible Preferred Stock

In January 2015, Catalyst issued and sold in two closings an aggregate of 2,623,650 shares of Series F convertible preferred stock at a price per share of $1.2706, for an aggregate consideration of approximately $3.33 million. The table below sets forth the number of shares of Series F convertible preferred stock purchased and purchase price for each purchaser that is a director, executive officer or 5% stockholders, and their affiliates. It is anticipated that prior to the completion of the merger, each outstanding share of Catalyst's Series F convertible preferred stock will convert into ten shares of Catalyst common stock.

Name of Purchaser	Shares of Series F Preferred Stock (#)	Purchase Price ($)
Essex Woodlands Health Ventures Fund VIII, L.P.(1)	427,947	$ 543,749.46
Essex Woodlands Health Ventures Fund VIII-A, L.P.(1)	30,855	$ 39,204.37
Essex Woodlands Health Ventures Fund VIII-B, L.P.(1)	13,415	$ 17,045.10
Johnson & Johnson Innovation-JJDC, Inc.(2)	472,217	$ 599,998.93
Morgenthaler Partners VIII, L.P.(3)	314,811	$ 399,998.86
HealthCare Ventures VIII, L.P.(4)	472,217	$ 599,998.93
Rosetta Capital V GP Limited on behalf of Rosetta Capital V LP(5)	472,217	$ 599,998.93
Sofinnova Venture Partners VI, L.P.(6)	259,719	$ 329,998.97
Equity Trust Company Custodian FBO Nassim Usman IRA(7)	35,416	$ 44,999.57
Harold E. Selick, Ph.D.(8)	31,481	$ 39,999.76
Edwin L. Madison, Ph.D.(9)	7,870	9,999.63
Charles Payne and Nancy Payne 2000 Trust U/A Dtd 03/09/2000(10)	39,351	$ 49,999.38

(1) Together, the Essex Entities hold more than 5% of Catalyst's outstanding capital stock. Dr. Himawan is a member of Catalyst's board of directors and a manager of Essex Woodlands Health Ventures VIII, LLC, which is affiliated with the Essex Entities.
(2) Johnson & Johnson Innovation-JJDC, Inc. holds more than 5% of Catalyst's outstanding capital stock.
(3) Morgenthaler Partners VIII, L.P. holds more than 5% of Catalyst's outstanding capital stock.
(4) HealthCare Ventures VIII, L.P. hold more than 5% of Catalyst's outstanding capital stock. Mr. Lawlor is a member of Catalyst's board of directors and a managing director of HealthCare Partners VIII, LLC, which is affiliated with HealthCare Ventures VIII, L.P.
(5) Rosetta Capital V GP Limited on behalf of Rosetta Capital V LP holds more than 5% of Catalyst's outstanding capital stock.
(6) Sofinnova Venture Partners VI, L.P. holds more than 5% of Catalyst's outstanding capital stock.
(7) Nassim Usman, Ph.D. and Susan L. Usman, Trustees of the Usman Family Trust is affiliated with Dr. Usman, a member of Catalyst's board of directors and Catalyst's President and Chief Executive Officer.
(8) Dr. Selick is a member of Catalyst's board of directors.
(9) Dr. Madison is Catalyst's Chief Scientific Officer.
(10) Charles Payne and Nancy Payne 2000 Trust U/A Dtd 03/09/2000 is affiliated with Mr. Payne, Catalyst's Chief Financial Officer.

Convertible Promissory Notes

In May and June 2015, Catalyst issued and sold convertible promissory notes in a series of closings in the aggregate principal amount of $1.9 million to existing stockholders, together with warrants to purchase shares of Catalyst's capital stock. The convertible promissory notes accrue interest at a rate of 12% per annum and will mature one year from the date of issuance. If Catalyst, prior to the payment in full of the convertible promissory notes, issues and sells shares of preferred stock or common stock in a single transaction or series of related transactions for aggregate cash proceeds to Catalyst of at least $3.0 million (excluding any amount invested by cancellation of the indebtedness represented by the convertible promissory notes), the outstanding principal amount and unpaid accrued interest of the convertible promissory notes will be automatically converted into shares of the securities sold in such financing at a conversion price equal to the price per share paid by investors for such securities in the financing. Alternatively, if Catalyst, prior to the payment in full of the convertible promissory notes, issues and sells shares of preferred stock of an equity financing of preferred stock or common stock for aggregate cash proceeds to Catalyst of less than $3.0 million, the outstanding principal amount and unpaid accrued interest of the convertible promissory notes may be converted, at the option of the holder, into the same type of securities issued in such financing at a conversion price equal to the price per share paid by investors for such securities in the financing. In addition, at any time prior to repayment or conversion in full of the convertible promissory notes, the outstanding principal amount and unpaid accrued interest of the convertible promissory note may be converted, at the option of the holder, into shares of Series E convertible preferred stock at a conversion rate of $1.2706 per share.

In connection with the debt financing, Catalyst also issued and sold to each investor purchasing a convertible promissory note a warrant to purchase equity securities of the same type that the principal amount of the convertible promissory note issued to such investor converts into. The warrants are exercisable for up to a number of shares equal to the quotient of: (a) 25% multiplied by the principal amount of the convertible promissory note issued to such investor divided by (b) the stock purchase price equal to: (i) in the case the notes convert in connection with a financing the price per share of the securities paid by investors in such financing or (ii) in the case that the warrant shares are Series E convertible preferred stock, $1.2706. The purchase price for each warrant was equal to 0.1% of the principal amount of the corresponding convertible promissory note. The exercise price for the warrant shares is equal to the stock purchase price.

The table below sets forth, for each purchaser that is a director, executive officer or 5% stockholders, and their affiliates, the principal amounts for the convertible notes issued to such investors and the number of shares of Series E convertible preferred stock issuable upon full exercise of the warrants issued to such investor, assuming such investor elected to convert their outstanding promissory notes into shares of Series E convertible preferred stock prior to conversion in connection with a financing.

Name of Purchaser	Principal Amount ($)	Shares of Series E Convertible Preferred Stock Issuable Upon Exercise of Warrant Shares (#)
Essex Woodlands Health Ventures Fund VIII, L.P. (1)	$527,997.98	103,888
Essex Woodlands Health Ventures Fund VIII-A, L.P. (1)	$ 38,068.82	7,490
Essex Woodlands Health Ventures Fund VIII-B, L.P. (1)	$ 16,551.66	3,257
HealthCare Ventures VIII, L.P. (2)	$338,468.70	66,596
Morgenthaler Partners VIII, L.P. (3)	$224,065.31	44,087
Johnson & Johnson Innovation-JJDC, Inc. (formerly known as Johnson & Johnson Development Corporation) (4)	$305,967.34	60,201
Sofinnova Venture Partners VI, L.P. (5)	$127,214.72	25,030
Rosetta Capital V GP Limited on behalf of Rosetta Capital V LP (6)	$176,634.29	34,754

(1) Together, the Essex Entities hold more than 5% of Catalyst's outstanding capital stock. Jeff Himawan is a member of Catalyst's board of directors and a manager of Essex Woodlands Health Ventures VIII, LLC, which is affiliated with the Essex Entities.

(2) HealthCare Ventures VIII, L.P. hold more than 5% of Catalyst's outstanding capital stock. Gus Lawlor is a member of Catalyst's board of directors and a managing director of HealthCare Partners VIII, LLC, which is affiliated with HealthCare Ventures VIII, L.P.

(3) Morgenthaler Partners VIII, L.P. holds more than 5% of Catalyst's outstanding capital stock.
(4) Johnson & Johnson Innovation-JJDC, Inc. (formerly known as Johnson & Johnson Development Corporation) holds more than 5% of Catalyst's outstanding capital stock.
(5) Sofinnova Venture Partners VI, L.P. holds more than 5% of Catalyst's outstanding capital stock.
(6) Rosetta Capital V GP Limited on behalf of Rosetta Capital V LP holds more than 5% of Catalyst's outstanding capital stock.

Voting Agreements

In connection with the issuance of Catalyst's Series F convertible preferred stock in January 2015, Catalyst entered into an amended and restated voting agreement, with certain directors, executive officers and 5% stockholders, and their affiliates.

Catalyst has also entered into voting agreements in connection with the merger with certain directors, executive officers and 5% stockholders, and their affiliates. For a description of these voting agreements, see the section titled "Voting Agreements" beginning on page 137.

Investors' Rights Agreement

In connection with the issuance of Catalyst's Series F convertible preferred stock in January 2015, Catalyst entered into an amended and restated investors' rights agreement, including with certain directors, executive officers and 5% stockholders, and their affiliates, which provides that certain holders of common stock (including those issuable upon conversion of Catalyst's preferred stock and capital stock underlying warrants) have certain rights relating to the registration of shares of such common stock.

In addition to such registration rights, the amended and restated investors' rights agreement provides for certain information rights and pre-emptive rights. The amended and restated investors' rights agreement will terminate upon the completion of the merger.

Right of First Refusal and Co-Sale Agreement

In connection with the issuance of Catalyst's Series F convertible preferred stock in January 2015, Catalyst entered into an amended and restated right of first refusal and co-sale agreement, including with certain directors, executive officers and 5% stockholders, and their affiliates, which will terminate upon completion of the merger.

Director and Executive Officer Compensation

For information regarding the compensation of Catalyst's executive officers and certain directors, please see the section titled "Management Following the Merger—Executive Compensation" beginning on page 280.

Change of Control and Severance Benefit Agreements

See "The Merger—Interests of Catalyst Directors and Executive Officers in the Merger" beginning on page 92 for a description of these agreements.

Director and Officer Indemnification and Insurance

Catalyst has entered into indemnification agreements with each of its officers and directors and purchased directors' and officers' liability insurance. The indemnification agreements and bylaws of Catalyst require Catalyst to indemnify its directors and officers to the fullest extent permitted under Delaware law.

Policies and Procedures Regarding Related Party Transactions

While Catalyst does not have a formal written policy or procedure for the review, approval or ratification of related party transactions, Catalyst's board of directors reviews and considers the interests of its directors, executive officers and principal stockholders in its review and consideration of transactions and obtains the approval of non-interested directors when it determines that such approval is appropriate under the circumstances.

DESCRIPTION OF TARGACEPT CAPITAL STOCK

General

The following description of Targacept capital stock is not complete and may not contain all the information you should consider before investing in Targacept capital stock. This description is summarized from, and qualified in its entirety by reference to, the Targacept certificate of incorporation, which has been publicly filed with the SEC. See "Where You Can Find More Information" beginning on page 325.

Targacept authorized capital stock consists of:

- 100,000,000 shares of common stock, $0.001 par value; and
- 5,000,000 shares of preferred stock, $0.001 par value.

Common Stock

The holders of common stock are entitled to one vote per share on all matters to be voted upon by the stockholders and there are no cumulative rights. Subject to preferences that may be applicable to any outstanding preferred stock, the holders of common stock are entitled to receive ratably any dividends that may be declared from time to time by the Targacept board of directors out of funds legally available for that purpose. In the event of liquidation of Targacept, dissolution or winding up, the holders of common stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of preferred stock then outstanding. The common stock has no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. The outstanding shares of common stock are fully paid and non-assessable, and any shares of common stock to be issued upon an offering pursuant to this proxy statement/prospectus/information statement and the related prospectus supplement will be fully paid and non-assessable upon issuance.

Transfer Agent

The transfer agent and registrar for Targacept common stock is American Stock Transfer & Trust Company, LLC. Its address is 6201 15th Avenue, Brooklyn, NY 11219.

Dividend

Targacept has never paid cash dividends on its common stock, though it is proposing to pay a cash dividend as part of the Pre-Closing Dividend in connection with the merger. Apart from the cash dividend portion of the proposed Pre-Closing Dividend, Targacept does not anticipate paying periodic cash dividends on its common stock for the foreseeable future. Targacept intends to use all available cash and liquid assets to complete the merger, including certain dividends which may be paid after the completion of the merger, as described elsewhere in this proxy statement/prospectus/information statement, and in the operation and growth of its business. Any future determination about the payment of dividends will be made at the discretion of the Targacept board of directors and will depend upon its earnings, if any, capital requirements, operating and financial conditions and on such other factors as the board of directors deems relevant.

Preferred Stock

The following description of preferred stock and the description of the terms of any particular series of preferred stock that Targacept chooses to issue hereunder are not complete. These descriptions are qualified in their entirety by reference to the Targacept certificate of incorporation and the certificate of designation relating to that series. The rights, preferences, privileges and restrictions of the preferred stock of each series will be fixed by the certificate of designation relating to that series.

Targacept currently has no shares of preferred stock outstanding. The Targacept board of directors has the authority, without further action by the stockholders, to issue up to 5,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions granted to or imposed upon the preferred stock. Any or all of these rights may be greater than the rights of the common stock.

The Targacept board of directors, without stockholder approval, can issue preferred stock with voting, conversion or other rights that could negatively affect the voting power and other rights of the holders of common stock. Preferred stock could thus be issued quickly with terms calculated to delay or prevent a change in control of Targacept or make it more difficult to remove Targacept management. Additionally, the issuance of preferred stock may have the effect of decreasing the market price of Targacept's common stock.

The board of directors may specify the following characteristics of any preferred stock:

- the maximum number of shares;
- the designation of the shares;
- the annual dividend rate, if any, whether the dividend rate is fixed or variable, the date or dates on which dividends will accrue, the dividend payment dates, and whether dividends will be cumulative;
- the price and the terms and conditions for redemption, if any, including redemption at the option of Targacept or at the option of the holders, including the time period for redemption, and any accumulated dividends or premiums;
- the liquidation preference, if any, and any accumulated dividends upon the liquidation, dissolution or winding up of Targacept affairs;
- any sinking fund or similar provision, and, if so, the terms and provisions relating to the purpose and operation of the fund;
- the terms and conditions, if any, for conversion or exchange of shares of any other class or classes of Targacept capital stock or any series of any other class or classes, or of any other series of the same class, or any other securities or assets, including the price or the rate of conversion or exchange and the method, if any, of adjustment;
- the voting rights; and
- any or all other preferences and relative, participating, optional or other special rights, privileges or qualifications, limitations or restrictions.

Any preferred stock issued will be fully paid and non-assessable upon issuance.

Anti-Takeover Effects of Provisions of Targacept Charter Documents

The Targacept restated certificate of incorporation provides for the Targacept board of directors to be divided into three classes serving staggered terms. Approximately one-third of the Targacept board of directors will be elected each year. The provision for a classified board could prevent a party who acquires control of a majority of the outstanding voting stock from obtaining control of the board of directors until the second annual stockholders meeting following the date the acquirer obtains the controlling stock interest. The classified board provision could discourage a potential acquirer from making a tender offer or otherwise attempting to obtain control of Targacept and could increase the likelihood that incumbent directors will retain their positions. The Targacept restated certificate of incorporation provides that directors may be removed with or without cause by the affirmative vote of the holders of at least 66 2/3% of the voting power of all outstanding stock.

The Targacept restated certificate of incorporation requires that certain amendments of the Targacept certificate of incorporation and amendments by the stockholders of Targacept bylaws require the affirmative vote of at least 66 2/3% of the voting power of all outstanding stock. These provisions could discourage a potential acquirer from making a tender offer or otherwise attempting to obtain control of Targacept and could delay changes in management.

The Targacept amended and restated bylaws establish an advance notice procedure for stockholder proposals to be brought before a Targacept annual stockholders meeting, including proposed nominations of persons for election to the Targacept board of directors. At a Targacept annual stockholders meeting, stockholders may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of the Targacept board of directors. Stockholders may also consider a proposal or nomination by a person who was a stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has given to the Secretary of Targacept timely written notice, in proper form, of his or her intention to bring that business before the annual stockholders meeting. The amended and restated bylaws do not give the Targacept board of directors the power to approve or disapprove stockholder nominations of candidates or proposals regarding other business to be conducted at a special or annual meeting of the stockholders. However, the Targacept bylaws may have the effect of precluding the conduct of business at a meeting if the proper procedures are not followed. These provisions may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of Targacept.

The Targacept amended and restated bylaws provide that only the Targacept board of directors, the chairperson of the board, the President or the Chief Executive Officer may call a special meeting of stockholders. Because Targacept stockholders do not have the right to call a special meeting, a stockholder could not force stockholder consideration of a proposal over the opposition of the Targacept board of directors by calling a special meeting of stockholders prior to such time as a majority of the Targacept board of directors, the chairperson of the board, the President or the Chief Executive Officer believed the matter should be considered or until the next annual meeting provided that the requestor met the notice requirements. The restriction on the ability of stockholders to call a special meeting means that a proposal to replace the board also could be delayed until the next Targacept annual stockholders meeting.

The Targacept restated certificate of incorporation does not allow stockholders to act by written consent without a meeting. Without the availability of stockholder's actions by written consent, a holder controlling a majority of the Targacept capital stock would not be able to amend Targacept bylaws or remove directors without holding a stockholders' meeting.

Anti-Takeover Effects of Delaware Law

Targacept is subject to the provisions of Section 203 of the DGCL, or Section 203. Under Section 203, Targacept would generally be prohibited from engaging in any business combination with any interested stockholder for a period of three years following the time that this stockholder became an interested stockholder unless:

- prior to this time, the Targacept board of directors approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding shares owned by persons who are directors and also officers, and by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- at or subsequent to such time, the business combination is approved by the Targacept board of directors and authorized at a special or annual stockholders meeting, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

Under Section 203, a "business combination" includes:

- any merger or consolidation involving the corporation and the interested stockholder;

- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder, subject to limited exceptions;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as an entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by such entity or person.

DESCRIPTION OF THE CONVERTIBLE NOTES

Targacept will issue the redeemable convertible notes, or the notes, under an indenture, or the indenture, between Targacept and American Stock Transfer & Trust Company, LLC as trustee, or the trustee. The following summarizes the material provisions of the notes and the indenture but does not purport to be complete and is qualified by reference to all the provisions of the notes and the indenture, including the definitions of certain terms used in those documents. We urge you to read the indenture and the form of certificate evidencing the notes in their entirety, because they, and not this description, define your rights as a holder of the notes. A copy of the Form of Notes and Indenture is attached as Annex G to this proxy statement/prospectus/information statement and is incorporated into this proxy statement/prospectus/information statement by reference.

General

Targacept will issue $37.0 million aggregate principal amount of notes. The notes will not bear interest. Targacept will settle conversions of notes by delivering shares of Targacept's common stock as described below under "—Conversion of Notes—Settlement upon Conversion." Targacept will settle redemptions of notes by paying cash as described below under "—Redemption of Notes." The notes will be issued only in minimum denominations of $1.00 and in integral multiples of $1.00 in excess thereof. The notes will mature on the thirty (30) month anniversary of the completion of the merger unless earlier converted or redeemed. An amount equal to the principal amount of the notes will be deposited with an escrow agent for payment upon redemption of the notes or at maturity, or the Escrow Funds.

The notes will be Targacept's unsecured obligations and will rank *pari passu* with all of Targacept's other future unsecured debt. In addition, the notes are effectively subordinated to all of Targacept's existing and future secured debt to the extent of the collateral securing that debt, except with respect to Escrow Funds. Further, the notes are not guaranteed by Targacept's subsidiaries and will be structurally subordinated to all existing and future debt and other obligations of Targacept's subsidiaries.

Neither Targacept nor its subsidiaries are restricted from paying dividends, incurring debt or issuing or repurchasing Targacept's securities under the indenture. However, Targacept is restricted from permitting any liens to exist on the Escrow Funds. In addition, there are no financial covenants in the indenture. You are not protected by the indenture in the event of a highly leveraged transaction, a change in control of Targacept or a termination in the trading of Targacept's common stock.

Conversion of Notes

General

Subject to the conditions described below, you may convert all or any portion of your notes in a minimum amount of $50,000 per conversion (or the entire principal amount of notes held, if less) into shares of Targacept's common stock at an initial conversion rate of 1 divided by $9.19, subject to adjustment, shares of Targacept's common stock per $1.00 aggregate principal amount of notes. The conversion rate and the corresponding conversion price will be subject to adjustment as described below under "—Conversion Rate Adjustments." Accordingly, an adjustment to the conversion rate will result in a corresponding (but inverse) adjustment to the conversion price. A holder may convert fewer than all of such holder's notes so long as the notes converted are in a minimum amount of $50,000 per conversion in an integral multiple of $1.00 principal amount (or the entire principal amount of notes held, if less).

Holders may surrender all or any portion of their notes for conversion at any time prior to the close of business on the final business day of each calendar month.

Targacept will settle conversions of notes by delivering shares of Targacept's common stock as described below under "—Conversion of Notes—Settlement upon Conversion." Targacept will settle redemptions of notes by paying cash as described below under "—Redemption of Notes." The notes will be issued only in minimum denominations of $1.00 and in integral multiples of $1.00 in excess thereof.

If a holder converts notes, Targacept will pay any documentary, stamp or similar issue or transfer tax due on the issuance of any shares of Targacept's common stock upon the conversion of the notes, unless the tax is due because the holder requests such shares to be issued in a name other than the holder's name, in which case the holder will pay the tax.

The transfer agent and registrar for Targacept's common stock is American Stock Transfer & Trust Company.

Settlement upon Conversion

Upon conversion Targacept will deliver shares of its common stock, as described below. Any fractional shares resulting from a conversion will be rounded down to the nearest whole share.

The settlement amounts upon conversion of the notes will be delivered by Targacept, through the conversion agent. This payment or delivery, as the case may be, will be made five business days after the conversion date, *provided*, *however*, that if prior to the conversion date for any converted notes Targacept's common stock has been replaced by reference property consisting solely of cash (pursuant to the provisions described below under "—Recapitalizations, Reclassifications and Changes to Targacept's Common Stock"), Targacept will pay the conversion consideration due in respect of conversion five business days immediately following the related conversion date. Holders will not have any rights with respect to common stock issuable upon conversion of notes until the conversion date with respect to the shares of common stock.

Each conversion will be deemed to have been effected immediately prior to the close of business on the conversion date; *provided*, *however*, that the person in whose name any shares of Targacept's common stock shall be issuable upon such conversion will become the holder of record of such shares as of the close of business on the conversion date.

Conversion Rate Adjustments

The conversion rate will be adjusted as described below:

(1) If Targacept issues solely shares of its common stock as a dividend or distribution on all or substantially all of its shares of common stock, or if Targacept subdivides or combines its common stock, the conversion rate will be adjusted based on the following formula:

$$CR = CR_0 \times \frac{OS}{OS_0}$$

where,

CR_0 = the conversion rate in effect immediately prior to the close of business on the record date (as defined below) for such dividend or distribution, or, if there is no record date, immediately prior to the effective date of such subdivision or combination of common stock;

CR = the new conversion rate in effect immediately after the close of business on the record date for such dividend or distribution, or, if there is no record date, immediately prior to the effective date of such subdivision or combination of common stock;

OS_0 = the number of shares of Targacept's common stock outstanding immediately prior to the close of business on the record date for such dividend or distribution, or, if there is no record date, immediately prior to the effective date of such subdivision or combination of common stock; and

OS = the number of shares of Targacept's common stock that would be outstanding immediately after giving effect to such dividend or distribution, or, if there is no record date, immediately after the effective date of such subdivision or combination of common stock.

Any adjustment made under this clause (1) will become effective immediately after the close of business on the record date for such dividend or distribution (regardless of whether the distribution date is scheduled to occur after the maturity date), or, if there is no record date, immediately after the open of business on the effective date of such subdivision or combination of common stock. If such dividend, distribution, subdivision or combination described in this clause (1) is declared but not so paid or made, the conversion rate shall be immediately readjusted, effective as of the date the Targacept board of directors or a duly authorized committee thereof determines not to pay such dividend or distribution or to effect such subdivision or combination, to the conversion rate that would then be in effect if such dividend or distribution had not been declared or subdivision or combination had not been announced.

(2) If Targacept makes a distribution to all or substantially all holders of its common stock of any rights, options or warrants entitling them for a period of not more than 45 calendar days from the record date for such distribution to subscribe for or purchase shares of Targacept's common stock, at a price per share less than the closing price of Targacept's common stock on the trading day immediately preceding the record date for such distribution, the conversion rate will be adjusted based on the following formula:

$$CR = CR_0 \times \frac{OS_0 + X}{OS_0 + Y}$$

where,

CR_0 = the conversion rate in effect immediately prior to the close of business on the record date for such distribution;

CR = the new conversion rate in effect immediately after the close of business on the record date for such distribution;

OS_0 = the number of shares of Targacept's common stock outstanding immediately prior to the close of business on the record date for such distribution;

X = the total number of shares of Targacept's common stock issuable pursuant to such rights, options or warrants; and

Y = the number of shares of Targacept's common stock equal to the aggregate price payable to exercise such rights, options or warrants *divided by* the average of the closing sale prices of Targacept's common stock over the 10 consecutive trading-day period ending on the record date.

Any adjustment made under this clause (2) will be made successively whenever any such rights, options or warrants are issued and will become effective immediately after the close of business on the record date for such distribution, regardless of whether the distribution date is scheduled to occur after the maturity date. To the extent that such rights, options or warrants expire prior to the maturity date and shares of common stock are not delivered after the expiration of such rights, options or warrants, the conversion rate shall be readjusted to the conversion rate that would then be in effect had adjustments to the distribution of such rights, options or warrants been made on the basis of delivery of only the number of shares of common stock actually delivered. If such rights, options or warrants were scheduled to be distributed prior to the maturity date and are not so distributed, the conversion rate shall be decreased to the conversion rate that would then be in effect if the distribution had not occurred.

For purposes of this clause (2) and for purposes of the first bullet under "—Conversion upon Specified Corporate Transactions—Conversion upon Certain Distributions," in determining whether any rights, options or warrants entitle the holders to subscribe for or purchase shares of Targacept's common stock at a price that is less than the average of the closing sale prices of its common stock for each trading day in the applicable 10 consecutive trading-day period, there shall be taken into account any consideration Targacept receives for such rights, options or warrants and any amount payable on exercise thereof, with the value of such consideration if other than cash to be determined in good faith by the Targacept board of directors or a duly authorized committee thereof.

(3) If Targacept, by dividend or otherwise, makes a distribution (the "relevant distribution") of shares of its capital stock, evidences of its indebtedness or other of its assets or property or rights, options or warrants to acquire its capital stock or other securities, to all or substantially all holders of its common stock (excluding (i) dividends or distributions and rights, options or warrants as to which an adjustment was effected under clause (1) or (2) above; (ii) dividends or distributions paid exclusively in cash; and (iii) spin-offs as defined below in this clause (3)), then the conversion rate will be increased based on the following formula:

$$CR = CR_0 \times \frac{SP_0}{SP_0 - FMV}$$

where,

CR_0 = the conversion rate in effect immediately prior to the close of business on the record date for such distribution;

CR = the conversion rate in effect immediately after the close of business on the record date for such distribution;

SP_0 = the average of the closing sale prices of Targacept's common stock over the 10 consecutive trading-day period ending on the record date for such distribution; and

FMV = the fair market value (as determined in good faith by the Targacept board of directors or a duly authorized committee thereof) of the shares of capital stock, evidences of indebtedness, assets or property or rights or warrants distributed with respect to each outstanding share of Targacept's common stock as of the open of business on the record date for such distribution.

Any adjustment made under the above portion of this clause (3) will become effective immediately after the close of business on the record date for such distribution. No adjustment pursuant to the above formula will result in a decrease of the conversion rate. However, if such distribution is scheduled to be paid or made prior to the maturity date and is not so paid or made, the conversion rate shall be adjusted to be the conversion rate that would then be in effect if such distribution had not been declared. Notwithstanding the foregoing, if "FMV" (as defined above) is equal to or greater than "SP_0" (as defined above), in lieu of the foregoing increase, each holder of a note shall receive, in respect of each $1.00 principal amount thereof, at the same time and upon the same terms as holders of Targacept's common stock, without having to convert its notes, the amount and kind of the relevant distribution that such holder would have received if such holder owned a number of shares of common stock equal to the conversion rate in effect on the record date for the distribution.

With respect to an adjustment pursuant to this clause (3) where there has been a payment of a dividend or other distribution on Targacept's common stock of shares of capital stock of any class or series, or similar equity interest, of or relating to a subsidiary or other business unit, that are, or, when issued, will be, listed or admitted for trading on a U.S. national securities exchange, referred to as a "spin-off," the conversion rate in effect immediately before the close of business on the 10th trading-day immediately following, and including, the effective date of the spin-off will be increased based on the following formula:

$$CR = CR_0 \times \frac{FMV + MP_0}{MP_0}$$

where,

CR_0 = the conversion rate in effect immediately prior to the close of business on the10th trading day immediately following the effective day of the spin-off;

CR = the new conversion rate in effect immediately after the close of business on the 10th trading day immediately following the effective day of the spin-off;

FMV = the average of the closing sale prices of the capital stock or similar equity interest distributed to holders of Targacept's common stock applicable to one share of its common stock (determined by reference to the definition of "closing sale price" set forth under "—Conversion upon Satisfaction of Market Price Condition" as if references therein to Targacept's common stock were to such capital stock or similar equity interest) over the first 10 consecutive trading day period immediately following, and including, the effective date of the spin-off (such period, the "valuation period"); and

MP_0 = the average of the closing sale prices of Targacept's common stock over the valuation period.

The adjustment to the conversion rate under the preceding paragraph of this clause (3) will occur on the 10th trading day after, and including, the effective date of the spin-off. If a conversion date for the spin-off is fewer than 10 trading days prior to, and including, the effective date of the spin-off, references within this clause (3) to 10 trading days shall be deemed to be replaced solely in respect of that conversion, with such lesser number of trading days as have elapsed from, and including, the record date of the spin-off, and including, the last trading day of such conversion period. In respect of any conversion during the valuation period for any spin-off, references within this clause (3) related to 10 trading days shall be deemed to be replaced with such lesser number of trading days as have elapsed from, and including, the record date for such spin-off to, but excluding, the relevant conversion date.

(4) If Targacept pays a dividend or makes a distribution entirely in cash to all, or substantially all, holders of Targacept's outstanding common stock (other than any dividend or distribution in connection with its liquidation, dissolution or winding up), the conversion rate will be adjusted based on the following formula:

$$CR = CR_0 \times \frac{SP_0}{SP_0 - C}$$

where,

CR_0 = the conversion rate in effect immediately prior to the record date for such distribution;

CR = the new conversion rate in effect immediately after the record date for such distribution;

SP_0 = the closing price of Targacept's common stock on the trading day immediately preceding the record date for such distribution; and

C = the amount in cash per share Targacept distributed to holders of Targacept's common stock in the distribution.

Any adjustment made under this clause (4) shall become effective immediately prior to the open of business on the record date for such dividend or distribution. No adjustment pursuant to the above formula will result in a decrease of the conversion rate. However, if any dividend or distribution described in this clause (4) is scheduled to be paid or made prior to the maturity date but is not so paid or made, the new conversion rate shall be readjusted to the conversion rate that would then be in effect if such dividend or distribution had not been declared.

Notwithstanding the foregoing, if "C" (as defined above) is equal to or greater than "SP_0" (as defined above), in lieu of the foregoing adjustment, each holder of a note shall receive, for each $1.00 principal amount of notes, at the same time and upon the same terms as holders of shares of Targacept's common stock, without having to convert its notes, the amount of cash that such holder would have received if such holder owned a number of shares of Targacept's common stock equal to the product of conversion rate on the record date for such cash dividend or distribution and the principal of the security.

(5) If Targacept or any of its subsidiaries makes a payment in respect of a tender or exchange offer for any portion of its common stock and, if the cash and value of any other consideration included in the payment per

share of common stock exceeds the closing price of Targacept's common stock on the trading day next succeeding the last date on which tenders or exchanges may be made pursuant to such tender or exchange offer (the "expiration date"), the conversion rate will be increased based on the following formula:

$$CR = CR_0 \times \frac{AC + (OS \times SP)}{OS_0 \times SP}$$

where,

CR_0 = the conversion rate in effect immediately prior to the close of business on the expiration date;

CR = the conversion rate in effect immediately after the close of business on the expiration date;

AC = the aggregate value of all cash and any other consideration (as determined in good faith by the Targacept board of directors or a duly authorized committee thereof) paid or payable for shares purchased in such tender or exchange offer;

OS_0 = the number of shares of Targacept's common stock outstanding immediately prior to the time (the "expiration time") such tender or exchange offer expires (prior to giving effect to such tender or exchange offer);

OS = the number of shares of Targacept's common stock outstanding immediately after the expiration time (after giving effect to such tender or exchange offer); and

SP = the average of the closing sale prices of Targacept's common stock over the 10 consecutive trading-day period commencing on, and including, the trading day next succeeding the expiration date.

The adjustment to the conversion rate under the preceding paragraph of this clause (5) will be determined at the close of business on the tenth trading day immediately following, but excluding, the expiration date but will be given effect at the open of business on the trading day next succeeding the expiration date. If the trading day next succeeding the expiration date is less than 10 trading days prior to, and including, the end of the conversion period in respect of any conversion, references within this clause (5) to 10 trading days shall be deemed to be replaced solely in respect of that conversion, with such lesser number of trading days as have elapsed from, and including, the trading day next succeeding the expiration date to, and including, the last trading day of such conversion period. In respect of any conversion during the 10 trading days commencing on the trading day next succeeding the expiration date, references within this clause (5) to 10 trading days shall be deemed to be replaced with such lesser number of trading days as have elapsed from, and including, the trading day next succeeding the expiration date to, but excluding, the relevant conversion date. No adjustment pursuant to the above formula will result in a decrease of the conversion rate. If Targacept or its subsidiary is obligated to purchase shares of common stock pursuant to any such tender or exchange offer, but Targacept or its subsidiary is permanently prevented by applicable law from effecting such purchases or all or any portion of such purchases are rescinded, then the conversion rate will be adjusted to be the conversion rate that would be in effect if such tender or exchange offer had not been made or had only been made in respect of the purchases that were effected.

As used in this section, "record date" means the date fixed for determination of the shareholders entitled to receive cash, securities or other property with respect to a dividend, distribution or other transaction or event in which holders of Targacept's common stock have the right to receive any cash securities or other property or in which the common stock is exchanged for or converted into any combination of cash, securities or other property.

To the extent that Targacept has a rights plan in effect upon conversion of the notes (*i.e.*, a poison pill), you will receive, in addition to any common stock received in connection with such conversion, the rights under the rights plan, unless prior to any conversion, the rights have separated from the common stock, in which case the conversion rate will be adjusted at the time of separation as if Targacept distributed to all holders of Targacept's

common stock, shares of Targacept's capital stock, evidences of indebtedness or other assets or property as described in clause (3) above, subject to readjustment in the event of the expiration, termination or redemption of such rights.

You may, in some circumstances, including the distribution of cash dividends to holders of shares of Targacept's common stock, be deemed to have received a distribution subject to U.S. federal income tax as a dividend as a result of an adjustment or the nonoccurrence of an adjustment to the conversion rate. Because this deemed distribution would not give rise to any cash from which any applicable withholding tax could be satisfied, if withholding taxes (including any backup withholding) are paid on behalf of a holder, those withholding taxes may be set off against payments of cash or common stock, if any, payable on the notes (or, in some circumstances, against any payments on Targacept's common stock). See "The Merger—Material U.S. Federal Income Tax Consequences of the Pre-Closing Dividend to Holders of Targacept Common Stock" beginning on page 101.

No adjustment to the conversion rate need be made for a given transaction if holders of the notes will participate in that transaction, without conversion of the notes, on the same terms and at the same time as a holder of a number of shares of common stock equal to the principal amount of a holder's notes *divided by* $1.00 and *multiplied by* the conversion rate would participate.

If Targacept adjusts the conversion rate pursuant to the above provisions, it will deliver to the conversion agent (with a copy to the trustee) a certificate setting forth the conversion rate, detailing the calculation of the conversion rate and describing the facts upon which the adjustment is based. In addition, Targacept will issue a press release containing the relevant information (and make the press release available on Targacept's website).

Recapitalizations, Reclassifications and Changes to Targacept's Common Stock

In the event of (a):

i. any recapitalization, reclassification or change of Targacept's common stock (other than changes resulting from a subdivision or combination);

ii. a consolidation, merger, combination, binding share exchange or similar transaction involving Targacept; or

iii. a sale, assignment, conveyance, transfer, lease or other disposition to another person of Targacept's property and assets as an entirety or substantially as an entirety;

in each case, in which holders of Targacept's outstanding common stock are entitled to receive cash, securities or other property for their shares of its common stock ("reference property" and any such transaction, a "share exchange event"), and (b) the equity securities of the surviving entity are registered with the U.S. Securities and Exchange Commission under the Exchange Act, then Targacept or its successor or purchasing person, as the case may be, and the trustee will execute a supplemental indenture providing that at and after the effective time of the share exchange event, holders of each note will be entitled thereafter to convert their notes into the kind and amount of shares of stock, other securities or other property or assets (including cash or any combination thereof) that a holder of a number of shares of common stock equal to the conversion rate immediately prior to the share exchange event would have owned or been entitled to receive upon the share exchange event. However, at and after the effective time of any such share exchange event, (i) any amount otherwise payable in cash upon redemption of the notes will continue to be payable in cash as described under the provision under "—Redemption of Notes," and (ii) any shares of Targacept's common stock that it would have been required to deliver upon conversion of the notes as set forth under "—Settlement upon Conversion" will instead be deliverable in the amount and type of reference property that a holder of that number of shares of Targacept's common stock would have received in such share exchange event. The supplemental indenture will also provide for anti-dilution and other adjustments that are as nearly equivalent as possible to the adjustments set described under "—Conversion Rate Adjustments" above. If the reference property in respect of any such share exchange event includes shares of stock, securities or other property or assets of a company other than the successor or

purchasing corporation, as the case may be, in such share exchange event, such other company will also execute such supplemental indenture, and such supplemental indenture will contain such additional provisions to protect the interests of the holders as the Targacept board of directors (or an authorized committee thereof) reasonably considers necessary by reason of the foregoing. If the notes become convertible into reference property, Targacept will notify the trustee and the conversion agent (if other than the trustee) in writing. Throughout this section ("—Conversion of Notes"), if Targacept's common stock has been replaced by reference property as a result of any share exchange event, references to Targacept's common stock are intended to refer to such reference property, subject to the provisions of the related supplemental indenture.

For purposes of the foregoing, the type and amount of consideration that a holder of common stock would have been entitled to receive in the case of any such share exchange event that causes the common stock to be converted into the right to receive more than a single type of consideration because the holders of Targacept's common stock have the right to elect the type of consideration they receive will be deemed to be the weighted average of the types and amounts of consideration received by the holders of common stock that affirmatively make such an election. If the holders receive only cash in such share exchange event, then for all conversions that occur after the effective date of such share exchange event (i) the consideration due upon conversion of each $50,000 principal amount of notes (or the entire principal amount of notes held, if less) shall be solely cash in an amount equal to the conversion rate, multiplied by the price paid per share of common stock in such share exchange event and (ii) Targacept will satisfy Targacept's conversion obligation by paying cash to converting holders on the fifth business day immediately following the conversion date. Targacept will notify in writing the trustee and the conversion agent (if other than the trustee) of the weighted average as soon as practicable after such determination is made. Targacept will agree in the indenture not to become a party to any share exchange event unless its terms are consistent with the foregoing.

Conversion Procedures

The right of conversion attaching to any note may be exercised (a) if such note is represented by a global security, by book-entry transfer to the conversion agent through the facilities of DTC and compliance with DTC's then applicable conversion procedures or (b) if such note is represented by a certificated security, by delivery of such note at the specified office of the conversion agent, accompanied by a duly signed and completed notice of conversion and appropriate endorsements and transfer documents if required by the conversion agent. Targacept will pay any documentary, stamp or similar issue or transfer tax on the issuance of any shares of Targacept's common stock upon conversion of the notes, unless the tax is due because the holder requests such shares to be issued in a name other than the holder's name, in which case the holder will pay the tax. Targacept refers to the date a holder complies with the relevant procedures for conversion described above as the "conversion date."

Cash Payment of Notes

Maturity of Notes

On the 30-month anniversary of the completion of the merger, Targacept will pay the principal amount of any note (as adjusted to account for any amount of notes that have been redeemed or converted) to its holder through the Paying Agent. All payments will be made in U.S. currency. The notes do not bear interest.

Redemption of Notes

Subject to the conditions described below, you may redeem all or a portion of your notes for cash, in increments of $50,000, or the full amount of such note in cases where the aggregate principal amount is less than $50,000 at any time prior to the 30-month anniversary of the completion of the merger. Holders may surrender their notes for redemption by delivering written notice to the redemption agent.

The right of redemption attaching to any note may be exercised (a) if such note is represented by a global security, by book-entry transfer to the redemption agent through the facilities of DTC and compliance with

DTC's then applicable redemption procedures or (b) if such note is represented by a certificated security, by delivery of such note at the specified office of the redemption agent, accompanied by a duly signed and completed notice of redemption and appropriate endorsements and transfer documents if required by the redemption agent. The date a holder complies with the relevant procedures for redemption described above is referred to as the "redemption date."

Escrow Agreement

Concurrent with the initial issuance of the notes, Targacept and an escrow agent will enter into the escrow agreement, and Targacept will deposit the Escrow Funds with the escrow agent. The Escrow Funds will be held in a segregated escrow account for the benefit of Targacept and the note holders in order to facilitate the payment of the notes upon redemption or at maturity.

Pursuant to the escrow agreement, the escrow agent will pay the principal amount of the notes from the Escrow Funds on or prior to their maturity. If a holder converts any of the notes before their maturity, the portion of the Escrow Funds corresponding to those notes will be returned to Targacept pursuant to the escrow agreement. If a holder redeems any of the notes before maturity, then the escrow agent will release the portion of the Escrow Funds corresponding to those notes to the trustee, and the trustee will pay the holder in satisfaction of such redemption.

The escrow agent is only required to perform the duties expressly set forth in the escrow agreement and will have no liability under or duty to inquire as to the provisions of any agreement beyond the escrow agreement. Targacept has agreed to indemnify the escrow agent and trustee from and against all reasonable, documented and out-of-pocket expenses, including disbursements, as well as claims arising out of the escrow agreement or the services it provides pursuant to the escrow agreement. Targacept will compensate the escrow agent for its services and will reimburse the escrow agent for all reasonable out-of-pocket expenses.

Events of Default

Each of the following will constitute an event of default under the indenture:

- Targacept fails to pay the principal of any note when due;
- Targacept fails to pay or deliver, as the case may be, the conversion obligation owing upon conversion of any note (including any additional shares) within 5 calendar days;
- Targacept fails to pay the redemption price of any note when due;
- the escrow agreement governing the Escrow Funds ceases to be in full force and effect or enforceable prior to its expiration in accordance with its terms;
- certain events of bankruptcy, insolvency or reorganization of Targacept or any of Targacept's subsidiaries that is a "significant subsidiary" (or any group of subsidiaries that, taken together, would constitute a "significant subsidiary" as defined in Regulation S-X under the Securities Act).

If an event of default, other than an event of default described in clause (v) above with respect to Targacept, occurs and is continuing, either the trustee or the holders of at least 51% in aggregate principal amount of the outstanding notes by written notice to Targacept (with a copy of such notice to the trustee if given by the holders) may declare the principal amount of the notes to be due and payable immediately. If an event of default described in clause (v) above occurs with respect to Targacept, the principal amount of the notes will automatically become immediately due and payable.

After any such acceleration, but before a judgment or decree based on acceleration, the holders of a majority in aggregate principal amount of the notes may, under certain circumstances, rescind and annul such acceleration if all events of default, other than the non-payment of accelerated principal, have been cured or waived.

The trustee will not be obligated to exercise any of its rights or powers at the request of the holders unless the holders have offered to the trustee indemnity or security satisfactory to the trustee against any loss, liability or expense. Subject to the indenture, applicable law and the trustee's indemnification, the holders of a majority in aggregate principal amount of the outstanding notes will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to the notes. The indenture will provide that in the event an event of default has occurred and is continuing, the trustee will be required in the exercise of its powers to use the degree of care that a prudent person would use in the conduct of its own affairs. The trustee, however, may refuse to follow any direction that conflicts with law or the indenture or that the trustee determines is unduly prejudicial to the rights of any other holder or that may involve the trustee in personal liability.

No holder will have any right to institute any proceeding under the indenture, or for the appointment of a receiver or a trustee, or for any other remedy under the indenture unless:

- the holder has previously given the trustee written notice of a continuing event of default;
- the holders of at least 51% in aggregate principal amount of the notes then outstanding have made a written request and have offered indemnity reasonably satisfactory to the trustee to institute such proceeding as trustee; and
- the trustee has failed to institute such proceeding within 60 days after such notice, request and offer and has not received from the holders of a majority in aggregate principal amount of the notes then outstanding a direction inconsistent with such request within 60 days after such notice, request and offer.

Generally, the holders of a majority of the aggregate principal amount of outstanding notes may waive any default or event of default unless:

- Targacept fails to pay the principal of any note when due;
- Targacept fails to pay or deliver the consideration due upon conversion of any note within the time period required by the indenture; or
- Targacept fails to comply with any of the provisions of the indenture that would require the consent of the holder of each outstanding note affected.

The indenture provides that if a default occurs and is continuing and is known to the trustee, the trustee must send to each holder notice of the default within 90 days after it occurs. Except in the case of a default in the payment of principal of any note or a default in the payment or delivery of the consideration due upon conversion, the trustee may withhold notice if and so long as the trustee in good faith determines that withholding notice is in the interests of the holders. In addition, Targacept is required to deliver to the trustee (i) within 120 days after the end of each fiscal year, a certificate indicating whether the signers thereof know of any default that occurred during the previous year and whether Targacept, to the officers' knowledge, are in default in the performance or observance of any of the terms, provisions and conditions of the indenture and (ii) within 30 days after the occurrence thereof, written notice of any events that would constitute defaults, their status and what action Targacept is taking or propose to take in respect thereof.

Each holder shall have the right to receive payment or delivery, as the case may be, of:

- the principal;
- the consideration due upon conversion; and
- the consideration due upon redemption of,

its notes, on or after the respective due dates expressed or provided for in the indenture, or to institute suit for the enforcement of any such payment or delivery, as the case may be, and such right to receive such payment or delivery, as the case may be, on or after such respective dates shall not be impaired or affected without the consent of such holder.

Modification and Waiver

Targacept and the trustee may amend or supplement the indenture with respect to the notes with the consent of the holders of a majority in aggregate principal amount of the outstanding notes. In addition, the holders of a majority in aggregate principal amount of the outstanding notes may waive Targacept's compliance in any instance with any provision of the indenture without notice to the other holders of notes. However, no amendment, supplement or waiver may be made without the consent of each holder of outstanding notes affected thereby if such amendment, supplement or waiver would:

- change the stated maturity of the principal of the notes;
- reduce the principal amount of on the notes;
- reduce the amount of principal payable upon acceleration of the maturity of the notes;
- change the currency of payment of principal of the notes or change any note's place of payment;
- impair the right of any holder to receive payment of principal of such holder's notes on or after the due dates therefor or to institute suit for the enforcement of any payment on, or with respect to, the notes;
- change the ranking of the notes;
- adversely affect the right of holders to convert notes;
- adversely affect the right of holders to redeem notes; or
- modify provisions with respect to modification, amendment or waiver (including waiver of events of default), except to increase the percentage required for modification, amendment or waiver or to provide for consent of each affected holder of notes.

Targacept and the trustee may amend or supplement the indenture or the notes without notice to, or the consent of, the holders of the notes to:

- cure any ambiguity, omission, defect or inconsistency;
- provide for the assumption by a successor corporation of Targacept's obligations under the indenture;
- add to Targacept's covenants for the benefit of the holders or surrender any right or power conferred upon Targacept;
- make any change that does not adversely affect the rights of any holder;
- upon the occurrence of a share exchange event, solely (i) provide that the notes are convertible into reference property, subject to "—Conversion Rights—Settlement upon Conversion" above, and (ii) effect the related changes to the terms of the notes described under "— Conversion Rights — Recapitalizations, Reclassifications and Changes of Targacept's Common Stock" above, in each case, in accordance with the applicable provisions of the indenture; or
- conform the provisions of the indenture to the "Description of Convertible Notes" section in the preliminary offering memorandum, as supplemented by the related pricing term sheet.

The consent of the holders is not necessary under the indenture to approve the particular form of any proposed amendment. It is sufficient if such consent approves the substance of the proposed amendment. After an amendment under the indenture becomes effective, Targacept is required to send to the holders (with a copy to the trustee) a notice briefly describing such amendment. However, the failure to give such notice to all the holders, or any defect in the notice, will not impair or affect the validity of the amendment.

Satisfaction and Discharge

Targacept may satisfy and discharge its obligations under the indenture by delivering to the trustee for cancellation all outstanding notes or depositing with the trustee or delivering to the holders, as applicable, after

all outstanding notes have become due and payable, whether at the stated maturity, at any redemption date or upon conversion (and determination of related settlement amounts) or otherwise, cash or cash and shares of Targacept's common stock, if any (in the case of conversion), sufficient to pay all of the outstanding notes and all other sums payable under the indenture by Targacept. Such discharge is subject to terms contained in the indenture.

Transfer, Exchange and Conversion

Targacept will maintain an office in the contiguous United States where the notes may be presented for registration of transfer, exchange or conversion. This office will initially be an office or agency of the trustee. No service charge will be imposed by Targacept, the trustee or the registrar for any registration of transfer or exchange of notes, but any tax or similar governmental charge required by law or permitted by the indenture because a holder requests any shares to be issued in a name other than such holder's name will be paid by such holder. Targacept is not required to transfer or exchange any note surrendered for purchase, redemption or conversion except for any portion of that note not being purchased, redeemed or converted, as the case may be.

Targacept reserves the right to:

- vary or terminate the appointment of the security registrar, paying agent or conversion agent;
- appoint additional paying agents or conversion agents; or
- approve any change in the office through which any security registrar or any paying agent or conversion agent acts.

Payment and Paying Agents

Payments in respect of the principal on global notes registered in the name of DTC or its nominee will be payable to DTC or its nominee, as the case may be, in its capacity as the registered holder under the indenture.

The trustee will be designated as Targacept's paying agent for payments on the notes. Targacept may at any time designate additional paying agents or rescind the designation of any paying agent or approve a change in the office through which any paying agent acts.

Subject to the requirements of any applicable abandoned property laws, the trustee and paying agent shall pay to Targacept upon written request any money held by them for payments on the notes that remain unclaimed for six months after the date upon which that payment has become due. After payment to Targacept, holders entitled to the money must look to Targacept for payment. In that case, all liability of the trustee or paying agent with respect to that money will cease.

Purchase and Cancellation

The registrar, paying agent and conversion agent (if other than the trustee) will forward to the trustee any notes surrendered to them by holders for transfer, exchange, payment, redemption or conversion. All notes delivered to the trustee shall be cancelled promptly by the trustee in the manner provided in the indenture and may not be reissued or resold. No notes shall be authenticated in exchange for any notes cancelled, except as provided in the indenture.

Targacept may, to the extent permitted by law, and directly or indirectly (regardless of whether such notes are surrendered to Targacept), purchase notes in the open market or by tender offer at any price or by private agreement. Targacept will cause any notes so purchased (other than notes purchased pursuant to cash-settled swaps or other derivatives) to be surrendered to the trustee for cancellation, and they will no longer be considered "outstanding" under the indenture upon their repurchase.

Reports

So long as any notes are outstanding, Targacept will (i) file with the SEC within the time periods prescribed by its rules and regulations and (ii) furnish to the trustee within 30 days after the date on which Targacept would be required to file the same with the SEC pursuant to its rules and regulations (giving effect to any grace period provided by Rule 12b-25 under the Exchange Act), all quarterly and annual financial information required to be contained in Forms 10-Q and 10-K and, with respect to the annual financial statements only, a report thereon by Targacept's independent auditors. Targacept shall not be required to file any report or other information with the SEC if the SEC does not permit such filing, although such reports will be required to be furnished to the trustee. Documents filed by Targacept with the SEC via the EDGAR system will be deemed to have been furnished to the trustee and the holders of the notes as of the time such documents are filed via EDGAR.

In addition, if at any time Targacept is not subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act, Targacept will, so long as any of the notes will, at such time, constitute "restricted securities" within the meaning of Rule 144(a)(3) under the Securities Act, make available to holders, beneficial owners and prospective purchasers of the Notes or any shares issuable upon conversion of the Notes, upon their request, the information required to be delivered pursuant to Rule 144A(d)(4) under the Securities Act to facilitate the resale of such notes pursuant to Rule 144A under the Securities Act. Targacept will take such further action as any holder or beneficial owner of such notes may reasonably request to the extent from time to time required to enable such holders or beneficial owners to sell such notes in accordance with Rule 144A under the Securities Act, as such rule may be amended from time to time.

Replacement of Notes

Targacept will replace mutilated, destroyed, stolen or lost notes at the expense of the holder upon delivery to the trustee of the mutilated notes, or evidence of the loss, theft or destruction of the notes satisfactory to Targacept and the trustee. In the case of a lost, stolen or destroyed note, indemnity satisfactory to the trustee and Targacept may be required at the expense of the holder of such note before a replacement note will be issued.

Calculations in Respect of the Notes

Targacept and its agents will be responsible for making all of the calculations called for under the indenture and the notes. These calculations include, but are not limited to, determinations of the closing sale price of Targacept's common stock, any adjustments to the conversion rate and the consideration deliverable in respect of any conversion payable on the notes. Targacept will make all these calculations in good faith and, absent manifest error, its calculations will be final and binding on the holders of notes. Targacept will provide a schedule of its calculations to each of the trustee and the conversion agent, and each of the trustee and conversion agent is entitled to rely conclusively upon the accuracy of Targacept's calculations without independent verification. The trustee will forward Targacept's calculations to any holder upon the request of that holder.

Notices

Except as otherwise described herein, notice to registered holders of the notes will be given to the addresses as they appear in the security register. Notices will be deemed to have been given on the date of such mailing or electronic delivery. Whenever a notice is required to be given by Targacept, subject to the terms set forth in the indenture, such notice may be given by the trustee on Targacept's behalf (and Targacept will make any notice it is required to give to holders available on its website).

No Personal Liability of Directors, Officers, Employees or Stockholders

No director, officer, employee, incorporator, or stockholder of Targacept, as such, will have any liability for any obligations of Targacept under the notes or the indenture or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each holder of notes by accepting a note waives and releases all such liability. The waiver and release are part of the consideration for issuance of the notes. The waiver may not be effective to waive liabilities under the federal securities laws.

Governing Law

The indenture provides that it and the notes, and any claim, controversy or dispute arising under or related to the indenture or the notes, will be governed by and construed in accordance with the laws of the State of New York (without regard to the conflicts of laws provisions thereof other than Section 5-1401 of the General Obligations Law). The indenture provides that Targacept and the trustee, and each holder of a note by its acceptance thereof, irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to the indenture, the notes or any transaction contemplated thereby.

Concerning the Trustee

American Stock Transfer & Trust Company, LLC has agreed to serve as the trustee under the indenture. The trustee in its individual or any other capacity may become the owner of notes and, subject to Sections 310(b) and 311 of the Trust Indenture Act, may otherwise deal with Targacept with the same rights it would have were it not trustee.

Book-Entry, Delivery and Form

Targacept will initially issue the notes in the form of one or more global securities. The global security will be deposited with the trustee as custodian for The Depository Trust Company, or DTC, and registered in the name of DTC. Except as set forth below, the global security may be transferred, in whole and not in part, only to DTC or another nominee of DTC. You may hold your beneficial interests in the global security directly through DTC if you have an account with DTC or indirectly through organizations that have accounts with DTC. Notes in definitive, fully registered, certificated form, referred to as "certificated securities," will be issued only in certain limited circumstances described below.

DTC has advised us that it is:

- a limited purpose trust company organized under the laws of the State of New York;
- a "banking organization" within the meaning of the New York State Banking Law;
- a member of the Federal Reserve System;
- a "clearing corporation" within the meaning of the New York Uniform Commercial Code; and
- a "clearing agency" registered under Section 17A of the Exchange Act.

DTC was created to hold securities of institutions that have accounts with DTC, referred to as "participants," and to facilitate the clearance and settlement of securities transactions among its participants in such securities through electronic book-entry changes in accounts of the participants, thereby eliminating the need for physical movement of securities certificates. DTC's participants include securities brokers and dealers, which may include the initial purchasers, banks, trust companies, clearing corporations and certain other organizations. Access to DTC's book-entry system is also available to others such as banks, brokers, dealers and trust companies, referred to as the "indirect participants," that clear through or maintain a custodial relationship with a participant, whether directly or indirectly.

Book-Entry Procedures for the Global Notes

We expect that, pursuant to procedures established by DTC upon the deposit of the global security with DTC, DTC will credit, on its book-entry registration and transfer system, the principal amount of notes represented by such global security to the accounts of participants. The accounts to be credited shall be designated by the initial purchasers. Ownership of beneficial interests in the global security will be limited to participants or persons that may hold interests through participants. Ownership of beneficial interests in the global security will be shown on, and the transfer of those beneficial interests will be effected only through, records maintained by DTC (with

respect to participants' interests), the participants and the indirect participants. The laws of some jurisdictions may require that certain purchasers of securities take physical delivery of such securities in definitive form. These limits and laws may impair the ability to transfer or pledge beneficial interests in the global security.

Owners of beneficial interests in global securities who desire to convert their interests into common stock should contact their brokers or other participants or indirect participants through whom they hold such beneficial interests to obtain information on procedures, including proper forms and cut-off times, for submitting requests for conversion.

So long as DTC, or its nominee, is the registered owner or holder of a global security, DTC or its nominee, as the case may be, will be considered the sole owner or holder of the notes represented by the global security for all purposes under the indenture and the notes. In addition, no owner of a beneficial interest in a global security will be able to transfer that interest except in accordance with the applicable procedures of DTC. Except as set forth below, as an owner of a beneficial interest in the global security, you will not be entitled to have the notes represented by the global security registered in your name, will not receive or be entitled to receive physical delivery of certificated securities and will not be considered to be the owner or holder of any notes under the global security. We understand that under existing industry practice, if an owner of a beneficial interest in the global security desires to take any action that DTC, as the holder of the global security, is entitled to take, DTC would authorize the participants to take such action, and the participants would authorize beneficial owners owning through such participants to take such action or would otherwise act upon the instructions of beneficial owners owning through them.

Targacept will make payments of principal of the notes represented by the global security registered in the name of and held by DTC or its nominee to DTC or its nominee, as the case may be, as the registered owner and holder of the global security. Neither Targacept, Catalyst, the trustee nor any of their respective agents will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial interests in the global security or for maintaining, supervising or reviewing any records relating to such beneficial interests.

We expect that DTC or its nominee, upon receipt of any payment of principal of the global security, will credit participants' accounts with payments in amounts proportionate to their respective beneficial interests in the principal amount of the global security as shown on the records of DTC or its nominee. We also expect that payments by participants or indirect participants to owners of beneficial interests in the global security held through such participants or indirect participants will be governed by standing instructions and customary practices and will be the responsibility of such participants or indirect participants. Neither Targacept, Catalyst, the trustee nor any of their respective agents will have any responsibility or liability for any aspect of the records relating to, or payments made on account of, beneficial interests in the global security for any note or for maintaining, supervising or reviewing any records relating to such beneficial interests or for any other aspect of the relationship between DTC and its participants or indirect participants or the relationship between such participants or indirect participants and the owners of beneficial interests in the global security owning through such participants.

Transfers between participants in DTC will be effected in the ordinary way in accordance with DTC rules and will be settled in same-day funds.

DTC has advised us that it will take any action permitted to be taken by a holder of notes only at the direction of one or more participants to whose account the DTC interests in the global security is credited and only in respect of such portion of the aggregate principal amount of notes as to which such participant or participants has or have given such direction. However, DTC will exchange the global security for certificated securities that it will distribute to its participants if:

- DTC notifies Targacept at any time that it is unwilling or unable to continue as depositary for the global notes and a successor depositary is not appointed within 90 days;

- DTC ceases to be registered as a clearing agency under the Exchange Act and a successor depositary is not appointed within 90 days; or
- an event of default with respect to the notes has occurred and is continuing and such beneficial owner requests that its notes be issued in physical, certificated form.

Although DTC is expected to follow the foregoing procedures in order to facilitate transfers of interests in the global security among participants of DTC, it is under no obligation to perform or continue to perform such procedures, and such procedures may be discontinued at any time. Neither Targacept, Catalyst, the trustee nor any of their respective agents will have any responsibility, or liability, for the performance by DTC or the participants or indirect participants of their respective obligations under the rules and procedures governing their respective operations.

COMPARISON OF RIGHTS OF HOLDERS OF TARGACEPT STOCK AND CATALYST STOCK

Targacept and Catalyst are both incorporated under the laws of the State of Delaware. The rights of Targacept stockholders and Catalyst stockholders are generally governed by the Delaware General Corporation Law. Upon completion of the merger, Catalyst stockholders will become stockholders of Targacept, and their rights will be governed by the Delaware General Corporation Law, the bylaws of Targacept, as amended and restated, and the fourth amended and restated certificate of incorporation of Targacept.

The material differences between the current rights of Catalyst stockholders under the Catalyst amended and restated certificate of incorporation and bylaws and their rights as Targacept stockholders, post-merger, under the Targacept fourth amended and restated certificate of incorporation and the amended and restated bylaws, both as will be in effect immediately following the completion of the merger, are summarized below. The summary below does not purport to be complete and is subject to, and qualified in its entirety by reference to, the Delaware General Corporation Law and the governing corporate instruments, which are subject to amendment in accordance with their terms. You should carefully read this entire document and the other referenced documents, including the governing corporate instruments, for a more complete understanding of the differences between being a stockholder of Targacept or Catalyst before the merger and being a stockholder of Targacept following the completion of the merger. For more information on how to obtain these documents, see the section entitled “Where You Can Find More Information” beginning on page 325.

Authorized Capital Stock

Catalyst. Catalyst’s amended and restated certificate of incorporation authorizes the issuance of up to 160,000,000 shares of common stock, $0.001 par value per share, and 92,388,789 shares of convertible preferred stock, $0.001 par value per share, of which 7,327,166 are designated “Series AA Preferred Stock,” 23,104,618 are designated “Series BB Preferred Stock,” 5,978,477 are designated “Series BB-1 Preferred Stock,” 46,429,980 are designated “Series CC Preferred Stock,” 629,630 are designated “Series D Preferred Stock,” 4,918,918 are designated “Series E Preferred Stock,” and 4,000,000 are designated “Series F Preferred Stock.”

Targacept . Targacept’s fourth amended and restated certificate of incorporation authorizes the issuance of up to 100,000,000 shares of common stock, par value $0.001 per share, and 5,000,000 shares of preferred stock, par value $0.001 per share.

Dividends

Catalyst. Catalyst’s amended and restated certificate of incorporation provides that the holders of Series F convertible preferred stock shall be entitled, if, when and as declared by the Catalyst board of directors, non-cumulative dividends at the rate of 8% of the original issue price for such shares in preference and priority to the holders of Series E, Series D, Series CC, Series BB-1, Series BB, Series AA convertible preferred stock and/or common stock. The holders of Series E convertible preferred stock shall be entitled, if, when and as declared by the Catalyst board of directors, non-cumulative dividends at the rate of 8% of the original issue price for such shares in preference and priority to the holders of Series D, Series CC, Series BB-1, Series BB, Series AA convertible preferred stock and/or common stock. Holders of Series D convertible preferred stock shall be entitled, if, when and as declared by the Catalyst board of directors, non-cumulative dividends at the rate of 8% of the original issue price for such shares in preference and priority to the holders of Series CC, Series BB-1, Series BB, Series AA convertible preferred stock and/or common stock. The holders of Series CC convertible preferred stock shall be entitled, if, when and as declared by the Catalyst board of directors, non-cumulative dividends at the rate of 8% of the original issue price for such shares in preference and priority to the holders of Series BB-1, Series BB, Series AA convertible preferred stock and/or common stock. The holders of Series BB and BB-1 convertible preferred stock shall be entitled, if, when and as declared by the Catalyst board of directors, on a pari passu basis, non-cumulative dividends at the rate of 8% of the original issue price for such shares. Holders of Series AA convertible preferred stock shall be entitled if, when and as declared by the Catalyst board

of directors, non-cumulative dividends at the rate of 8% of the original issue price for such shares in preference and priority to the holders of the common stock.

After the payment or setting aside for payment of the dividends described above, any additional dividends (other than dividends on common stock payable solely in common stock) declared or paid shall be declared or paid among the holders of the convertible preferred stock and common stock then outstanding in proportion to the greatest whole number of shares of common stock held by each such holder (assuming conversion of the convertible preferred stock).

Targacept. Under Targacept's amended and restated bylaws, Targacept may pay dividends out of its earned surplus on its outstanding shares in the manner and upon the terms and conditions provided by law.

Liquidation Preference

Catalyst. Catalyst's amended and restated certificate of incorporation provides that in the event of any Liquidation Transaction (as defined in Catalyst's amended and restated certificate of incorporation), the holders of Series F convertible preferred stock are entitled to the liquidation preference of $6.353 for each such share of preferred stock, together with any declared but unpaid dividends, prior to the payment of any distributions to the holders of Series E, Series D, Series CC, Series BB-1, Series BB, Series AA convertible preferred stock and/or common stock. After the payment of the preferential amounts described above, the holders of Series E convertible preferred stock are entitled to the liquidation preference of $2.5412 for each such share of preferred stock, together with any declared but unpaid dividends, prior to the payment of any distributions to the holders of Series D, Series CC, Series BB-1, Series BB, Series AA convertible preferred stock and/or common stock. After the payment of the preferential amounts described above, the holders of Series D convertible preferred stock are entitled to the liquidation preference of $6.353 for each such share of preferred stock, together with any declared but unpaid dividends, prior to the payment of any distributions to the holders of Series CC, Series BB-1, Series BB, Series AA convertible preferred stock and/or common stock. After the payment of the preferential amounts described above, the holders of Series CC convertible preferred stock are entitled to the liquidation preference of $1.2706 for each such share of preferred stock, together with any declared but unpaid dividends, prior to the payment of any distributions to the holders of Series BB-1, Series BB, Series AA convertible preferred stock and/or common stock. After the payment of the preferential amounts described above, the holders of Series BB-1, Series BB, and Series AA convertible preferred stock are then entitled to the liquidation preference of $1.5054, $1.2706 and $1.00, respectively, for each such share of preferred stock, together with any declared but unpaid dividends, prior to the payment of any distributions to the holders of common stock. After the payment of the full preferential amounts specified above, the remaining assets shall be distributed with equal priority and pro rata among the holders of preferred stock and common stock in proportion to the number of shares of common stock held by them (assuming conversion of the convertible preferred stock).

Targacept. Targacept's fourth amended and restated certificate of incorporation and amended and restated bylaws do not provide for any liquidation preferences.

Conversion Rights and Protective Provisions.

Catalyst. Catalyst's amended and restated certificate of incorporation provides that holders of preferred stock have the right to convert such shares into shares of common stock at any time at a conversion rate in accordance with the amended and restated certificate of incorporation. In addition, upon the closing of a firm commitment underwritten initial public offering resulting in at least $40 million of proceeds at the offering price per share of not less than $2.5412 or the receipt of written consent from at least sixty-six and two-thirds percent (66 2/3%) of the preferred stock then outstanding voting together on an as-converted into common stock basis or later time as specified in such consent, all outstanding shares of convertible preferred stock shall automatically be converted into shares of common stock. Catalyst's amended and restated certificate of incorporation also provides for certain protective provisions, as stated below.

As long as 5,000,000 shares of Series AA convertible preferred stock are outstanding, Catalyst shall not amend any provision of Catalyst's amended and restated certificate of incorporation or bylaws if such amendment would alter the powers, preferences or special rights of shares of Series AA convertible preferred stock so as to affect them materially and adversely, or increase or decrease (other than decreases resulting from conversion of Series AA convertible preferred stock) the authorized number of shares of Series AA convertible preferred stock, without the approval of the holders of at least a majority of the outstanding shares of Series AA convertible preferred stock.

As long as at least 10,000,000 shares of Series BB and Series BB-1 convertible preferred stock are outstanding, Catalyst shall not amend any provision of Catalyst's amended and restated certificate of incorporation or bylaws if such amendment would alter the powers, preferences or special rights of shares of Series BB and Series BB-1 convertible preferred stock so as to affect them materially and adversely, or increase or decrease (other than decreases resulting from conversion of Series BB or Series BB-1 convertible preferred stock) the authorized number of shares of Series BB or Series BB-1 convertible preferred stock, without the approval of the holders of at least a majority of the outstanding shares of Series BB and Series BB-1 convertible preferred stock.

As long as at least 10,000,000 shares of Series CC convertible preferred stock are outstanding, Catalyst shall not amend any provision of Catalyst's amended and restated certificate of incorporation or bylaws if such amendment would alter the powers, preferences or special rights of shares of Series CC convertible preferred stock so as to affect them materially and adversely; or either (i) increase or decrease (other than decreases resulting from conversion of the Series CC convertible preferred stock) the authorized number of shares of Series CC convertible preferred stock, or (ii) issue any shares of Series CC convertible preferred stock unless approved by Catalyst's board of directors with the Series CC designated director voting in favor), without the approval of the holders of at least a majority of the outstanding shares of Series CC convertible preferred stock.

As long as at least 200,000 shares of Series D convertible preferred stock are outstanding, Catalyst shall not amend any provision of Catalyst's amended and restated certificate of incorporation or bylaws if such amendment would alter the powers, preferences or special rights of shares of Series D Preferred Stock so as to affect them materially and adversely; or either (i) increase or decrease (other than decreases resulting from conversion of the Series D convertible preferred stock) the authorized number of shares of Series D convertible preferred stock, or (ii) issue any shares of Series D convertible preferred stock unless approved by Catalyst's board of directors with a majority of the Investor Directors (as defined in Catalyst's amended and restated certificate of incorporation) voting in favor, without the approval of the holders of at least a majority of the outstanding shares of Series D convertible preferred stock.

As long as at least 2,000,000 shares of Series F and Series E convertible preferred stock are outstanding, Catalyst shall not amend any provision of Catalyst's amended and restated certificate of incorporation or bylaws if such amendment would alter the powers, preferences or special rights of shares of Series F or Series E convertible preferred stock so as to affect them materially and adversely; or either (i) increase or decrease (other than decreases resulting from conversion of the Series F or Series E convertible preferred stock) the authorized number of shares of Series F or Series E convertible preferred stock, or (ii) issue any shares of Series F or Series E convertible preferred stock unless approved by Catalyst's board of directors with a majority of the Investor Directors (as defined in Catalyst's amended and restated certificate of incorporation) voting in favor, without the approval of the holders of at least a majority of the outstanding shares of Series F and Series E convertible preferred stock, voting together as a separate class on an as-converted into common stock basis.

As long as at least 17,000,000 shares of Catalyst convertible preferred stock are outstanding, Catalyst shall not without first obtaining the approval of the holders of at least sixty-six and two-thirds percent (66 2/3%) of the outstanding shares of Catalyst's convertible preferred stock, voting together as a single class on an as-converted into common stock basis:

- take any action that will alter or change the rights, preferences or privileges of any series of preferred stock;

- amend any provision of Catalyst's certificate of incorporation or bylaws if such action would materially and adversely alter the rights, preferences, privileges of any series of preferred stock;
- increase or decrease the authorized number of directors on Catalyst's board of directors;
- reclassify any of Catalyst's outstanding capital stock;
- enter into any transaction or series of related transactions deemed to be a Liquidation Transaction (as defined in Catalyst's amended and restated certificate of incorporation), or otherwise take any action that will result in a Liquidation Transaction;
- increase or decrease (other than decreases resulting from conversion of the preferred stock) the authorized number of shares of common stock or preferred stock or any series thereof;
- authorize, designate or create (i) any new class or series of shares having any rights, preferences or privileges senior to or on a parity with any series of preferred stock or (ii) any security or instrument convertible, exercisable or exchangeable for any class or series of stock referred to in clause (i) above;
- redeem, repurchase or otherwise acquire (or pay into or set aside for a sinking fund for such purpose) any shares of common stock or preferred stock;
- enter into a loan, guarantee or other transaction that will result in Catalyst being indebted in a principal amount in excess of $500,000 in the aggregate, outside the ordinary course of business, unless approved by Catalyst's board of directors with at least a majority of the Investor Directors (as defined in Catalyst's amended and restated certificate of incorporation) voting in favor;
- declare or pay any dividend or distribution to the holders of shares of common stock or preferred stock;
- enter into any transaction with any related party, with certain exceptions; or
- make any commitment or binding obligation to take any action that would require approval from the holders of preferred stock as outlined above.

Targacept. Targacept's fourth amended and restated certificate of incorporation does not provide that the holders of Targacept stock have preemptive, conversion or other protective rights, but it does provide that Targacept's board is authorized and therefore may, subject to any limitations prescribed by the law, provide for the issuance of shares of preferred stock in one or more series and to fix the designations, powers, preferences, relative, participating, optional or other special rights and any qualifications, limitations and restrictions of the shares of each such series.

Number of Directors

Catalyst. Catalyst's amended and restated certificate of incorporation sets the number of directors at eight. Catalyst's bylaws provide that the number of directors may be changed from time to time by resolutions of the Catalyst board of directors, provided that pursuant to Catalyst's amended and restated certificate of incorporation, as long as at least 17,000,000 shares of the preferred stock shall be issued and outstanding, any increase or decrease of the authorized number of directors will require approval of at least sixty-six and two-thirds percent (66 2/3%) of the outstanding shares of the preferred stock, voting together as a single class, on an as-converted into common stock basis.

Targacept. Targacept's amended and restated bylaws provide that the board of directors of Targacept consist of not less than three or more than thirteen members as fixed from time to time in accordance with the terms of Targacept's fourth amended and restated certificate of incorporation, which provides that the number of directors shall be fixed from time to time exclusively by Targacept's board of directors, subject to any rights of holders of any series of preferred stock to elect additional directors.

Stockholder Nominations and Proposals

Catalyst. Catalyst's amended and restated certificate of incorporation and bylaws do not provide for procedures regarding stockholder nominations and proposals.

Targacept. Targacept's amended and restated bylaws provide that in order for a stockholder to make any director nomination or propose business at a Targacept annual stockholders meeting, the stockholder must (i) provide timely notice in writing to the Secretary, and (ii) provide all updates and supplements to such notice, which must be received not fewer than ninety (90) and not more than one hundred twenty (120) calendar days in advance of the date that is the one year anniversary of the preceding year's annual stockholders meeting; provided, however, that adjustments may be made if no annual stockholders meeting was held in the preceding year or the date of the annual stockholders meeting has been advanced by more than thirty (30) days or delayed by more than sixty (60) days from the one year anniversary of the previous year's annual stockholders meeting or, if the first public disclosure of the date of such annual meeting is less than one hundred (100) days prior to such annual meeting.

Targacept's amended and restated bylaws provides that if the election of directors is a matter specified in the notice of meeting given by or at the direction of the person calling such special meeting, then for a stockholder to make any director nominations at a special meeting, the stockholder must (i) provide timely notice in writing to the Secretary, and (ii) provide all updates and supplements to such notice, which must be received not earlier than the one hundred twentieth (120^{th}) day prior to such special meeting and not later than the close of business on the ninetieth (90^{th}) day prior to such special meeting or, if the first public disclosure of the date of such special meeting is less than one hundred (100) days prior to such special meeting, the close of business on the tenth (10^{th}) day following the day of such first public disclosure.

Classification of Board of Directors

Catalyst. Catalyst's amended and restated certificate of incorporation and bylaws do not provide for the division of the board of directors of Catalyst into staggered classes.

Targacept . Targacept's fourth amended and restated certificate of incorporation provides that the directors, other than those who may be elected by the holders of any series of preferred stock, shall be divided into three classes, with each class having a three-year term expiring on a staggered basis.

Removal of Directors

Catalyst. Catalyst's bylaws provide that, unless otherwise restricted by statute or the amended and restated certificate of incorporation, any director may be removed, with or without cause, by the holders of majority of the shares then entitled to vote at an election of directors.

Targacept. Under Targacept's fourth amended and restated certificate of incorporation and the amended and restated bylaws, subject to the rights of holders of any series of preferred stock then-outstanding except as otherwise provided in the fourth amended and restated certificate of incorporation or required by law, directors may be removed from the board of directors of Targacept with or without cause, but only by the affirmative vote of the holders of at least 66 2/3% of the then-outstanding shares of capital stock entitled to vote in the election of directors, voting together as a single class.

Vacancies on the Board of Directors

Catalyst. Catalyst's bylaws provide that vacancies and newly created directorship resulting from any increase in the authorized number of directors elected by all the stockholders have the right to vote as a single class may be filled by a majority of the directors then in office, although less than a quorum, or by a sole remaining director. The bylaws further provides that whenever the holders of any class or classes or series of stock thereof are

entitled to elect one or more directors by the provisions of the amended and restated certificate of incorporation, vacancies that occurs therefrom may be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected.

Targacept. Targacept's fourth amended and restated certificate of incorporation and amended and restated bylaws provide that vacancies and newly created directorships may be filled only by a majority vote of the directors then in office even though less than a quorum, or by a sole remaining director, and not by the stockholders, unless otherwise provided by resolutions of the board of directors of Targacept, the fourth amended and restated certificate of incorporation, or required by law.

Voting Stock

Catalyst. Catalyst's amended and restated certificate of incorporation provides that the holders of common stock are entitled to one vote for each share of stock held by them and holders of convertible preferred stock are entitled to one vote for each share of common stock into which such share of preferred stock is convertible; provided that the holders of Series AA Preferred Stock, voting as a separate series, are entitled to elect two (2) directors, the holders of Series BB Preferred Stock, voting as a separate series, are entitled to elect two (2) directors, the holders of Series BB-1 Preferred Stock, voting as a separate series, are entitled to elect one (1) director, the holders of Series CC Preferred Stock is entitled to elect one (1) director, and the holders of common stock, voting as a separate class, are entitled to elect one (1) director.

Targacept. Targacept's fourth amended and restated certificate of incorporation provides that each outstanding share shall entitle the holder thereof to one vote on each matter properly submitted to the stockholders for a vote; provided that, except as otherwise required by law, common stockholders shall not be entitled to vote on any amendment to the fourth amended and restated certificate of incorporation that relates solely to the terms of one or more outstanding series of preferred stock if the holders of such affected series are entitled, either separately, or together as a class with the holders of one or more other series, to vote thereon by law or pursuant to the fourth amended and restated certificate of incorporation. Under Targacept's amended and restated bylaws, in all matters, other than the election of directors, the affirmative vote of the holders of a majority of the shares present in person or represented by proxy at a meeting of stockholders and entitled to vote on the subject matter shall be the act of the stockholders on that matter, unless the vote of a greater number is required by law, the amended and restated bylaws, or the fourth amended and restated certificate of incorporation. Directors shall be elected by a plurality of the votes of the shares of capital stock present in person or represented by proxy at the meeting and entitled to vote on the election of directors.

Cumulative Voting

Catalyst. Catalyst's amended and restated certificate of incorporation states that if, and as long as, Section 2115 of the California General Corporation Law purports to make Section 708 subdivisions (a), (b) and (c) of the California General Corporation Law applicable to Catalyst, Catalyst's stockholders shall have the right to cumulate their votes in connection with the election of directors as provided by Section 708 subdivisions (a), (b) and (c) of the California General Corporation Law. The forgoing is not intended to, not shall it be, any admission or agreement that the California General Corporation Law is applicable to Catalyst.

Targacept. Targacept's fourth amended and restated certificate of incorporation provides that no stockholder will be permitted to cumulate votes at any election of directors.

Stockholder Action by Written Consent

Catalyst. Catalyst's bylaws provide that unless otherwise provided in the amended and restated certificate of incorporation, any action required or permitted to be taken at any annual or special meeting of stockholders may be taken without a meeting, without prior notice, and without a vote if a consent in writing, setting forth the

action so taken, is signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted.

Targacept. Targacept's fourth amended and restated certificate of incorporation and amended and restated bylaws specifies that any action required or permitted to be taken by the stockholders must be effected at a duly called annual or special meeting of stockholders and may not be effected by any written consent by such stockholders.

Notice of Stockholder Meeting

Catalyst. Catalyst's bylaws provide that all notices of meetings with stockholders shall be in writing and specify the place, date, and hour of the meeting, and in the case of a special meeting, the purpose or purposes for which the meeting is called. The bylaws also provide that all such notices of meetings shall be sent not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting.

Targacept. Targacept's amended and restated bylaws requires that the notice be written or printed and state the time and place of the meeting, the means of remote communications if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting and, in the case of a special meeting, briefly describe the purpose or purpose of the meeting. Targacept's amended and restated bylaws also provide that all such notices be given not less than ten (10) or more than sixty (60) days before the date of the meeting, to each stockholder of record entitled to vote at the meeting.

Special Stockholder Meetings

Catalyst. Catalyst's bylaws provide that a special meeting of the stockholders may be called at any time by the board of directors of Catalyst, or by the Chairman of the Board, or by the President, or by one or more stockholders holding shares in the aggregate entitled to cast not less than ten percent (10%) of the votes at the meeting.

Targacept. Under Targacept's fourth amended and restated certificate of incorporation, special meetings of the stockholders may be called only by the Chairman of the Board, the Chief Executive Officer, the President or by the board of directors of Targacept acting pursuant to a resolution adopted by a majority of the Whole Board (as defined in the amended and restated bylaws). Any power of stockholders to call a special meeting of stockholders is specifically denied.

Indemnification

Catalyst. Catalyst's amended and restated certificate of incorporation provides that Catalyst may indemnify to the fullest extent permitted by law (including advancement of expenses) any person made or threaten to be made a party to an action or proceeding, by reason of the fact that he, his testator or intestate is or was a director, officer or employee of Catalyst or any predecessor of Catalyst or serves or served at any other enterprise as a director, officer or employee at the request of Catalyst or any predecessor of Catalyst.

Targacept. Targacept's fourth amended and restated certificate of incorporation provides that, to the fullest extent permitted by the provision of Section 145 of the Delaware General Corporation Law, Targacept shall indemnify any person who is or was a director or officer, or is or was serving at the request of Targacept as a director, officer or trustee of another corporation, partnership, joint venture, trust employee benefit plan or other enterprise, for expenses, liabilities or other matters referred to in or covered by said section.

In proceedings other than those by or in the right of Targacept, Targacept's amended and restated bylaws provide that Targacept will only indemnify the indemnitee in connection with a proceeding (or part thereof) initiated by

such indemnitee only if such proceeding (or part thereof) was authorized by the board of directors of Targacept, except as provided in Section 3 of Article VII of Targacept's amended and restated bylaws with respect to proceedings to enforce indemnification rights. Additionally, in proceedings other than those by or in the right of Targacept, Targacept's amended and restated bylaws provides that such indemnification right includes the right to advancement of expenses, provided however, that if the Delaware General Corporation Law so requires, an advancement of expenses incurred by an indemnitee in his or her capacity as a director or officer (and not in any other capacity in which service was or is rendered by such indemnitee) shall be made only upon delivery to Targacept of an undertaking, by or on behalf of such indemnitee, to repay all amounts so advanced if it shall ultimately be determined that such indemnitee is not entitled to indemnification by Targacept under Article VII, Section 1 of the amended and restated bylaws or otherwise.

Under Targacept's amended and restated bylaws and the fourth amended and restated certificate of incorporation, Targacept may, to the extent authorized from time to time by the Targacept board of directors, provide indemnification rights and the advancement of expenses to any employee or agent of Targacept, to any person serving Targacept or to any person who is or was serving at the request of Targacept as an employee or agent.

Amendment of Certificate of Incorporation

Catalyst. Other than as set forth in the protective provisions in Article V, Section 6 of Catalyst's amended and restated certificate of incorporation and provided by law, Catalyst's amended and restated certificate of incorporation does not have other restrictions for amending Catalyst's amended and restated certificate of incorporation, except that neither any amendment nor repeal of Article IX of Catalyst's amended and restated certificate of incorporation (which pertains to indemnification), nor adoption of any provision inconsistent with Article IX, shall eliminate or reduce the effect of Article IX in respect of any matter occurring, or any action or proceeding accruing or arising or that, but for Article IX, would accrue or arise, prior to such amendment, repeal or adoption of an inconsistent provision.

Targacept. Targacept's fourth amended and restated certificate of incorporation provides that its provisions may be amended, altered or repealed in the manner and at the time prescribed by Delaware law, provided, however that, the affirmative vote of the holders of at least 66 2/3% of the voting power of the then-outstanding shares of voting stock entitled to vote generally in the election of directors, voting as a single class, shall be required to amend or repeal articles VI (which pertains to management of business and conduct of affairs), VII (which pertains to directors), VIII (which pertains to amendments to the amended and restated bylaws), IX and X (both of which pertain to indemnification), and XI (which pertains to amendments to the fourth amended and restated certificate of incorporation). Additionally, under the fourth amended and restated certificate of incorporation, neither any amendment, repeal or modification of articles IX and X (which pertains to indemnification) or adoption of any provisions of the fourth amended and restated certificate of incorporation or the amended and restated bylaws inconsistent with articles IX and X shall adversely affect any right or protection of a director or office existing at the time of such amendment, repeal, modification or adoption.

Amendment of Bylaws

Catalyst. Under Catalyst's amended and restated certificate of incorporation, Catalyst's board of directors is expressly authorized to make, alter, amend or repeal Catalyst's bylaws, provided that Catalyst's bylaws may not be amended without the separate written consent of at least sixty-six and two-thirds percent (66 2/3%) of the outstanding shares of preferred stock, voting together as a single class on an as-converted to common stock basis. Catalyst's bylaws provide that the stockholders entitled to vote may adopt, amend or repeal Catalyst's bylaws and can confer such power to the board of directors of Catalyst. The fact that such power has been so conferred upon the directors shall not divest the stockholders of the power nor limit their power to adopt, amend or repeal the bylaws.

Targacept. Targacept's fourth amended and restated certificate of incorporation and the amended and restated bylaws provides that the board of directors of Targacept may exercise the power to adopt, amend or repeal

Targacept's amended and restated bylaws and that the stockholders also have the same power to adopt, amend or repeal Targacept's amended and restated bylaws, whether adopted by the board of directors of Targacept or otherwise, provided however that in addition to any vote of holders of any class or series of stock required by law or the fourth amended and restated certificate of incorporation, the affirmative vote of the holders of at least 66 2/3% of the then-outstanding voting shares entitled to vote generally in the election of directors, voting together as a single class, shall be required to adopt, amend or repeal all or any portion of Sections 13 or 14 of Article II, Section 2 of Article III, Article VIII and Section 6 of Article IX of the amended and restated bylaws.

PRINCIPAL STOCKHOLDERS OF TARGACEPT

Except where specifically noted, the following information and all other information contained in this proxy statement/prospectus/information statement do not give effect to the proposed reverse stock split described in Targacept Proposal No. 2.

Targacept's common stock is its only class of voting security. The table below sets forth information regarding the beneficial ownership of Targacept's common stock as of July 15, 2015 for:

- each of the individuals identified as named executive officers in the Summary Compensation Table on page 165;
- each of Targacept's directors and director nominees;
- all of Targacept's directors and executive officers as a group; and
- each person, entity or group of affiliated persons or entities known by us to beneficially own more than 5% of Targacept's common stock.

Beneficial ownership is determined under SEC rules and includes sole or shared power to vote or dispose of shares of Targacept's common stock. The number and percentage of shares beneficially owned by a person or entity also include shares of common stock subject to stock options that are currently exercisable or become exercisable within 60 days of July 15, 2015. However, these shares are not deemed to be outstanding for the purpose of computing the percentage of shares beneficially owned of any other person or entity. Except as indicated in footnotes to the table below or, where applicable, to the extent authority is shared by spouses under community property laws, the beneficial owners named in the table have, to our knowledge, sole voting and dispositive power with respect to all shares of common stock shown to be beneficially owned by them. Percentage of shares beneficially owned is based on 34,292,291 shares of common stock outstanding on July 15, 2015. Unless otherwise indicated, the address of each beneficial owner named in the table is c/o Targacept, Inc., 100 North Main Street, Suite 1510, Winston-Salem, North Carolina 27101.

Name and Address of Beneficial Owner	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned
More Than 5% Stockholders		
BVF Inc. and affiliates 900 North Michigan Avenue, Suite 1100 Chicago, Illinois 60611	6,655,128(1)	19.4%
New Enterprise Associates 10, Limited Partnership and affiliates 1954 Greenspring Drive, Suite 600 Timonium, Maryland 21093	4,563,512(2)	13.3%
RTW Investments, LLC 250 W. 55th Street New York, NY 10019	2,665,643(3)	7.8%
The Vanguard Group, Inc. PO Box 2600 V26 Valley Forge, PA 19482	1,781,032(4)	5.2%

Name and Address of Beneficial Owner	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned
Directors and Named Executive Officers		
John P. Richard	110,308(5)	*
Charles A. Blixt	92,500(6)	*
Julia R. Brown	81,900(7)	*
Errol B. De Souza	112,833(8)	*
Alan W. Dunton	94,500(9)	*
Stephen A. Hill	510,625(10)	1.5%
Mauri K. Hodges	248,097(11)	*
Scott N. Cullison	187,574(12)	*
Patrick C. Rock	105,625(13)	*
Steven M. Toler	214,313(14)	*
All directors and executive officers as a group (10 persons)	1,758,275(15)	5.1%

* Represents beneficial ownership of less than one percent of Targacept's common stock

(1) The information reported is based on a Schedule 13D/A filed with the SEC on March 18, 2015, which reports that, as of the close of business on March 5, 2015, (i) Biotechnology Value Fund, L.P. ("BVF") beneficially owned 2,977,919 shares, (ii) Biotechnology Value Fund II, L.P. ("BVF2") beneficially owned 1,713,907 shares, (iii) BVF Investments, L.L.C. ("BVLLC") beneficially owned 349,482 shares, (iv) Investment 10, L.L.C. ("ILL10") beneficially owned 1,130,361 shares, and (v) MSI BVF SPV, LLC ("MSI") beneficially owned 483,459 shares of common stock. BVF Partners L.P. ("Partners") as the general partner of BVF and BVF2, the manager of BVLLC and the investment adviser to each of ILL10 and MSI, may be deemed to beneficially own the 6,655,128 shares beneficially owned in the aggregate by BVF, BVF2, BVLLC, ILL10 and MSI. BVF Inc., as the general partner of Partners, may be deemed to beneficially own the 6,655,128 shares of common stock beneficially owned by Partners. Mark N. Lampert, as a director and officer of BVF Inc., may be deemed to beneficially own the 6,655,128 shares of common stock beneficially owned by BVF Inc. Partners, BVF Inc. and Mr. Lampert share voting and dispositive power over the shares beneficially owned by BVF, BVF2, BVLLC, ILL10 and MSI. Each of Partners, BVF Inc. and Mr. Lampert disclaims beneficial ownership of the shares beneficially owned by BVF, BVF2, BVLLC, ILL10 and MSI.

(2) The information reported is based on a Schedule 13D/A filed with the SEC on March 17, 2015, which reports that, as of the close of business on March 6, 2015, New Enterprise Associates 10, Limited Partnership, or NEA 10, is the record owner of 4,563,512 shares of Common Stock, or the NEA 10 Shares. As the sole general partner of NEA 10, NEA Partners 10 may be deemed to own beneficially the NEA 10 Shares. As the individual general partners of NEA Partners 10, each of the General Partners also may be deemed to own beneficially the NEA 10 Shares. Additionally, Michael James Barrett holds options to purchase 57,500 shares, which are exercisable within 60 days, or the Barrett Option Shares. As a result, Mr. Barrett may be deemed to own beneficially the Barrett Shares in addition to the NEA 10 Shares for a total of 4,621,012 shares of Common Stock.

(3) The information reported is based on a Schedule 13G/A filed with the SEC on February 17, 2015 by RTW Investments, LLC.

(4) The information reported is based on a Schedule 13F-HR filed with the SEC on May 14, 2015 by The Vanguard Group, Inc.

(5) Includes 7,500 shares owned of record by The Richard Family Revocable Trust, for which Mr. Richard serves as a co-trustee. Also includes 87,475 shares subject to options exercisable currently or within 60 days of July 15, 2015.

(6) Includes 82,500 shares subject to options exercisable currently or within 60 days of July 15, 2015.

(7) Includes (i) 6,000 shares owned of record by the Julia R. Brown Trust, for which Ms. Brown is the sole trustee, and (ii) 65,900 shares subject to options exercisable currently or within 60 days of July 15, 2015.

(8) Includes 97,500 shares subject to options exercisable currently or within 60 days of July 15, 2015.

(9) Includes 84,500 shares subject to options exercisable currently or within 60 days of July 15, 2015.

(10) Includes 315,625 shares subject to options exercisable currently or within 60 days of July 15, 2015.
(11) Includes 206,838 shares subject to options exercisable currently or within 60 days of July 15, 2015.
(12) Includes 147,574 shares subject to options exercisable currently or within 60 days of July 15, 2015. On May 13, 2015, Targacept terminated the employment of Mr. Cullison, effective May 31, 2015, other than for just cause in connection with the anticipated change in control of Targacept. Upon the effectiveness of Mr. Cullison's termination, there was full acceleration on the vesting of each of his stock options.
(13) Includes 60,625 shares subject to options exercisable currently or within 60 days of July 15, 2015.
(14) Includes 189,025 shares subject to options exercisable currently or within 60 dates of July 15, 2015. On March 11, 2015, Targacept terminated the employment of Dr. Toler other than for just cause in connection with the anticipated change in control of Targacept. Upon the effectiveness of Dr. Toler's termination, there was full acceleration on the vesting of each of his stock options.
(15) Includes the shares held, and shares subject to options exercisable currently or within 60 days of July 15, 2015, by the directors and executive officers named in the table, and as set forth in footnotes 4 through 14.

PRINCIPAL STOCKHOLDERS OF CATALYST

The following table and the related notes present information on the beneficial ownership of shares of Catalyst's capital stock as of July 15, 2015 by:

- each director of Catalyst;
- each executive officer of Catalyst;
- all of Catalyst's current directors and executive officers as a group; and
- each stockholder known by us to beneficially own more than five percent of its common stock on an as-converted basis.

The number of shares owned, total shares beneficially owned and the percentage of common stock beneficially owned below assumes, in each case, the conversion of all 7,327,166 shares of Catalyst Series AA convertible preferred stock into 7,327,166 shares of Catalyst common stock as of July 15, 2015, all 23,104,618 shares of Catalyst Series BB convertible preferred stock into 23,104,618 shares of Catalyst common stock as of July 15, 2015, all 5,978,447 shares of Catalyst Series BB-1 convertible preferred stock into 6,501,474 shares of catalyst common stock as of July 15, 2015, all 46,429,980 shares of Catalyst Series CC convertible preferred stock into 46,429,980 shares of Catalyst common stock as of July 15, 2015, all 629,630 shares of Catalyst Series D convertible preferred stock into 629,630 shares of Catalyst common stock as of July 15, 2015, all 3,935,140 shares of Catalyst Series E convertible preferred stock into 3,935,140 shares of Catalyst common stock as of July 15, 2015, all 2,623,650 shares of Catalyst Series F convertible preferred stock into 26,236,500 shares of Catalyst common stock, and a total of 9,826,757 shares of Catalyst common stock outstanding as of July 15, 2015, for a total of 123,991,265 shares outstanding on an as-converted to common stock basis.

Beneficial ownership is determined under SEC rules and includes sole or shared power to vote or dispose of shares of Catalyst's common stock. The number and percentage of shares beneficially owned by a person or entity also include shares of common stock subject to stock options that are currently exercisable or become exercisable within 60 days of July 15, 2015. However these share are not deemed to be outstanding for the purpose of computing the percentage of shares beneficially owned of any other person or entity. Except as indicated in footnotes to the table below or, where applicable, to the extent authority is shares by spouses under community property laws, the beneficial owners named in the table have, to our knowledge, sole voting and dispositive power with respect to all shares of common stock shown to be beneficially owned by them. Unless otherwise indicated, the address for each stockholder listed is: c/o Catalyst Biosciences, Inc., 260 Littlefield Avenue, South San Francisco, CA 94080.

Name	Number of Shares Owned and Nature of Beneficial Ownership	Percent of Class
5% or Greater Stockholders		
Funds affiliated with Essex Woodlands Health Ventures 335 Bryant Street, 3rd Floor Palo Alto, CA 94301	26,422,391(1)	21.3%
Funds affiliated with HealthCare Ventures VIII, L.P. 47 Thorndike Street, Suite B1-11954 Cambridge, MA 02141	17,138,476(2)	13.8%
Johnson & Johnson Innovation-JJDC, Inc. 410 George Street New Brunswick, NJ 08901	16,419,697(3)	13.2%
Morgenthaler Partners VIII, L.P. 2710 Sand Hill Road, Suite 100 Menlo Park, CA 94025	15,486,871(4)	12.5%

Name	Number of Shares Owned and Nature of Beneficial Ownership	Percent of Class
Sofinnova Venture Partners VI, L.P. 3000 Sand Hill Road, Bldg. 4, Suite 250 Menlo Park, CA 94025	13,092,494(5)	10.6%
Rosetta Capital V LP c/o The Accounts Bureau Limited 83 Victoria Street London, SW1H OHW United Kingdom	10,970,874(6)	8.8%
Directors and Named Executive Officers		
Nassim Usman, Ph.D.	4,182,871(7)	3.3%
Harold E. Selick, Ph.D.	520,125(8)	*
Ralph E. Christoffersen, Ph.D.	15,486,871(4)	12.5%
Jeff Himawan, Ph.D.	26,422,391(1)	21.3%
Augustine Lawlor	17,138,476(2)	13.8%
Michael F. Powell, Ph.D.	13,092,494(5)	10.6%
Asish K. Xavier	16,419,697(3)	13.2%
Edwin L. Madison, Ph.D.	1,987,088(9)	1.6%
Fletcher Payne	544,358(10)	*
All directors and officers as a group (9 persons)	95,794,371(11)	74.9%

* Represents beneficial ownership of less than 1% of class.

(1) Consists of 16,374,527 shares of Series CC convertible preferred stock, 156,214 shares of Series D convertible preferred stock, 320,960 shares of Series E convertible preferred stock, 427,947 shares of Series F convertible preferred stock, and warrants to purchase 184,127 shares of Series E convertible preferred stock held directly by Essex Woodlands Health Ventures Fund VIII, L.P. (“Essex VIII”); 1,370,231 shares of Series CC Preferred Stock, 11,264 shares of Series D convertible preferred stock, 24,143 shares of Series E convertible preferred stock, 30,855 shares of Series F convertible preferred stock, and 13,275 shares of Series E convertible preferred stock issuable to Essex VIII upon the exercise of warrants within 60 days of July 15, 2015, held directly by Essex Woodlands Health Ventures Fund VIII-A, L.P. (“Essex VIII-A”); 595,753 shares of Series CC convertible preferred stock, 4,896 shares of Series D convertible preferred stock, 10,060 shares of Series E convertible preferred stock, 13,415 shares of Series F convertible preferred stock, and warrants to purchase 5,771 shares of Series E convertible preferred stock held directly by Essex Woodlands Health Ventures Fund VIII-B, L.P. (“Essex VIII-B”). Essex Woodlands Health Ventures L.P. is the general partner of Essex VIII, Essex VIII-A, and Essex VIII-B. Essex Woodlands Health Ventures VII, LLC is the general partner of Essex Woodlands Health Ventures VIII, L.P., Dr. Himawan, James Currie, Marty Sutter, Immanuel Thangaraj, Petri Vainio, Ron Eastman, Steve Wiggins and Guido Neels are the managing directors and general partners of Essex VIII and have shared voting and investment power by majority rule over all the shares held by Essex VIII.

(2) Consists of 6,689,889 shares of Series BB convertible preferred stock, 5,296,178 shares of Series CC convertible preferred stock, 68,508 shares of Series D convertible preferred stock, 236,108 shares of Series E convertible preferred stock, 472,217 shares of Series F convertible preferred stock, and 125,623 shares of Series E convertible preferred stock issuable upon the exercise of warrants within 60 days of July 15, 2015, held directly by HealthCare Ventures VIII, L.P. The general partner of HealthCare Ventures VIII, L.P. is HealthCare Partners VIII, L.P. The general partner of HealthCare Partners VIII, L.P. is HealthCare Partners VIII, LLC. Christopher Mirabelli, James Cavanaugh, Augustine Lawlor, John Littlechild and Harold Werner share voting and investment power over the shares held by HealthCare Ventures VIII, L.P.

(3) Consists of 6,501,474 shares of Series BB-1 convertible preferred stock, 4,825,882 shares of Series CC convertible preferred stock, 64,024 shares of Series D convertible preferred stock, 196,757 shares of Series E convertible preferred stock, 472,217 shares of Series F convertible preferred stock, and 109,390 shares of Series E convertible preferred stock issuable upon the exercise of warrants within 60 days of May 15, 2015,

held directly by Johnson & Johnson Innovation-JJDC, Inc. (“JJDC”), of which Dr. Xavier is Vice President, Venture Investments. JJDC has voting and investment power over all shares held by JJDC.

(4) Consists of 6,689,889 shares of Series BB convertible preferred stock, 5,296,178 shares of Series CC convertible preferred stock, 68,508 shares of Series D convertible preferred stock, 192,080 shares of Series E convertible preferred stock, 314,811 shares of Series F convertible preferred stock, and 92,106 shares of Series E convertible preferred stock issuable upon the exercise of warrants within 60 days of July 15, 2015, held by Morgenthaler Partners VIII, L.P. (“MP LP”). Morgenthaler Management Partners VIII, LLC (“MMP LLC”) is the sole general partner of MP LP. Dr. Christoffersen, Robin Bellas, John Lutsi, Gary Morgenthaler, Bob Pavey, Gary Little, Hank Plain, Peter Taft and Scott Walters, the managing members of MMP LLC (the “MP Managing Members”), together with MMP LLC, share voting control and investment power over the securities held by MP LP. MMP LLC and the MP Managing Members disclaim beneficial ownership over the securities held by MP LP except to the extent of their pecuniary interests therein.

(5) Consists of 2,833,333 shares of Series AA convertible preferred stock, 3,856,556 shares of Series BB convertible preferred stock, 3,719,135 shares of Series CC convertible preferred stock, 12,062 shares of Series D convertible preferred stock, 39,351 Series E convertible preferred stock, 259,719 shares of Series F convertible preferred stock, and 34,867 shares of Series E convertible preferred stock issuable upon the exercise of warrants within 60 days of July 15, 2015 held directly by Sofinnova Venture Partners VI, L.P. (“Sofinnova VI”), a nominee for Sofinnova VI, Sofinnova Venture Partners VI GmbH & CO., K.G. (“SVP VI KG”), and Sofinnova Venture Affiliates VI, L.P (“SVA VI”). SM VI, the general partner of Sofinnova VI and SVA VI and the managing limited partner of SVP VI KG, may be deemed to have sole voting and dispositive power of such shares, and Alain L. Azan, Dr. Michael F. Powell, Dr. James I. Healy and Eric P. Buatois, the managing members of SM VI, may be deemed to have shared power to vote and dispose of such shares. Each of such individuals disclaims beneficial ownership of such shares except to the extent for their respective pecuniary interest therein.

(6) Consists of 1,500,000 shares of Series AA convertible preferred stock, 1,967,615 shares of Series BB convertible preferred stock, 2,397,623 shares of Series CC convertible preferred stock, 220,370 shares of Series D convertible preferred stock, 102,674 shares of Series E convertible preferred stock, 472,217 shares of Series F convertible preferred stock, and 60,422 shares of Series E convertible preferred stock issuable upon the exercise of warrants within 60 days of July 15, 2015 held directly by Rosetta Capital V G.P. (the “GP”) Limited for and on behalf of Rosetta Capital V L.P. The GP has management control over all of the shares held by the GP. Jonathan Hepple, Graham Fagg, Torsten Goesch and Michael Forer are the directors of the GP.

(7) Consists of 1,574,091 shares of common stock, 15,742 shares of Series D convertible preferred stock held by the Usman Family Trust, of which Dr. Usman is a co-trustee with Susan L. Usman, 3,046 shares of Series E convertible preferred stock held by the Usman Family Trust, of which Dr. Usman is a co-trustee with Susan L. Usman, 35,416 shares of Series F convertible preferred stock held by Equity Trust Company as custodian FBO of Nassim Usman IRA, 2,235,071 shares issuable upon the exercise of options within 60 days of July 15, 2015, and 761 shares of Series E convertible preferred stock issuable upon the exercise of warrants within 60 days of May 15, 2015.

(8) Consists of 80,000 shares of common stock, 30,131 shares of Series E convertible preferred stock, 31,481 shares of Series F convertible preferred stock, 77,652 shares issuable upon the exercise of options within 60 days of May 15, 2015, and 7,532 shares of Series E convertible preferred stock issuable upon the exercise of warrants within 60 days of July 15, 2015. Also includes 10,000 shares of common stock beneficially owned by Dr. Selick’s wife.

(9) Consists of 730,000 shares of common stock, 3,046 shares of Series E convertible preferred stock, 7,870 shares of Series F convertible preferred stock, 1,174,581 shares issuable upon the exercise of options within 60 days of May 15, 2015 and 761 shares of Series E convertible preferred stock issuable upon the exercise of warrants within 60 days of July 15, 2015.

(10) Consists of 150,848 shares issuable upon the exercise of options within 60 days of July 15, 2015 and 39,351 shares of Series F convertible preferred stock beneficially owned by the Charles Payne & Nancy Payne 2000 Trust U/A Dated March 9, 2000, of which Mr. Payne is trustee.

(11) Includes 3,638,152 shares issuable upon the exercise of options within 60 days of July 15, 2015.

LEGAL MATTERS

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Boston, Massachusetts, will pass upon the validity of the Targacept common stock, the redeemable convertible notes of Targacept and the common stock of Targacept issuable upon conversion of the redeemable convertible notes offered by this proxy statement/prospectus/information statement.

EXPERTS

The financial statements of Targacept, Inc. at December 31, 2014 and 2013 and for each of the three years in the period ended December 31, 2014 included in the Proxy Statement of Targacept, Inc., which is referred to and made a part of this Prospectus and Registration Statement, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report appearing elsewhere herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

The balance sheets of Catalyst Biosciences, Inc. as of December 31, 2014 and 2013, and the related statements of operations, convertible preferred stock and stockholders' deficit and cash flows for each years in the two-year period ended December 31, 2014, have been audited by EisnerAmper LLP, independent registered public accounting firm, as stated in their report, which is incorporated herein, which report contains an explanatory paragraph that states that Catalyst has incurred recurring losses from operations, and negative cash flow from operations. Such matters raise substantial doubt about Catalyst's ability to continue as a going concern. The financial statements do not include any adjustments that might result from the outcome of this uncertainty. Such financial statements have been incorporated herein in reliance on the report of such firm given their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

Targacept files annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any reports, statements or other information that Targacept files at the SEC public reference room in at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference rooms. Targacept SEC filings are also available to the public from commercial document retrieval services and on the website maintained by the SEC at http://www.sec.gov. Reports, proxy statements and other information concerning Targacept also may be inspected at the offices of the National Association of Securities Dealers, Inc., Listing Section, 1735 K Street, Washington, D.C. 20006.

As of the date of this proxy statement/prospectus/information statement, Targacept has filed a registration statement on Form S-4 to register with the SEC the Targacept common stock that Targacept will issue to Catalyst stockholders in the merger. This proxy statement/prospectus/information statement is a part of that registration statement and constitutes a prospectus of Targacept, as well as a proxy statement of Targacept for its annual stockholders meeting and an information statement for the purpose of Catalyst for its written consent.

Targacept has supplied all information contained in this proxy statement/prospectus/information statement relating to Targacept, and Catalyst has supplied all information contained in this proxy statement/prospectus/information statement relating to Catalyst.

If you would like to request documents from Targacept or Catalyst, please send a request in writing or by telephone to either Targacept or Catalyst at the following addresses:

Targacept, Inc.
100 North Main Street, Suite 1510
Winston-Salem, North Carolina 27101
Telephone: (336) 480-2100
Attn: Chief Financial Officer

Catalyst Biosciences, Inc.
260 Littlefield Ave.
South San Francisco, California 94080
Telephone: (650) 871-0761
Attn: Chief Financial Officer

TRADEMARK NOTICE

Targacept®, Pentad™ and NNR Therapeutics™ are trademarks of Targacept, Inc. in the United States and other jurisdictions. “Catalyst,” the Catalyst logo and other trademarks, service marks, and trade names of Catalyst are registered and unregistered marks of Catalyst Biosciences, Inc. Other third-party logos and product/trade names are registered trademarks or trade names of their respective companies.

OTHER MATTERS

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires Targacept officers and directors, and persons who own more than ten percent of a registered class of Targacept equity securities, to file reports of ownership and changes in ownership with the SEC. Such officers, directors and ten-percent stockholders are also required by SEC rules to furnish Targacept with copies of all forms that they file pursuant to Section 16(a). Based on the Targacept review of the copies of such forms received by it and written representations from certain reporting persons, Targacept believes that during fiscal 2014, its executive officers, directors and ten-percent stockholders complied with all other applicable filing requirements.

Stockholder Proposals

Targacept stockholders are entitled to present proposals for action at a forthcoming meeting if they comply with the requirements of Targacept bylaws and the rules established by the SEC under the Exchange Act. Under these requirements, proposals from Targacept stockholders that are intended to be presented by such stockholders at the 2016 Targacept annual stockholders meeting must be addressed to the Secretary and received in writing at Targacept’s executive offices no later than [●], 2016, unless the date of the 2016 annual stockholders meeting is more than 30 days before or after [●], 2016, in which case the deadline is a reasonable time before Targacept begins to print and send its proxy materials. If you wish to submit a proposal that is not to be included in the Targacept proxy materials for next year’s annual meeting pursuant to the SEC’s shareholder proposal procedures or to nominate a director, you must do so no later than [●], 2016; provided that if the date of that annual meeting is more than 30 days before or after [●], 2016, you must give notice not later than the 120th day prior to the annual meeting date and, if later, the 10th day following the day on which public disclosure of the annual meeting date is first made.

Communication with the Targacept Board of Directors

In accordance with Targacept policies regarding communication to non-management members of the Targacept board of directors, stockholders may communicate with such members by sending an email to the Chairman of the Board of Directors at Chairman@Targacept.com. The Chairman of the Board of Directors monitors such communications and provides summaries at regularly scheduled meetings of the board of directors. Where the nature of the communication warrants, the Chairman of the Board of Directors may determine, in his judgment as considered appropriate, to obtain the more immediate attention of the appropriate committee of the board of directors or non-management director, of independent advisors or of management.

INDEX TO THE FINANCIAL STATEMENTS

TARGACEPT, INC.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of
Targacept, Inc.

We have audited the accompanying balance sheets of Targacept, Inc. as of December 31, 2014 and 2013, and the related statements of comprehensive income (loss), stockholders' equity and cash flows for each of the three years in the period ended December 31, 2014. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Targacept, Inc. at December 31, 2014 and 2013, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2014, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Targacept, Inc.'s internal control over financial reporting as of December 31, 2014, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated March 16, 2015 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Raleigh, North Carolina
March 16, 2015

TARGACEPT, INC.

BALANCE SHEETS
(in thousands, except share and par value amounts)

	December 31, 2014	December 31, 2013
ASSETS		
Current assets:		
Cash and cash equivalents	$ 56,430	$ 54,485
Investments in marketable securities—short term	50,955	37,844
Current receivables	141	278
Prepaid expenses	615	999
Total current assets	108,141	93,606
Investments in marketable securities—long term	3,418	51,448
Property and equipment, net	428	682
Intangible assets	—	97
Other assets	12	40
Total assets	$ 111,999	$ 145,873
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 405	$ 1,296
Accrued expenses	2,509	8,830
Current portion of long-term debt	—	853
Total current liabilities	2,914	10,979
Long-term debt, net of current portion	—	283
Total liabilities	2,914	11,262
Commitments and contingencies		
Stockholders' equity:		
Common stock, $0.001 par value, 100,000,000 shares authorized; 34,306,435 and 33,718,179 shares issued at December 31, 2014 and 2013, respectively; 33,793,735 and 33,718,179 shares outstanding at December 31, 2014 and 2013, respectively	34	34
Preferred stock, $0.001 par value, 5,000,000 shares authorized; 0 shares issued and outstanding at December 31, 2014 and 2013	—	—
Capital in excess of par value	422,303	415,123
Accumulated other comprehensive income	4	87
Accumulated deficit	(313,256)	(280,633)
Total stockholders' equity	109,085	134,611
Total liabilities and stockholders' equity	$ 111,999	$ 145,873

See accompanying notes.

TARGACEPT, INC.

STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(in thousands, except share and per share amounts)

	Year Ended December 31,		
	2014	2013	2012
Operating revenues:			
License fees and milestones from collaborations	$ —	$ 3,536	$ 57,420
Grant and other revenue	275	93	440
Net operating revenues	275	3,629	57,860
Operating expenses:			
Research and development (including stock-based compensation of $1,614, $2,497 and $3,792 in 2014, 2013 and 2012, respectively)	19,499	38,840	49,087
General and administrative (including stock-based compensation of $1,858, $2,719 and $3,956 in 2014, 2013 and 2012, respectively)	10,172	12,005	13,193
Reductions in force (including stock-based compensation of $98 in 2012)	318	—	3,718
Total operating expenses	29,989	50,845	65,998
Loss from operations	(29,714)	(47,216)	(8,138)
Other income (expense):			
Interest income	585	784	1,070
Gain (loss) on sale of property and equipment	13	(213)	55
Interest expense	(23)	(53)	(86)
Total other income (expense)	575	518	1,039
Loss before income taxes	(29,139)	(46,698)	(7,099)
Income tax (expense) benefit	(3,484)	(7)	101
Net loss	$ (32,623)	$ (46,705)	$ (6,998)
Basic and diluted net loss per share	$ (0.97)	$ (1.39)	$ (0.21)
Weighted average common shares outstanding—basic and diluted	33,780,433	33,640,323	33,476,316
Net loss	$ (32,623)	$ (46,705)	$ (6,998)
Unrealized (loss) gain on available-for-sale securities, net	(83)	(114)	165
Comprehensive loss	$ (32,706)	$ (46,819)	$ (6,833)

See accompanying notes.

TARGACEPT, INC.

STATEMENTS OF STOCKHOLDERS' EQUITY
(in thousands, except share amounts)

	Common Stock		Capital in Excess of Par Value	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
Balances at January 1, 2012	33,383,403	$ 33	$401,149	$ 36	$ (226,930)	$ 174,288
Issuance of common stock related to exercise of stock options	231,678	1	613	—	—	614
Stock-based compensation	—	—	7,846	—	—	7,846
Net change in unrealized holding gain on available-for-sale marketable securities	—	—	—	165	—	165
Net loss	—	—	—	—	(6,998)	(6,998)
Comprehensive loss	—	—	—	—	—	(6,833)
Balances at December 31, 2012	33,615,081	34	409,608	201	(233,928)	175,915
Issuance of common stock related to exercise of stock options	103,098	—	299	—	—	299
Stock-based compensation	—	—	5,216	—	—	5,216
Net change in unrealized holding gain on available-for-sale marketable securities, net of taxes	—	—	—	(114)	—	(114)
Net loss	—	—	—	—	(46,705)	(46,705)
Comprehensive loss	—	—	—	—	—	(46,819)
Balances at December 31, 2013	33,718,179	34	415,123	87	(280,633)	134,611
Issuance of common stock related to exercise of stock options	75,556	—	296	—	—	296
Stock-based compensation	—	—	3,472	—	—	3,472
Excess tax benefits from stock-based compensation	—	—	3,412	—	—	3,412
Net change in unrealized holding gain on available-for-sale marketable securities, net of taxes	—	—	—	(83)	—	(83)
Net loss	—	—	—	—	(32,623)	(32,623)
Comprehensive loss	—	—	—	—	—	(32,706)
Balances at December 31, 2014	33,793,735	$ 34	$422,303	$ 4	$ (313,256)	$ 109,085

See accompanying notes.

TARGACEPT, INC.

STATEMENTS OF CASH FLOWS
(in thousands)

	Year Ended December 31,		
	2014	2013	2012
Operating activities			
Net loss	$(32,623)	$(46,705)	$ (6,998)
Adjustments to reconcile net loss to net cash used in operating activities:			
Recognition of deferred revenue	(148)	(3,536)	(57,860)
Amortization of premium on marketable securities, net	775	908	937
Depreciation and amortization	351	547	2,212
Stock-based compensation expense	3,472	5,216	7,846
Loss (gain) on disposal of property and equipment	(14)	213	(55)
Income tax expense (benefit) from other comprehensive income	72	7	(101)
Changes in operating assets and liabilities:			
Current receivable	131	226	(1,162)
Other assets	565	527	2,017
Accounts payable, license fees payable and accrued expenses	(7,212)	1,985	(11,515)
Deferred license fee revenue	148	—	440
Net cash used in operating activities	(34,483)	(40,612)	(64,239)
Investing activities			
Purchase of investments in marketable securities	(7,169)	(57,551)	(120,972)
Proceeds from sale of investments in marketable securities	40,991	69,882	159,538
Purchase of property and equipment	(4)	(92)	(333)
Proceeds from sale of property and equipment	38	1,170	1,589
Net cash provided by investing activities	33,856	13,409	39,822
Financing activities			
Excess tax benefits from stock-based compensation	3,412	—	—
Principal payments on long-term debt	(1,136)	(851)	(1,240)
Proceeds from issuance of common stock, net	296	299	614
Net cash provided by (used in) financing activities	2,572	(552)	(626)
Net increase (decrease) in cash and cash equivalents	1,945	(27,755)	(25,043)
Cash and cash equivalents at beginning of year	54,485	82,240	107,283
Cash and cash equivalents at end of year	$ 56,430	$ 54,485	$ 82,240

See accompanying notes.

TARGACEPT, INC.

NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2014

1. The Company and Nature of Operations

Targacept, Inc., or the Company, is a Delaware corporation formed on March 7, 1997. The Company is a biopharmaceutical company engaged in the development of novel NNR Therapeutics™ to treat patients suffering from serious nervous system and gastrointestinal/genitourinary diseases and disorders. The Company's NNR Therapeutics selectively target neuronal nicotinic receptors, which it refers to as NNRs. Its facilities are located in Winston-Salem, North Carolina.

2. Summary of Significant Accounting Policies

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles, or GAAP, requires management to make estimates and assumptions that affect the amounts of assets, liabilities, revenues and expenses reported in the financial statements and accompanying notes. Actual results could differ from these estimates.

Cash and Cash Equivalents

The Company considers cash equivalents to be those investments which are highly liquid, readily convertible to cash and mature within three months from the date of purchase.

Investments in Marketable Securities

Consistent with its investment policy, the Company invests its cash allocated to fund its short-term liquidity requirements with prominent financial institutions in bank depository accounts and institutional money market funds and the Company invests the remainder of its cash in corporate debt securities and municipal bonds rated at least A quality or equivalent, U.S. Treasury notes and bonds, U.S. and state government agency-backed securities and certificates of deposit.

The Company determines the appropriate classification of marketable securities at the time of purchase and reevaluates its classification as of each balance sheet date. All marketable securities owned during 2014 and 2013 were classified as available-for-sale. The cost of securities sold is based on the specific identification method. Investments in marketable securities are recorded as of each balance sheet date at fair value, with unrealized gains and, to the extent deemed temporary, unrealized losses included in stockholders' equity. Interest and dividend income on investments in marketable securities, accretion of discounts and amortization of premiums and realized gains and losses are included in interest income in the statement of comprehensive income (loss).

An investment in marketable securities is considered to be impaired when a decline in fair value below its cost basis is determined to be other than temporary. The Company evaluates whether a decline in fair value of an investment in marketable securities below its cost basis is other than temporary using available evidence. In the event that the cost basis of the investment exceeds its fair value, the Company evaluates, among other factors, the amount and duration of the period that the fair value is less than the cost basis, the financial health of and business outlook for the issuer, including industry and sector performance and operational and financing cash flow factors, overall market conditions and trends, the Company's intent to sell the investment and whether it is more likely than not the Company would be required to sell the investment before its anticipated recovery. If a decline in fair value is determined to be other than temporary, the Company records an impairment charge in the statement of comprehensive income (loss) and establishes a new cost basis in the investment.

TARGACEPT, INC.

NOTES TO FINANCIAL STATEMENTS (continued)
DECEMBER 31, 2014

2. Summary of Significant Accounting Policies (continued)

Receivables

The Company's current receivables at December 31, 2014 and 2013 are primarily related to the Company's sale of equipment as a result of the Company closing its laboratory operations and the Company's service revenue. During 2014, 2013 and 2012, the Company sold equipment with a net book value of $4,000, $519,000 and $1,534,000, respectively, of which $13,000, $183,000 and $1,046,000 was receivable at December 31, 2014, 2013 and 2012, respectively.

Long-lived Assets

Property and equipment consists primarily of laboratory equipment, office furniture and fixtures and leasehold improvements and is recorded at historical cost, net of accumulated depreciation. Depreciation is computed using the straight-line method over the estimated useful lives of the assets. Equipment is typically depreciated over 3 to 5 years, office furniture and fixtures are typically depreciated over 7 years, and leasehold improvements are typically amortized over the lesser of the asset life or the lease term.

The Company capitalizes the costs of intellectual property acquired or licensed from external sources as intangible assets if, at the time of acquisition, the intellectual property has reached technological feasibility. Intellectual property acquired or licensed from external sources that has not reached technological feasibility at the time of acquisition or that has no expected future use is charged to research and development expense as incurred. The Company records all other charges related to the filing, prosecution and maintenance of patents to expense as incurred.

The Company assesses the net realizable value of its long-lived assets and evaluates these assets for impairment whenever events or changes in business circumstances indicate that the carrying amount of an asset may not be recoverable. An impairment charge would be recognized when estimated undiscounted future cash flows expected to result from the use of the asset and its eventual disposition are less than its carrying amount. An impairment charge, if recognized, would be based on the excess of the carrying value of the impaired asset over its estimated fair value.

Research and Development Expense

Research and development costs are expensed as incurred and include direct costs incurred to third parties related to research or development of the Company's product candidates, salaries of, and stock-based compensation for, personnel involved in research and development activities, contractor fees, administrative expenses and allocations of research and development-related overhead costs. Administrative expenses and research and development-related overhead costs included in research and development expense consist of allocations of facility and equipment lease charges, depreciation and amortization of assets, and insurance, legal and supply costs that are directly related to research and development activities. For the year ended December 31, 2014 the Company recorded insurance proceeds of $790,000 related to clinical trial material manufacturing, as a reduction to research and development expense. The Company directly reduces research and development expenses for amounts reimbursed pursuant to the cost-sharing agreements described in Note 12.

Accrued Expenses

The Company records accruals based on estimates of the services received, efforts expended and amounts owed pursuant to contracts with clinical trial sites, contract research organizations and other service providers. In

2. Summary of Significant Accounting Policies (continued)

the normal course of business, the Company contracts with third parties to perform various clinical trial and other research and development activities in the ongoing development of potential products. The financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows. Payments under these agreements depend on the performance of services or the achievement of specified events, such as the production of drug substance or clinical trial materials, the recruitment of clinical trial subjects, the completion of portions of a non-clinical study or clinical trial or similar conditions. The objective of the Company's accrual policy is to match the recording of expenses in its financial statements to the actual services received and efforts expended. As such, expense accruals are recognized based on the Company's estimate of the degree of completion of the event or events specified in a particular contract as giving rise to a payment.

Credit Risk

Financial instruments that potentially subject the Company to credit risk consist principally of cash, investments in marketable securities and receivables from collaborations. The Company has established guidelines for investment of its cash that are designed to emphasize safety, liquidity and preservation of capital. The Company places its cash and cash equivalents with prominent financial institutions. At December 31, 2014 and 2013, the Company had deposits in excess of federally insured limits of $52,324,000 and $57,485,000, respectively.

Revenue Recognition

The Company uses the revenue recognition guidance established by Financial Accounting Standards Board, or FASB, Accounting Standards Codification, or ASC, Topic 605, *Revenue Recognition*, or ASC 605. In determining the accounting for collaboration and alliance agreements, the Company follows the provisions of ASC 605, Subtopic 25, *Multiple Element Arrangements*, or ASC 605-25. ASC 605-25 provides guidance on whether an arrangement that involves multiple revenue-generating activities or deliverables should be divided into separate units of accounting for revenue recognition purposes and, if division is required, how the arrangement consideration should be allocated among the separate units of accounting. If the arrangement constitutes separate units of accounting according to the separation criteria of ASC 605-25, the consideration received is allocated among the separate units of accounting and the applicable revenue recognition criteria must be applied to each unit. If the arrangement constitutes a single unit of accounting, the revenue recognition policy must be determined for the entire arrangement and the consideration received is recognized over the period of inception through the date on which the last deliverable within the single unit of accounting is expected to be delivered. Revisions to the estimated period of recognition are reflected in revenue prospectively.

Non-refundable upfront fees, which may include, for example, an initial payment upon effectiveness of the contractual relationship, payment representing a common stock purchase premium or payment to secure a right for a future license, are recorded as deferred revenue and recognized into revenue as license fees and milestones from collaborations on a straight-line basis over the estimated period of the Company's substantive performance obligations. If the Company does not have substantive performance obligations, it recognizes non-refundable upfront fees into revenue through the date the deliverable is satisfied.

Revenue for non-refundable payments based on the achievement of milestone events under collaboration agreements is recognized in accordance with ASC 605, Subtopic 28, *Milestone Method*, or ASC 605-28. Milestone events under the Company's collaboration agreements may include research, development, regulatory,

TARGACEPT, INC.

NOTES TO FINANCIAL STATEMENTS (continued)
DECEMBER 31, 2014

2. Summary of Significant Accounting Policies (continued)

commercialization or sales events. Under ASC 605-28, a milestone payment is recognized as revenue when the applicable event is achieved if the event meets the definition of a milestone and the milestone is determined to be substantive. ASC 605-28 defines a milestone event as an event having all of the following characteristics: (1) there is substantive uncertainty regarding achievement of the milestone event at the inception of the arrangement; (2) the event can only be achieved based, in whole or in part, on either the company's performance or a specific outcome resulting from the company's performance; and (3) if achieved, the event would result in additional payment due to the company. The Company also treats events that can only be achieved based, in whole or in part, on either a third party's performance or a specific outcome resulting from a third party's performance as milestone events if the criteria of ASC 605-28 are otherwise satisfied. A milestone is considered substantive if it meets all of the following criteria: (A) the payment is commensurate with either the Company's performance to achieve the milestone or with the enhancement of the value of the delivered item; (B) the payment relates solely to past performance; and (C) the payment is reasonable relative to all of the deliverables and payment terms within the arrangement. If any of these conditions is not met, the milestone payment is deferred and recognized on a straight-line basis over a period determined as discussed above.

Research and development costs that are reimbursable under collaboration agreements are recorded in accordance with ASC 605, Subtopic 45, *Principal Agent Considerations*. Amounts reimbursed under a cost sharing arrangement are reflected as a reduction of research and development expense.

Grant payments received prior to the Company's performance of work required by the terms of the award are recorded as deferred revenue and recognized as grant revenue as the Company performs the work and incurs qualifying costs. Service revenue is earned and recognized as research or development is performed and related expenses are incurred.

Income Taxes

The Company uses the liability method in accounting for income taxes as required by ASC Topic 740, *Income Taxes*, or ASC 740. Under ASC 740, deferred tax assets and liabilities are recorded for operating loss and tax credit carryforwards and for the future tax consequences attributable to the differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in the results of operations in the period that includes the enactment date. A valuation allowance is recorded to reduce the carrying amounts of deferred tax assets unless it is more likely than not that the assets will be realized. ASC 740 prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. ASC 740 also provides guidance on de-recognition, classification, interest and penalties, accounting in interim periods, disclosures and transition. The Company's policy is to classify any interest recognized in accordance with ASC 740 as interest expense and to classify any penalties recognized in accordance with ASC 740 as an expense other than income tax expense.

Net Income or Loss Per Share

The Company computes net income or loss per share in accordance with ASC Topic 260, *Earnings Per Share*, or ASC 260. Under the provisions of ASC 260, basic net income or loss per share, or Basic EPS, is

TARGACEPT, INC.

NOTES TO FINANCIAL STATEMENTS (continued)
DECEMBER 31, 2014

2. Summary of Significant Accounting Policies (continued)

computed by dividing net income or loss by the weighted average number of common shares outstanding. Diluted net income or loss per share, or Diluted EPS, is computed by dividing net income or loss by the weighted average number of common shares outstanding plus, in the case of diluted net income per share, dilutive common share equivalents outstanding.

The calculations of Basic EPS and Diluted EPS are set forth in the table below (in thousands, except share and per share amounts):

	Year Ended December 31,		
	2014	2013	2012
Basic and diluted:			
Net loss	$ (32,623)	$ (46,705)	$ (6,998)
Weighted average common shares—basic and diluted	33,780,433	33,640,323	33,476,316
Basic and diluted EPS	$ (0.97)	$ (1.39)	$ (0.21)

Common share equivalents consist of the incremental common shares that would be outstanding upon the exercise of stock options, calculated using the treasury stock method. For each of the years ended December 31, 2014, 2013 and 2012, the Company excluded all common share equivalents from the calculation of Diluted EPS because the Company had a net loss. As a result, Diluted EPS is identical to Basic EPS for those years. If the Company had been in a net income position for the years ended December 31, 2014, 2013 or 2012, 4,683,263, 4,364,064 and 4,250,964 shares, respectively, subject to outstanding stock options may have been included in the calculation of common share equivalents using the treasury stock method.

Stock-Based Compensation

The Company has two stock-based incentive plans, the 2000 Equity Incentive Plan of Targacept, Inc., as amended and restated through March 15, 2006, or the 2000 Plan, and the Targacept, Inc. 2006 Stock Incentive Plan, as amended and restated through March 9, 2011 and further amended on December 7, 2012, March 13, 2013 and April 10, 2013, or the 2006 Plan. The 2000 Plan and the 2006 Plan, or the Plans, are described more fully in Note 9.

The Company records stock-based compensation under the fair value recognition provisions of ASC Topic 718, *Compensation – Stock Compensation*, or ASC 718. Under ASC 718, the Company calculates the fair value of each option grant using the Black-Scholes-Merton valuation formula. The fair value of each grant is recorded as expense on a straight-line basis over the option's vesting period.

ASC 718 also requires the benefits of tax deductions in excess of recognized compensation expense to be reported as a financing cash flow. This requirement reduces net operating cash flows and increases net financing cash flows for periods after adoption. The Company cannot estimate the future effect of excess tax deductions or shortfalls on cash flows because they depend on, among other things, when employees exercise stock options and the tax deductions available to the Company at those times.

TARGACEPT, INC.

NOTES TO FINANCIAL STATEMENTS (continued)
DECEMBER 31, 2014

2. Summary of Significant Accounting Policies (continued)

Prepaid Expenses

The Company defers and capitalizes non-refundable advance payments for goods or services to be received in the future. The Company then charges the advance payments to expense ratably as the goods are delivered or the services are rendered. The Company may make adjustments to the amount charged to expense each period if expectations change regarding the timing of delivery of goods or rendering of services.

Fair Value

The carrying amounts of cash and cash equivalents, investments in marketable securities, receivables, accounts payable and accrued expenses are considered to be representative of their respective fair values due to their short-term natures and, in the case of investments in marketable securities, their market interest rates. Likewise, the carrying amounts of the Company's long-term debts are considered to be representative of their fair value due to their respective market interest rates.

The Company follows ASC Topic 820, *Fair Value Measurements and Disclosures*, or ASC 820, for application to financial assets. ASC 820 defines fair value, provides a consistent framework for measuring fair value under GAAP and requires fair value financial statement disclosures. ASC 820 applies only to the measurement and disclosure of financial assets that are required or permitted to be measured and reported at fair value under other ASC topics (except for standards that relate to share-based payments such as ASC Topic 718, *Compensation – Stock Compensation*).

The valuation techniques required by ASC 820 may be based on either observable or unobservable inputs. Observable inputs reflect readily obtainable data from independent sources, and unobservable inputs reflect the Company's market assumptions. These inputs are classified into the following hierarchy:

Level 1 Inputs—quoted prices (unadjusted) in active markets for identical assets that the reporting entity has the ability to access at the measurement date;

Level 2 Inputs—inputs other than quoted prices included within Level 1 that are observable for the asset, either directly or indirectly; and

Level 3 Inputs—unobservable inputs for the assets.

TARGACEPT, INC.

NOTES TO FINANCIAL STATEMENTS (continued)
DECEMBER 31, 2014

2. Summary of Significant Accounting Policies (continued)

The following tables present the Company's investments in marketable securities (including, if applicable, those classified on the Company's balance sheet as cash equivalents) that are measured at fair value on a recurring basis as of December 31, 2014 and 2013, respectively:

December 31, 2014	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
		(in thousands)	
U.S. Treasury and U.S. or state government agency-backed securities	$22,685	$ —	$ —
Corporate debt securities	—	30,372	—
Municipal bonds	—	1,075	—
Accrued interest	241	—	—
Total cash equivalents and marketable securities	$22,926	$ 31,447	$ —

December 31, 2013	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
		(in thousands)	
U.S. Treasury and U.S. or state government agency-backed securities	$37,029	$ —	$ —
Corporate debt securities	—	43,347	—
Municipal bonds	—	3,509	—
Certificates of deposit	5,000	—	—
Accrued interest	407	—	—
Total cash equivalents and marketable securities	$42,436	$ 46,856	$ —

Corporate debt securities and municipal bonds are valued based on various observable inputs such as benchmark yields, reported trades, broker/dealer quotes, benchmark securities and bids.

Accumulated Other Comprehensive Income or Loss

Accumulated other comprehensive income or loss, as presented in stockholders' equity on the Company's balance sheet, reflects the cumulative net unrealized gains or losses on available-for-sale securities for all periods. The table below reflects changes in accumulated other comprehensive income for the year ended December 31, 2014, in thousands.

Accumulated other comprehensive income, January 1, 2014	$ 87
Unrealized loss on available-for-sale securities, net	(147)
Net realized gains on available-for sale securities reclassified out of other comprehensive income	(8)
Income taxes	72
Accumulated other comprehensive income, December 31, 2014	$ 4

TARGACEPT, INC.

NOTES TO FINANCIAL STATEMENTS (continued)
DECEMBER 31, 2014

2. Summary of Significant Accounting Policies (continued)

Recent Accounting Pronouncements

In May 2014, the FASB issued Accounting Standards Update 2014-09, *Revenue from Contracts with Customers*, or ASU 2014-09. ASU 2014-09 develops a common revenue standard for GAAP and International Financial Reporting Standards and supersedes most current revenue recognition guidance. ASU 2014-09 outlines a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and requires a company to recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the Company expects to be entitled in exchange for those goods or services. ASU 2014-09 is effective for fiscal years, and interim periods within those years, beginning after December 15, 2016. The Company is currently evaluating the impact that the implementation of ASU 2014-09 will have on the Company's financial statements.

3. Investments in Marketable Securities

The following is a reconciliation of amortized cost to fair value of available-for-sale marketable securities (including those classified on the Company's balance sheet as cash equivalents) held at December 31, 2014 and 2013:

December 31, 2014	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
		(in thousands)		
Security type				
Marketable Securities—Short term				
U.S. Treasury and U.S. or state government agency-backed securities	$ 22,677	$ 9	$ (1)	$22,685
Corporate debt securities	27,240	19	(4)	27,255
Municipal Bonds	780	1	—	781
Accrued interest	234	—	—	234
Marketable Securities—Long term				
Corporate debt securities—long term	3,114	4	(1)	3,117
Municipal Bonds	295	—	(1)	294
Accrued interest	7	—	—	7
Total available-for-sale marketable securities	$ 54,347	$ 33	$ (7)	$54,373

TARGACEPT, INC.

NOTES TO FINANCIAL STATEMENTS (continued)
DECEMBER 31, 2014

3. Investments in Marketable Securities (continued)

December 31, 2013	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
		(in thousands)		
Security type				
Marketable Securities—Short term				
U.S. Treasury and U.S. or state government agency-backed securities	$ 16,352	$ 39	$ —	$16,391
Corporate debt securities	14,307	35	—	14,342
Municipal bonds	1,910	3	—	1,913
Certificates of deposit	5,000	—	—	5,000
Accrued interest	198	—	—	198
Marketable Securities—Long term				
U.S. Treasury and U.S. or state government agency-backed securities	20,628	14	(4)	20,638
Corporate debt securities—long term	28,909	101	(5)	29,005
Municipal bonds	1,598	4	(6)	1,596
Accrued interest	209	—	—	209
Total available-for-sale marketable securities	$ 89,111	$ 196	$ (15)	$89,292

As of December 31, 2014, the Company held investments in marketable securities with unrealized gains of $33,000 and unrealized losses of $7,000. As of December 31, 2014, the Company's investments in marketable securities reach maturity between January 9, 2015 and December 12, 2016, with a weighted average maturity date of approximately June 24, 2015.

4. Property and Equipment

As of the respective dates shown, property and equipment consisted of the following:

	December 31,	
	2014	2013
	(in thousands)	
Equipment	$ 62	$ 165
Office furniture and fixtures	2,015	2,373
Leasehold improvements	22	22
	2,099	2,560
Less: accumulated depreciation	(1,671)	(1,878)
Property and equipment, net	$ 428	$ 682

The Company recorded $254,000, $505,000 and $2,195,000 of depreciation expense for the years ended December 31, 2014, 2013 and 2012, respectively. During the year ended December 31, 2012, the Company closed its laboratory operations and completed two reductions in force (see Note 13). In connection with the reductions in force, the Company sold laboratory equipment and office furniture and fixtures with a book value of $4,000, $519,000 and $1,534,000 for the year ended December 31, 2014, 2013 and 2012, respectively, which resulted in a cumulative gain of $14,000, a cumulative loss of $213,000 and a cumulative gain of $55,000 for the year ended December 31, 2014, 2013 and 2012, respectively.

TARGACEPT, INC.

NOTES TO FINANCIAL STATEMENTS (continued)
DECEMBER 31, 2014

5. Intangible Assets

As of the respective dates shown, intangible assets consisted of the following:

	December 31, 2014	December 31, 2013
	(in thousands)	
Patents	$ 296	$ 296
Less: accumulated amortization	(296)	(199)
Total	$ —	$ 97

Intangible assets consisted of licensed patent rights assigned to the Company by Layton Bioscience, Inc. in 2002, which had an original value to the Company of $296,000. During 2014, as a result of recent clinical trial failures of a compound, the licensed patent rights of which were assigned to Targacept, the Company determined the intangible assets were impaired and recorded an expense for the full remaining carrying value in general and administrative expenses.

6. Accrued Expenses

As of the respective dates shown, accrued expenses consisted of the following:

	December 31, 2014	December 31, 2013
	(in thousands)	
Clinical trial and nonclinical study costs	$1,891	$7,578
Employee compensation	590	1,200
Other	28	52
Total	$2,509	$8,830

7. Long-term Debt

In July 2010, the Company entered into a loan agreement with a bank that provides aggregate borrowing capacity of $4,000,000 to be provided in up to three individual term loans on or prior to June 30, 2011 to fund the purchase of equipment, furnishings, software and other fixed assets. The Company borrowed $1,228,000 under the loan agreement in September 2010 and borrowed an additional $2,132,000 in June 2011. The Company's September 2010 borrowing bears interest at a fixed rate of 3.40% per annum and is repayable in equal monthly installments of $28,000 beginning January 1, 2011 through the maturity date of December 1, 2014. The Company's June 2011 borrowing bears interest at a fixed rate of 3.471% per annum and is repayable in equal monthly installments of $48,000 beginning July 1, 2011 through the maturity date of June 1, 2015. Pursuant to the loan agreement, the Company granted a first priority security interest in favor of the bank in assets acquired with the proceeds of the loan. The September 2010 borrowing was paid and satisfied in full in November 2014, and the June 2011 borrowing was paid and satisfied in full in December 2014.

In March 2008, the Company entered into a loan agreement with a bank that provided borrowing capacity of $5,300,000 to fund the purchase of equipment, furnishings, software and other fixed assets and enable the refinancing of an existing loan facility with another lender. The Company borrowed $4,811,000 upon entering into the loan agreement and borrowed the remaining $489,000 in September 2008. The Company's March 2008 borrowing bore interest at a fixed rate of 5.231% per annum and was repayable in equal monthly installments of $112,000 beginning April 1, 2008 through the maturity date of March 1, 2012. The March 2008 borrowing was

TARGACEPT, INC.

NOTES TO FINANCIAL STATEMENTS (continued)
DECEMBER 31, 2014

7. Long-term Debt (continued)

paid and satisfied in full on March 1, 2012. The Company used $1,679,000 of the proceeds from the March 2008 borrowing to pay and satisfy in full the principal and interest outstanding on two tranches of the existing loan facility with another lender. The Company's September 2008 borrowing bore interest at a fixed rate of 6.131% per annum and was repayable in equal monthly installments of $11,000 beginning October 1, 2008 through the maturity date of September 1, 2012. The September 2008 borrowing was paid and satisfied in full in August 2012.

As of December 31, 2014, the Company had no remaining unpaid balance related to its loan agreements. The Company paid $26,000, $56,000 and $91,000 in interest under notes payable during the years ended December 31, 2014, 2013 and 2012, respectively.

8. Income Taxes

For the year ended December 31, 2012, the Company recognized $101,000 of income tax benefit as a result of the application of intraperiod tax allocation provisions of ASC 740, under which the Company is required to consider all items (including items recorded in other comprehensive income) in determining the amount of tax benefit that should be allocated to net loss. The non-cash income tax benefit was offset in full by income tax expense recorded in other comprehensive income. The Company recorded $72,000 and $7,000 income tax expense for the years ended December 31, 2014 and 2013, respectively, and a corresponding income tax benefit in other comprehensive income for each period, as the available-for-sale securities began to be sold.

Because the Company has incurred cumulative net operating losses since inception, all tax years remain open to examination by U.S. federal, North Carolina and Massachusetts tax authorities. An examination of the Company's 2010 federal income tax return was completed in 2014 and resulted in an adjustment that increased taxable income for 2010 by $15,064,000, decreased taxable income for 2011 by $1,076,000, and decreased taxable income for 2012 by $13,988,000. The examination adjustment had no cumulative effect on federal net operating loss carryforwards. The examination adjustment to the Company's 2010 federal income tax return resulted in the realization of an additional $3,412,000 of excess tax deductions and an offsetting charge to income tax expense for the year ended December 31, 2014. The excess tax deductions were the result of exercises of stock options in periods of net income that gave rise to tax deductions for stock-based compensation in excess of expense recorded for the stock options under GAAP. For the years shown, components of the Company's income tax expense (benefit) were as follows:

	Year Ended December 31,		
	2014	2013	2012
		(in thousands)	
Current:			
Federal	$ 3,412	$ —	$ —
State	—	—	—
Net current income tax (benefit) expense	3,412	—	—
Deferred:			
Federal	(13,477)	(18,076)	(1,128)
State	(1,488)	1,010	(718)
Valuation allowance	15,037	17,073	1,745
Net deferred income tax expense (benefit)	72	7	(101)
Net income tax expense (benefit)	$ 3,484	$ 7	$ (101)

TARGACEPT, INC.

NOTES TO FINANCIAL STATEMENTS (continued)
DECEMBER 31, 2014

8. Income Taxes (continued)

The following is a reconciliation from the federal income tax rate to the Company's effective tax rate.

	Year Ended December 31,		
	2014	2013	2012
Expected federal income tax benefit/expense at statutory rate	35%	35%	35%
Increase (decrease) resulting from:			
Research and development credits	2	4	—
Stock-based compensation	(1)	(1)	(15)
State income tax expense, net of federal benefit	3	4	2
Change in state rates	—	(6)	—
Change in unrecognized tax benefit reserves	1	—	—
Change in valuation allowance	(52)	(37)	(25)
Other	—	—	4
	(12)%	(1)%	1%

At December 31, 2014, 2013 and 2012, the Company had net operating loss carryforwards for federal income tax purposes of $259,168,000, $233,170,000, and $187,752,000, respectively, and for state income tax purposes of $244,994,000, $219,792,000 and $176,296,000, respectively. At December 31, 2014, 2013 and 2012, the Company had research and development income tax credit carryforwards for federal income tax purposes of $13,468,000, $12,773,000 and $10,762,000, respectively. The Company had research and development income tax credit carryforwards for state income tax purposes of $587,000 at December 31, 2014, 2013 and 2012. The federal net operating loss carryforwards begin to expire in 2024. The state net operating loss carryforwards begin to expire in 2019. The federal and state research and development tax credits begin to expire in 2021.

Utilization of the net operating loss carryforwards and credits may be subject to a substantial annual limitation due to ownership change limitations provided by Section 382 of the Internal Revenue Code of 1986, as amended, and similar state provisions. A series of stock issuances gave rise to such an ownership change in December 2004. As a result, an annual limitation is imposed on the Company's use of net operating loss and credit carryforwards attributable to periods before the change.

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. The Company's net deferred tax assets relate principally to its research and development tax credits and net operating loss carryforwards. A valuation allowance has been recognized to offset the deferred tax assets. If and when recognized, the tax benefit for those items will be reflected in the period in which the benefit is recorded as a reduction of income tax expense. However, in the event the Company has excess tax deductions related to the exercise of stock options, the tax benefit will be reflected as an increase to capital in excess of par value. The utilization of the loss carryforwards to reduce future income taxes will depend on the Company's ability to generate sufficient taxable income prior to the expiration of the net operating loss carryforwards. The valuation allowance increased by $15,026,000 and $17,110,000 for the years ended December 31, 2014 and 2013, respectively.

TARGACEPT, INC.

NOTES TO FINANCIAL STATEMENTS (continued)
DECEMBER 31, 2014

8. Income Taxes (continued)

As of the respective dates shown, significant components of the Company's deferred tax assets (liabilities) were as follows:

	December 31,	
	2014	2013
	(in thousands)	
Deferred tax assets:		
Net operating loss carryforward	$ 94,756	$ 81,183
Research and development tax credit	12,739	12,044
Stock-based compensation	7,317	6,498
Patents	1,500	1,641
Collaboration revenue	—	—
Other	26	36
Total gross deferred tax assets	116,338	101,402
Valuation allowance	(116,237)	(101,211)
Net deferred tax asset	101	191
Deferred tax liabilities		
Equipment and other	(101)	(191)
Net deferred tax asset	$ —	$ —

As of December 31, 2014, the Company had cumulative tax deductions from exercises of stock options in excess of expense recorded for the stock options under GAAP. The $3,915,000 benefit of these excess tax deductions had not begun to be realized as of December 31, 2014 because the Company incurred operating losses in the years the respective stock options were exercised and has incurred cumulative net operating losses since inception. Accordingly, the tax benefit will not be recognized as an increase to capital in excess of par value unless and until the excess deductions reduce income taxes payable.

The Company follows the provisions of ASC 740, which prescribes a threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return and also provides guidance on de-recognition, classification, interest and penalties, accounting in interim periods and disclosures. A reconciliation of beginning and ending unrecognized tax benefits is as follows (in thousands).

Balance at January 1, 2012	$1,474
Additions (decreases) based on tax positions related to current and prior years	—
Balance at December 31, 2012	1,474
Additions (decreases) based on tax positions related to current and prior years	2
Balance at December 31, 2013	1,476
Additions (decreases) based on tax positions related to current and prior years	(159)
Balance at December 31, 2014	$1,317

None of the unrecognized tax benefits would, if recognized, affect the effective tax rate because the Company has recorded a valuation allowance to fully offset federal and state deferred tax assets. The Company has no tax positions for which it is reasonably possible that the total amount of unrecognized tax benefits will

TARGACEPT, INC.

NOTES TO FINANCIAL STATEMENTS (continued)
DECEMBER 31, 2014

8. Income Taxes (continued)

significantly increase or decrease during 2015. No interest or penalties with respect to unrecognized tax positions are recognized in the statement of comprehensive income (loss) for any of the years ended December 31, 2014, 2013 or 2012.

9. Stock-Based Incentive Plans

The 2000 Plan became effective in August 2000. The 2006 Plan became effective in April 2006 and is the successor equity incentive program to the 2000 Plan. All shares previously reserved under the 2000 Plan and not subject to outstanding awards under the 2000 Plan are now reserved for grant under the 2006 Plan. As of December 31, 2014, the number of shares authorized for issuance under the Plans was 7,033,298, of which 3,149,324 shares remained available for grant.

Awards may be made with respect to the 2006 Plan, or may have been made with respect to both Plans, to participants under the Plans in the form of incentive and nonqualified stock options, restricted stock (or unvested stock awards), stock appreciation rights, stock awards, and performance awards. As of December 31, 2014, the company has granted stock options and unvested stock awards under the Plans. Eligible participants under the Plans include employees, directors and certain independent contractors, consultants or advisors of the Company or a related corporation. Awards made under the Plans have vesting periods that are determined at the discretion of the administrator and range from 0 to 5 years and most commonly have 10-year contractual terms or, in some cases, shorter terms designed to comply with Section 409A of the Internal Revenue Code. The exercise price of stock options granted under the Plans may not be less than 100% of the fair market value of the common stock on the date of grant, as determined by the administrator.

In addition to awards made under the Plans, on December 3, 2012, the Company granted a nonqualified option to purchase 400,000 shares of its common stock pursuant to an employment agreement entered into by the Company in connection with the hire of its president and chief executive officer. The option, which was not granted pursuant to a Plan, has similar terms to nonqualified stock options granted under the 2006 Plan.

Under ASC 718, the Company recognizes the grant date fair value of stock awards issued to employees and non-employee directors over the requisite service periods, which are typically the vesting periods. The Company uses the Black-Scholes-Merton formula to estimate the fair value of its stock options. The volatility assumption used in the Black-Scholes-Merton formula is primarily based on the Company's implied volatility, the calculated historical volatility of twelve to sixteen benchmark companies in the Company's industry that have been identified as comparable public entities, the Company's historical volatility and the implied volatility of the same benchmark companies. The expected term for stock options granted during 2014, 2013 and 2012 is based on historical analysis. The risk-free rate for periods within the contractual life of the option is based on the U.S. Treasury yield curve in effect at the time of grant.

The following table illustrates the weighted average assumptions for the Black-Scholes-Merton model used in determining the fair value of stock options granted as of the respective dates shown:

	Year Ended December 31,		
	2014	2013	2012
Dividend yield	—	—	—
Risk-free interest rate	1.8%	1.1%	1.0%
Volatility	111%	82%	69%
Expected term	5.63 years	5.73 years	6.16 years

TARGACEPT, INC.

NOTES TO FINANCIAL STATEMENTS (continued)
DECEMBER 31, 2014

9. Stock-Based Incentive Plans (continued)

During 2013 and 2012, the Company partially accelerated the vesting of, and/or extended the permitted period for exercise for, some outstanding stock options held by several employees who departed the Company. These modifications resulted in incremental compensation cost recorded by the Company for the year ended December 31, 2013 and 2012 of $573,000 and $1,397,000, respectively.

A summary of option activity and changes during the year ended December 31, 2014 appears below.

	Shares Subject to Options	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value (in thousands)
Outstanding at January 1, 2014	4,539,628	$ 9.93		
Granted	935,368	4.68		
Forfeited	(1,515,466)	9.53		
Exercised	(75,556)	3.93		
Outstanding at December 31, 2014	3,883,974	$ 8.93	5.21	$ 2
Vested and exercisable at December 31, 2014	2,838,812	$ 10.49	3.98	$ 1

The weighted average grant date fair value of options granted during the years ended December 31, 2014, 2013, and 2012 was $3.85, $3.38 and $2.98, respectively. The total intrinsic value of options exercised during the years ended December 31, 2014, 2013, and 2012 was $60,000, $200,000, and $472,000, respectively. During 2014 and 2013, respectively, 12,171 and 176,102 shares subject to options expired upon reaching the 10-year contractual term, and are included in the “Forfeited” amount in the table above.

A summary of the status of non-vested stock options outstanding as of December 31, 2014 and changes during the year ended December 31, 2014 appears below.

	Shares Subject to Options	Weighted Average Grant-Date Fair Value Per Share
Non-vested at January 1, 2014	1,357,654	$ 4.04
Granted	935,368	3.85
Vested	(721,385)	4.75
Forfeited	(526,475)	3.82
Non-vested at December 31, 2014	1,045,162	$ 3.50

As of December 31, 2014, there was $3,654,000 of total unrecognized compensation expense related to unvested stock options, before considering forfeitures. That cost is expected to be recorded over a weighted average period of 2.56 years. The total fair value of shares subject to stock options that vested during the years ended December 31, 2014, 2013, and 2012 was $3,427,000, $5,140,000 and $7,836,000, respectively.

TARGACEPT, INC.

NOTES TO FINANCIAL STATEMENTS (continued)
DECEMBER 31, 2014

9. Stock-Based Incentive Plans (continued)

The Company uses the closing price on the date of grant as the fair value of its unvested stock awards. A summary of the status of unvested stock awards as of December 31 and changes during the year ended December 31, 2014 appears below.

	Shares Subject to Options	Weighted Average Grant-Date Fair Value Per Share
Non-vested at January 1, 2014	—	$ —
Granted	567,700	2.36
Vested	—	—
Forfeited	(55,000)	2.36
Non-vested at December 31, 2014	512,700	$ 2.36

As of December 31, 2014, there was $1,111,000 of total unrecognized compensation expense related to unvested stock awards. That cost is expected to be recorded over a weighted average period of 2.00 years. The unvested stock awards are reflected on the Company's balance sheet as "issued" but not "outstanding" at December 31, 2014; and will become "outstanding" as they vest.

The Company had 3,883,974 and 4,539,337 shares of common stock reserved for future issuance upon the exercise of outstanding stock options at December 31, 2014 and 2013, respectively.

On January 21, 2015, the Company granted 111,025 stock options to employees. The stock options will vest over 16 quarters, beginning March 31, 2015.

10. Commitments and Contingencies

Leases

On December 4, 2012, the Company entered into an agreement with B/E Aerospace, Inc. to sublease approximately 18,282 square feet of office space in Winston-Salem, North Carolina. The term of the sublease began on January 1, 2013 and ends on December 30, 2015. The monthly rent payable by the Company under the sublease is approximately $23,000. The sublease is subject to the terms and conditions of the prime lease covering the subleased space between B/E Aerospace and its landlord, SL Winston-Salem, LLC.

The Company has entered into various other lease agreements, primarily for storage space and equipment. The Company's previous office lease expired on December 31, 2012. Rent expense incurred by the Company under the office leases and other operating leases was $541,000, $582,000 and $2,819,000 for the years ended December 31, 2014, 2013 and 2012, respectively.

The following table illustrates expected future lease payments under all operating leases (in thousands):

2015	$356
2016	25
2017	12
2018 and thereafter	—
	$393

10. Commitments and Contingencies (continued)

Employment Arrangements

The Company has entered into employment agreements with some of its employees. Under the agreements, if the Company terminates the employment other than for just cause or if the employee terminates employment for good reason, in each case as that term is defined in the agreement, the employee is entitled, among other things, to receive severance equal to current base salary for from up to 12 to 18 months following termination, depending on the employee and the circumstances of termination. The employee would also be entitled to continuation of the health and life insurance benefits coverage provided as of the date of termination for the period during which he receives severance.

Under an employment agreement with a former executive officer and a related separation agreement and release, the Company paid severance equal to the departing executive's regular base salary as of March 31, 2013 for nine months, a pro rata percentage of the departing executive's target bonus for 2013, and the departing executive's health and life insurance benefits coverage provided to him as of March 31, 2013 for nine months. These payments and benefits, which represent an aggregate amount of $306,000, were recorded as general and administrative expense for the year ended December 31, 2013.

11. Retirement Savings Plan

The Company has a 401(k) retirement plan in which all of its employees are eligible to participate. The Company contributed $194,000, $275,000 and $454,000 to the plan for the years ended December 31, 2014, 2013 and 2012, respectively. The Company matched employee contributions to the plan, on a per employee basis, up to 4% of each employee's wages, subject to statutory limits, for each of the years ended December 31, 2014, 2013 and 2012.

12. Strategic Alliance and Collaboration Agreements

AstraZeneca AB

In December 2005, the Company entered into a collaborative research and license agreement with AstraZeneca AB, or AstraZeneca, that was initially focused in cognitive disorders. In October 2014, AstraZeneca terminated the agreement in its entirety, effective January 2015. When termination of the agreement became effective, all remaining rights and licenses to compounds granted by the Company under the agreement to AstraZeneca were terminated and reverted to the Company, including the rights and license relating to the Company's product candidate TC-6683 (also known as AZD1446).

AstraZeneca paid the Company an initial fee of $10,000,000 under the agreement in February 2006. The initial fee included $5,000,000 for grants of licenses to develop and commercialize the Company's product candidate TC-1734 (formerly known also as AZD3480), which the Company recognized on a straight-line basis over the estimated development period for TC-1734. In September 2010, the Company and AstraZeneca amended the agreement to enable the Company to conduct a clinical trial of TC-1734 in mild to moderate Alzheimer's disease and to provide for respective roles and responsibilities and associated financial terms for such a study. Under the 2010 amendment, the Company received from AstraZeneca cumulative payments of $6,000,000 during 2010 and 2011. At that time, the Company began recognizing the portion of the $5,000,000 received for grants of licenses not yet recognized and the payments received under the 2010 amendment into revenue on a straight-line basis over the period of the Company's substantive performance obligations under the agreement as amended.

12. Strategic Alliance and Collaboration Agreements (continued)

In March 2013, the Company and AstraZeneca amended the agreement to permit AstraZeneca to pursue development and commercialization of compounds it had licensed from the Company in any therapeutic area. Also in March 2013, AstraZeneca exercised its right to terminate TC-1734 from the collaboration. As a result, the Company recognized into revenue during the first quarter of 2013 all of the initial fee and payments received under the 2010 amendment that had not yet been recognized as of the date of AstraZeneca's action, totaling $3,142,000. The Company recognized an aggregate of $3,536,000 and $2,946,000 of the initial fee and the payments received under the 2010 amendment into revenue during the years ended December 31, 2013 and 2012, respectively.

Under the agreement, AstraZeneca paid the Company an aggregate of $88,120,000, including the initial fee and payments upon the achievement of milestone events, to maintain option rights and for research services rendered in the completed preclinical research collaboration. This entire amount had been fully recognized into revenue in previous periods.

Prior Collaboration Agreement

In December 2009, the Company entered into a collaboration and license agreement with AstraZeneca AB for the global development and commercialization of TC-5214 as a treatment for major depressive disorder. Under the agreement, AstraZeneca made an upfront payment to the Company of $200,000,000. The Company recorded the upfront payment made by AstraZeneca as deferred revenue and began recognizing the payment as revenue on a straight-line basis over the estimated period of the Company's substantive performance obligations under the agreement, or approximately 33 months after the agreement date. The Company recognized $54,473,000 of the upfront payment as revenue for the year ended December 31, 2012.

Under the agreement, AstraZeneca was responsible for 80% and the Company was responsible for 20% of the costs of the global development program for TC-5214 in major depressive disorder, except that AstraZeneca was responsible for 100% of development costs that were required only for countries outside the United States and the European Union. In addition, for each of the Company and AstraZeneca, costs that were not contemplated at execution to be part of the program were in some cases excluded from the cost-sharing arrangement.

The Company's portion of the costs of the TC-5214 development program was $2,175,000 for the year ended December 31, 2012. AstraZeneca's allocable portion of the program costs paid by the Company was $127,000 for the year ended December 31, 2012. AstraZeneca's allocable portion of the program costs paid by the Company is reflected in the Company's financial statements as a reduction to research and development expense.

In the first quarter of 2012, the Company and AstraZeneca announced that, based on the totality of the results of the Phase 3 development program for TC-5214, a regulatory submission for TC-5214 as an adjunct therapy for major depressive disorder would not be pursued. Also in the first quarter of 2012, the Company reported that the Company and AstraZeneca determined to discontinue a Phase 2b clinical trial of TC-5214 as a "switch" monotherapy. These determinations resulted in a change in the estimated period of the Company's substantive performance obligations under the agreement, and the Company revised the revenue recognition period for the upfront payment accordingly. As a result, the entire upfront payment was recognized into revenue by June 30, 2012. In April 2012, the Company received notice of termination of the agreement from AstraZeneca. By the terms of the agreement, the termination became effective in May 2012.

TARGACEPT, INC.

NOTES TO FINANCIAL STATEMENTS (continued)
DECEMBER 31, 2014

13. Reductions In Force

On April 25, 2012, the Company announced a reduction in force as part of a plan to focus its resources on its more advanced programs. The restructuring was completed in the second quarter of 2012. The Company recorded $2,312,000 in severance and other charges related to the reduction in force in the year ended December 31, 2012. Upon the completion of the restructuring, the Company's workforce was reduced by 65 employees, or approximately 46%.

On October 8, 2012, the Company announced a further reduction in force and the closing of its laboratory operations. Both of these actions were completed in the fourth quarter of 2012. The Company recorded $1,406,000 in severance and other charges related to the reduction in force in the year ended December 31, 2012. Upon the completion of the restructuring, the Company's workforce was further reduced by 27 employees, or approximately 38%.

In the fourth quarter of 2014, the Company completed a reduction in force, which reduced the Company's workforce by 7 employees, or approximately 26%. The Company recorded $318,000 in severance and other charges related to the reduction in force in the year ended December 31, 2014.

14. Selected Quarterly Financial Data (unaudited)

	2014 Quarter			
	First	Second	Third	Fourth
	(in thousands, except share and per share amounts)			
Net operating revenues	$ 87	$ 36	$ 25	$ 127
Loss from operations	(11,756)	(8,239)	(4,988)	(4,731)
Net loss	(14,999)	(8,136)	(4,860)	(4,628)
Basic net loss per share(1)	$ (0.44)	$ (0.24)	$ (0.14)	$ (0.14)
Weighted average common shares outstanding—basic and diluted(2)	33,746,917	33,786,686	33,793,735	33,793,735

	2013 Quarter			
	First	Second	Third	Fourth
	(in thousands, except share and per share amounts)			
Net operating revenues	$ 3,536	$ —	$ —	$ 93
Loss from operations	(8,274)	(12,488)	(13,146)	(13,308)
Net loss	(8,066)	(12,371)	(12,902)	(13,366)
Basic net loss per share(1)	$ (0.24)	$ (0.37)	$ (0.38)	$ (0.40)
Weighted average common shares outstanding—basic and diluted(2)	33,616,342	33,626,980	33,644,256	33,673,047

(1) Per common share amounts for the quarters and full years have been calculated separately. Accordingly, the sum of quarterly amounts may not equal the annual amount because of differences in the weighted average common shares outstanding during each period, principally due to the effect of share issuances by the Company during the year.

(2) Diluted weighted average common shares outstanding are identical to basic weighted average common shares outstanding and Diluted EPS is identical to Basic EPS for the each quarter of 2014 and 2013 because common share equivalents are excluded from the calculations of diluted weighted average common shares outstanding for those quarters, as their effect is antidilutive.

TARGACEPT, INC.

NOTES TO FINANCIAL STATEMENTS (continued)
DECEMBER 31, 2014

15. Subsequent Event (Unaudited)

The Company and Catalyst Biosciences, Inc. (“Catalyst”) have entered into a definitive Agreement and Plan of Merger dated as of March 5, 2015, and amended on May 6 and May 13, 2015 (the “Merger Agreement”), pursuant to which, among other things, subject to the satisfaction or waiver of the conditions set forth in the Merger Agreement, a wholly-owned subsidiary of the Company’s will be merged with and into Catalyst, with Catalyst continuing as the surviving corporation and a wholly-owned subsidiary of the Company’s (the “Proposed Merger”). Immediately following the effective time of the Proposed Merger, existing Catalyst equity holders are expected to own approximately 58% of the capital stock of the combined company, and existing Targacept equity holders are expected to own approximately 42% of the capital stock of the combined company. Prior to the closing of the Proposed Merger, the Company also expects to distribute to its stockholders a dividend of approximately $37,000,000 in aggregate principal amount of redeemable convertible notes, and approximately $19,000,000 in cash (the “Pre-Closing Dividend”). The notes will be convertible into shares of common stock of the combined company at a conversion rate of $9.19 per share, which represents 130% of the negotiated per share value of the Company’s assets following the anticipated Pre-Closing Dividend, as adjusted to reflect the planned 7-for-1 reverse stock split described elsewhere in this proxy statement/prospectus/information statement. If, in the future, the redeemable convertible notes are fully converted into Targacept common stock, the Company’s stockholders would own approximately 57% of the outstanding capital stock of the combined company on a pro forma basis as of the anticipated closing date.

TARGACEPT, INC.

BALANCE SHEETS
(in thousands, except share and par value amounts)
(unaudited)

	March 31, 2015	December 31, 2014
ASSETS		
Current assets:		
Cash and cash equivalents	$ 73,113	$ 56,430
Investments in marketable securities—short term	31,646	50,955
Current receivables	68	141
Prepaid expenses	409	615
Total current assets	105,236	108,141
Investments in marketable securities—long term	1,518	3,418
Property and equipment, net	373	428
Other assets	9	12
Total assets	$ 107,136	$ 111,999
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 1,189	$ 405
Accrued expenses	2,714	2,509
Total current liabilities	3,903	2,914
Total liabilities	3,903	2,914
Commitments and contingencies		
Stockholders' equity:		
Common stock, $.001 par value, 100,000,000 shares authorized at March 31, 2015 and December 31, 2014, respectively; 34,310,264 and 34,306,435 shares issued at March 31, 2015 and December 31, 2014, respectively; 33,872,314 and 33,793,735 shares outstanding at March 31, 2015 and December 31, 2014, respectively;	34	34
Preferred stock, $0.001 par value, 5,000,000 shares authorized and 0 shares issued and outstanding at September 30, 2014 and December 31, 2014	—	—
Capital in excess of par value	423,184	422,303
Accumulated other comprehensive income	23	4
Accumulated deficit	(320,008)	(313,256)
Total stockholders' equity	103,233	109,085
Total liabilities and stockholders' equity	$ 107,136	$ 111,999

See accompanying notes.

TARGACEPT, INC.

STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(in thousands, except share and per share amounts)
(unaudited)

	Three Months Ended March 31,	
	2015	2014
Operating revenues:		
License fees and milestones from collaborations	$ —	$ —
Grant and other revenue	60	87
Net operating revenues	60	87
Operating expenses:		
Research and development (including stock-based compensation of $112 and $384 for the three months ended March 31, 2015 and 2014, respectively)	2,340	9,080
General and administrative (including stock-based compensation of $339 and $441 for the three months ended March 31, 2015 and 2014, respectively)	3,387	2,763
Reduction in force (including stock-based compensation of $420 for the three months ended March 31, 2015)	1,156	—
Total operating expenses	6,883	11,843
Loss from operations	(6,823)	(11,756)
Other income (expense):		
Interest income	92	178
Interest expense	—	(9)
Total other income (expense)	92	169
Loss before taxes	(6,731)	(11,587)
Income tax expense	(21)	(3,412)
Net loss	$ (6,752)	$ (14,999)
Basic and diluted net loss per share	$ (0.20)	$ (0.44)
Weighted average common shares outstanding—basic and diluted	33,796,380	33,746,917
Net loss	$ (6,752)	$ (14,999)
Unrealized (loss) gain on available-for-sale securities, net	19	(21)
Comprehensive loss	$ (6,733)	$ (15,020)

See accompanying notes.

TARGACEPT, INC.

STATEMENTS OF CASH FLOWS
(in thousands)
(unaudited)

	Three Months Ended March 31,	
	2015	2014
Operating activities		
Net loss	$ (6,752)	$ (14,999)
Adjustments to reconcile net loss to net cash used in operating activities:		
Recognition of deferred revenue	—	(87)
Amortization of premium on marketable securities, net	97	225
Depreciation and amortization	48	69
Stock-based compensation expense	870	825
Income tax expense from other comprehensive income	21	—
Changes in operating assets and liabilities:		
Current receivables	68	(64)
Other assets	294	135
Accounts payable and accrued expenses	907	(1,098)
Deferred revenue	—	148
Net cash used in operating activities	(4,447)	(14,846)
Investing activities		
Purchase of investments in marketable securities	—	(7,146)
Proceeds from sale of investments in marketable securities	21,025	9,069
Proceeds from sale of property and equipment	12	12
Net cash provided by investing activities	21,037	1,935
Financing activities		
Principal payments on long-term debt	—	(218)
Excess tax benefits from stock-based compensation	—	3,412
Proceeds from issuance of common stock, net	93	273
Net cash provided by financing activities	93	3,467
Net increase (decrease) in cash and cash equivalents	16,683	(9,444)
Cash and cash equivalents at beginning of period	56,430	54,485
Cash and cash equivalents at end of period	$73,113	$ 45,041

See accompanying notes.

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS
March 31, 2015

1. The Company and Nature of Operations

Targacept, Inc., or the Company, is a Delaware corporation formed on March 7, 1997. The Company is a biopharmaceutical company that historically has been engaged in the development of novel NNR Therapeutics™ to treat patients suffering from serious nervous system and gastrointestinal/ genitourinary diseases and disorders. The Company's NNR Therapeutics selectively target a class of receptor known as neuronal nicotinic receptors, which it refers to as NNRs. Its facilities are located in Winston-Salem, North Carolina.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying unaudited financial statements have been prepared in accordance with U.S. generally accepted accounting principles, or GAAP, for interim financial information, the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by GAAP for complete financial statements and should be read in conjunction with the Company's audited financial statements and notes thereto included in its Annual Report on Form 10-K for the year ended December 31, 2014. In the opinion of the Company's management, all adjustments, consisting of normal recurring adjustments, necessary for a fair presentation of its financial position, operating results and cash flows for the periods presented have been included. Operating results for the three months ended March 31, 2015, are not necessarily indicative of the results that may be expected for the full year, for any other interim period or for any future year.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts of assets, liabilities, revenues and expenses reported in the financial statements and accompanying notes. Actual results could differ from these estimates.

Fair Value Measurement

The Company follows Financial Accounting Standards Board, or FASB, Accounting Standards Codification, or ASC, Topic 820, *Fair Value Measurements and Disclosures*, or ASC 820, for application to financial assets. ASC 820 defines fair value, provides a consistent framework for measuring fair value under GAAP and requires fair value financial statement disclosures. ASC 820 applies only to the measurement and disclosure of financial assets that are required or permitted to be measured and reported at fair value under other ASC topics (except for standards that relate to share-based payments such as ASC Topic 718, *Compensation—Stock Compensation*).

The valuation techniques required by ASC 820 may be based on either observable or unobservable inputs. Observable inputs reflect readily obtainable data from independent sources, and unobservable inputs reflect the Company's market assumptions. These inputs are classified into the following hierarchy:

Level 1 Inputs—quoted prices (unadjusted) in active markets for identical assets that the reporting entity has the ability to access at the measurement date;

Level 2 Inputs—inputs other than quoted prices included within Level 1 that are observable for the asset, either directly or indirectly; and

Level 3 Inputs—unobservable inputs for the assets.

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
March 31, 2015

2. Summary of Significant Accounting Policies (continued)

The following tables present the Company's investments in marketable securities (including, if applicable, those classified on the Company's balance sheet as cash equivalents) that are measured at fair value on a recurring basis as of March 31, 2015, and December 31, 2014, respectively:

March 31, 2015	Quoted Prices in Active Markets (Level 1)	Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
		(in thousands)	
U.S. Treasury and U.S. or state government agency-backed securities	$14,429	$ —	$ —
Corporate debt securities	—	17,935	—
Municipal bonds	—	644	—
Accrued interest	156	—	—
Total investments in marketable securities	$14,585	$ 18,579	$ —

December 31, 2014	Quoted Prices in Active Markets (Level 1)	Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
		(in thousands)	
U.S. Treasury and U.S. or state government agency-backed securities	$22,685	$ —	$ —
Corporate debt securities	—	30,372	—
Municipal bonds	—	1,075	—
Accrued interest	241	—	—
Total investments in marketable securities	$22,926	$ 31,447	$ —

Corporate debt securities and municipal bonds are valued based on various observable inputs such as benchmark yields, reported trades, broker/dealer quotes, benchmark securities and bids.

Investments in Marketable Securities

Consistent with its investment policy, the Company invests its cash allocated to fund its short-term liquidity requirements with prominent financial institutions in bank depository accounts and institutional money market funds and the Company invests the remainder of its cash in corporate debt securities and municipal bonds rated at least A quality or equivalent, U.S. Treasury notes and bonds and U.S. and state government agency-backed securities.

The Company determines the appropriate classification of marketable securities at the time of purchase and reevaluates its classification as of each balance sheet date. All marketable securities owned during the three months ended March 31, 2015, and March 31, 2014, were classified as available-for-sale. The cost of securities sold is based on the specific identification method. Investments in marketable securities are recorded as of each balance sheet date at fair value, with unrealized gains and, to the extent deemed temporary, unrealized losses included in stockholders' equity. Interest and dividend income on investments in marketable securities, accretion of discounts and amortization of premiums and realized gains and losses are included in interest income in the statement of comprehensive income (loss).

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
March 31, 2015

2. Summary of Significant Accounting Policies (continued)

An investment in marketable securities is considered to be impaired when a decline in fair value below its cost basis is determined to be other than temporary. The Company evaluates whether a decline in fair value of an investment in marketable securities below its cost basis is other than temporary using available evidence. In the event that the cost basis of the investment exceeds its fair value, the Company evaluates, among other factors, the amount and duration of the period that the fair value is less than the cost basis, the financial health of and business outlook for the issuer, including industry and sector performance, and operational and financing cash flow factors, overall market conditions and trends, the Company's intent to sell the investment and whether it is more likely than not the Company would be required to sell the investment before its anticipated recovery. If a decline in fair value is determined to be other than temporary, the Company records an impairment charge in the statement of comprehensive income (loss) and establishes a new cost basis in the investment.

Revenue Recognition

The Company uses the revenue recognition guidance established by ASC Topic 605, *Revenue Recognition*, or ASC 605. In determining the accounting for collaboration and alliance agreements, the Company follows the provisions of ASC 605, Subtopic 25, *Multiple Element Arrangements*, or ASC 605-25. ASC 605-25 provides guidance on whether an arrangement that involves multiple revenue-generating activities or deliverables should be divided into separate units of accounting for revenue recognition purposes and, if division is required, how the arrangement consideration should be allocated among the separate units of accounting. If the arrangement constitutes separate units of accounting according to the separation criteria of ASC 605-25, the consideration received is allocated among the separate units of accounting and the applicable revenue recognition criteria must be applied to each unit. If the arrangement constitutes a single unit of accounting, the revenue recognition policy must be determined for the entire arrangement and the consideration received is recognized over the period of inception through the date on which the last deliverable within the single unit of accounting is expected to be delivered. Revisions to the estimated period of recognition are reflected in revenue prospectively.

Non-refundable upfront fees, which may include, for example, an initial payment upon effectiveness of the contractual relationship, payment representing a common stock purchase premium or payment to secure a right for a future license, are recorded as deferred revenue and recognized into revenue as license fees and milestones from collaborations on a straight-line basis over the estimated period of the Company's substantive performance obligations. If the Company does not have substantive performance obligations, it recognizes non-refundable upfront fees into revenue through the date the deliverable is satisfied.

Revenue for non-refundable payments based on the achievement of milestone events under collaboration agreements is recognized in accordance with ASC 605, Subtopic 28, *Milestone Method*, or ASC 605-28. Milestone events under the Company's collaboration agreements may include research, development, regulatory, commercialization or sales events. Under ASC 605-28, a milestone payment is recognized as revenue when the applicable event is achieved if the event meets the definition of a milestone and the milestone is determined to be substantive. ASC 605-28 defines a milestone event as an event having all of the following characteristics: (1) there is substantive uncertainty regarding achievement of the milestone event at the inception of the arrangement; (2) the event can only be achieved based, in whole or in part, on either the company's performance or a specific outcome resulting from the company's performance; and (3) if achieved, the event would result in additional payment due to the company. The Company also treats events that can only be achieved based, in whole or in part, on either a third party's performance or a specific outcome resulting from a third party's performance as milestone events if the criteria of ASC 605-28 are otherwise satisfied. A milestone is considered substantive if it meets all of the following criteria: (A) the payment is commensurate with either the Company's

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
March 31, 2015

2. Summary of Significant Accounting Policies (continued)

performance to achieve the milestone or with the enhancement of the value of the delivered item; (B) the payment relates solely to past performance; and (C) the payment is reasonable relative to all of the deliverables and payment terms within the arrangement. If any of these conditions is not met, the milestone payment is deferred and recognized on a straight-line basis over a period determined as discussed above.

Research and development costs that are reimbursable under collaboration agreements are recorded in accordance with ASC 605, Subtopic 45, *Principal Agent Considerations*. Amounts reimbursed under a cost sharing arrangement are reflected as a reduction of research and development expense.

Grant payments received prior to the Company's performance of work required by the terms of the award are recorded as deferred revenue and recognized as grant revenue as the Company performs the work and incurs qualifying costs. Service revenue is earned and recognized as research or development is performed and related expenses are incurred.

Income Taxes

The Company uses the liability method in accounting for income taxes as required by ASC Topic 740, *Income Taxes*, or ASC 740. Under ASC 740, deferred tax assets and liabilities are recorded for operating loss and tax credit carryforwards and for the future tax consequences attributable to the differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in the results of operations in the period that includes the enactment date. A valuation allowance is recorded to reduce the carrying amounts of deferred tax assets unless it is more likely than not that the assets will be realized. ASC 740 prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. ASC 740 requires interim income tax expense or benefit to be calculated using an estimated annual effective tax rate. If a reliable estimate of the annual effective tax rate cannot be made, the Company considers the effective tax rate for the year to date to be the best estimate. Accordingly, the income tax provision for the three months ended March 31, 2015, was determined based on the actual year-to-date effective tax rate because a reliable estimate of the annual effective tax rate cannot be made. ASC 740 also provides guidance on de-recognition, classification, interest and penalties, accounting in interim periods, disclosures and transition. The Company's policy is to classify any interest recognized in accordance with ASC 740 as interest expense and to classify any penalties recognized in accordance with ASC 740 as an expense other than income tax expense.

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
March 31, 2015

2. Summary of Significant Accounting Policies (continued)

Net Income or Loss Per Share

The Company computes net income or loss per share in accordance with ASC Topic 260, *Earnings Per Share*, or ASC 260. Under the provisions of ASC 260, basic net income or loss per share, or Basic EPS, is computed by dividing net income or loss by the weighted average number of common shares outstanding. Diluted net income or loss per share, or Diluted EPS, is computed by dividing net income or loss by the weighted average number of common shares outstanding plus, in the case of diluted net income per share, dilutive common share equivalents outstanding. The calculations of Basic EPS and Diluted EPS are set forth in the table below (in thousands, except share and per share amounts).

	Three Months Ended March 31,	
	2015	2014
Basic and diluted:		
Net loss	$ (6,752)	$ (14,999)
Weighted average common shares—basic and diluted	33,796,380	33,746,917
Basic and diluted EPS	$ (0.20)	$ (0.44)

Common share equivalents consist of the incremental common shares that would be outstanding upon the exercise of stock options, calculated using the treasury stock method. For the three-month periods ended March 31, 2015, and March 31, 2014, the Company excluded all common share equivalents from the calculation of Diluted EPS because the Company had a net loss in those periods. As a result, Diluted EPS is identical to Basic EPS for those periods. If the Company had been in a net income position for the three months ended March 31, 2015, and March 31, 2014, 3,798,838 and 4,947,910 shares, respectively, subject to outstanding stock options may have been included in the calculation of common share equivalents using the treasury stock method.

Common Stock and Stock-Based Compensation

During the three months ended March 31, 2015, the Company issued 31,900 shares of common stock upon the exercise of stock options. The Company issued 75,556 shares of common stock upon the exercise of stock options during the year ended December 31, 2014.

During the three months ended March 31, 2015, the Company granted to employees options to purchase an aggregate of 111,025 shares of common stock, of which 63,495 remain outstanding at March 31, 2015. The remaining stock options have an estimated aggregate fair value, using the Black-Scholes-Merton formula, of $91,000. The Company is recording this amount, as adjusted for forfeitures, as stock-based compensation on a straight line basis over 16 quarters beginning on the last day of the respective quarters in which the grants were made. During the three months ended March 31, 2015, the Company accelerated the vesting of 95,230 stock options and 63,500 stock awards upon the termination of employment of the respective award recipients resulting in $420,000 of stock-based compensation expense.

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
March 31, 2015

2. Summary of Significant Accounting Policies (continued)

Accumulated Other Comprehensive Income or Loss

Accumulated other comprehensive income or loss, as presented in stockholders' equity on the Company's balance sheet, reflects the cumulative net unrealized gains or losses on available-for-sale securities for all periods. The table below reflects changes in accumulated other comprehensive income for the three months ended March 31, 2015, in thousands.

Accumulated other comprehensive income, January 1, 2015	$ 4
Unrealized loss on available-for-sale securities, net	—
Net realized gains on available-for-sale securities reclassified out of other comprehensive income	(2)
Income taxes	21
Accumulated other comprehensive income, March 31, 2015	$ 23

Intellectual Property

The Company capitalizes the costs of intellectual property acquired or licensed from external sources as intangible assets if, at the time of acquisition, the intellectual property has reached technological feasibility. The cost of intellectual property acquired or licensed from external sources that has not reached technological feasibility at the time of acquisition or that has no expected future use is charged to research and development expense as incurred. The Company records all other charges related to the filing, prosecution and maintenance of patents to expense as incurred.

The Company assesses the net realizable value of its long-lived assets, including capitalized intellectual property, and evaluates these assets for impairment whenever events or changes in business circumstances indicate that the carrying amount of an asset may not be recoverable. An impairment charge would be recognized when the estimated undiscounted future cash flows expected to result from the use of the asset and its eventual disposition are less than its carrying amount. An impairment charge, if recognized, would be based on the excess of the carrying value of the impaired asset over its estimated fair value. As a result of the decision to discontinue development of TC-5214, the Company determined during 2014 the carrying value of the related capitalized intellectual property was not recoverable and, accordingly, recorded an impairment charge for its full carrying value of $89,000.

Commitments and Contingencies

Under an employment agreement with a former executive officer, the Company paid severance equal to the former executive's regular base salary as of March 31, 2015, for twelve months, his target bonus for 2015, and his health and life insurance benefits coverage provided to him as of March 31, 2015, for twelve months. These payments and benefits, which represent an aggregate amount of $367,000, were recorded as reduction-in-force expense for the three months ended March 31, 2015. In addition, the Company accelerated the vesting of 69,377 employee stock options and 45,000 stock awards awarded to the former executive, resulting in reduction-in-force expense of $313,000.

Recent Accounting Pronouncements

In May 2014, the FASB issued Accounting Standards Update 2014-09, *Revenue from Contracts with Customers*, or ASU 2014-09. ASU 2014-09 develops a common revenue standard for GAAP and International Financial Reporting Standards and supersedes most current revenue recognition guidance. ASU 2014-09 outlines a single

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
March 31, 2015

2. Summary of Significant Accounting Policies (continued)

comprehensive model for entities to use in accounting for revenue arising from contracts with customers and requires a company to recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the Company expects to be entitled in exchange for those goods or services. In April 2015, the FASB voted for a one-year deferral of the effective date of the new revenue recognition standard. If approved, the new standard will become effective for fiscal years, and interim periods within those years, beginning after December 15, 2017, and can be adopted either retrospectively to each prior reporting period presented or as a cumulative effect adjustment as of the date of adoption. The Company is currently evaluating the impact that the implementation of ASU 2014-09 will have on the Company's financial statements.

3. Investments in Marketable Securities

The following is a reconciliation of amortized cost to fair value of available-for-sale marketable securities (including those classified on the Company's balance sheet as cash equivalents) held at March 31, 2015, and December 31, 2014:

March 31, 2015 *Security type*	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
		(in thousands)		
Marketable Securities—Short term				
U.S. Treasury and U.S. or state government agency-backed securities	$ 14,423	$ 6	$ —	$14,429
Corporate debt securities	16,704	16	(1)	16,719
Municipal bonds	350	—	—	350
Accrued interest	148	—	—	148
Marketable Securities—Long term				
Corporate debt securities - long term	1,213	3	—	1,216
Municipal bonds	295		(1)	294
Accrued interest	8	—	—	8
Total available-for-sale marketable securities	$ 33,141	$ 25	$ (2)	$33,164

December 31, 2014 *Security type*	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
		(in thousands)		
Marketable Securities—Short term				
U.S. Treasury and U.S. or state government agency-backed securities	$ 22,677	$ 9	$ (1)	$22,685
Corporate debt securities	27,240	19	(4)	27,255
Municipal bonds	780	1	—	781
Accrued interest	234	—	—	234
Marketable Securities—Long term				
Corporate debt securities	3,114	4	(1)	3,117
Municipal bonds	295	—	(1)	294
Accrued interest	7	—	—	7
Total available-for-sale marketable securities	$ 54,347	$ 33	$ (7)	$54,373

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
March 31, 2015

3. Investments in Marketable Securities (continued)

As of March 31, 2015, the Company held investments in marketable securities with unrealized gains of $25,000 and unrealized losses of $2,000. For the investments in an unrealized loss position, the duration of the loss was less than 12 months and the investments are not considered to be other-than-temporarily impaired. The Company's investments in marketable securities as of March 31, 2015, will reach maturity between April 2015 and December 2016, with a weighted average maturity date in September 2015.

4. Income Taxes

Because the Company has incurred cumulative net operating losses since inception, all tax years remain open to examination by U.S. federal, North Carolina and Massachusetts tax authorities. An examination of the Company's 2010 federal income tax return was completed in 2014 and resulted in an adjustment that increased taxable income for 2010 by $15,064,000, decreased taxable income for 2011 by $1,076,000, and decreased taxable income for 2012 by $13,988,000. The examination adjustment had no cumulative effect on federal net operating loss carryforwards. Exercises of stock options may result in tax deductions for stock-based compensation in excess of expense recorded for the stock options under GAAP. For interim periods within years for which taxable net income is forecasted, the Company recognizes the income tax benefit related to the excess tax deductions as an increase to capital in excess of par value, which based on ASC 740 results in an offsetting charge in the same amount to income tax expense. The examination adjustment to the Company's 2010 federal income tax return resulted in the realization of an additional $3,412,000 of excess tax deductions and an offsetting charge to income tax expense for the three months ended March 31, 2014.

As of March 31, 2015, the Company had $3,915,000 remaining of cumulative tax deductions for periods of net loss from exercises of stock options in excess of expense recorded for the stock options under GAAP. The benefit of these excess tax deductions had not begun to be realized as of March 31, 2015, because the Company incurred operating losses in the years in which the respective stock options were exercised and has incurred cumulative net operating losses since inception. Accordingly, the tax benefit will not be recognized as an increase to capital in excess of par value unless and until the excess deductions reduce income taxes payable.

5. Collaboration Agreement

In December 2005, the Company entered into a collaborative research and license agreement with AstraZeneca AB, or AstraZeneca, that was initially focused in cognitive disorders. In October 2014, AstraZeneca terminated the agreement in its entirety, effective January 2015. When termination of the agreement became effective, all remaining rights and licenses to compounds granted by the Company under the agreement to AstraZeneca were terminated and reverted to the Company, including the rights and license relating to the Company's product candidate TC-6683 (also known as AZD1446).

AstraZeneca paid the Company an initial fee of $10,000,000 under the agreement in February 2006. The initial fee included $5,000,000 for grants of licenses to develop and commercialize the Company's product candidate TC-1734 (formerly known also as AZD3480), which the Company recognized on a straight-line basis over the estimated development period for TC-1734. In September 2010, the Company and AstraZeneca amended the agreement to enable the Company to conduct a clinical trial of TC-1734 in mild to moderate Alzheimer's disease and to provide for respective roles and responsibilities and associated financial terms for such a study. Under the 2010 amendment, the Company received from AstraZeneca cumulative payments of $6,000,000 during 2010 and 2011. At that time, the Company began recognizing the portion of the $5,000,000 received for grants of licenses not yet recognized and the payments received under the 2010 amendment into revenue on a straight-line basis over the period of the Company's substantive performance obligations under the agreement as amended.

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
March 31, 2015

5. Collaboration Agreement (continued)

In March 2013, the Company and AstraZeneca amended the agreement to permit AstraZeneca to pursue development and commercialization of compounds it had licensed from the Company in any therapeutic area. Also in March 2013, AstraZeneca exercised its right to terminate TC-1734 from the collaboration. Under the agreement, AstraZeneca paid the Company an aggregate of $88,120,000, including the initial fee and payments upon the achievement of milestone events, to maintain option rights and for research services rendered in the completed preclinical research collaboration. This entire amount had been fully recognized into revenue in previous periods.

6. Reduction In Force

In the first quarter of 2015, the Company completed a reduction in force, which reduced the Company's workforce by five employees, or approximately 28%. The Company recorded $1,156,000 in severance and other charges related to the reduction in force in the three months ended March 31, 2015.

CATALYST BIOSCIENCES, INC.

FINANCIAL STATEMENTS

Years Ended December 31, 2014 and 2013

Contents

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
Catalyst Biosciences, Inc.

We have audited the accompanying balance sheets of Catalyst Biosciences, Inc. (the "Company"), as of December 31, 2014 and 2013 and the related statements of operations, convertible preferred stock and stockholders' deficit and cash flows for each of the years in the two-year period ended December 31, 2014. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Catalyst Biosciences, Inc. as of December 31, 2014 and 2013, and the results of its operations and its cash flows for each of the years in the two-year period ended December 31, 2014, in conformity with accounting principles generally accepted in the United States of America.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, Catalyst Biosciences, Inc.'s recurring losses from operations raise substantial doubt about its ability to continue as a going concern. Management's plans as to these matters also are described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ EisnerAmper LLP

Iselin, New Jersey
May 22, 2015

CATALYST BIOSCIENCES, INC.

BALANCE SHEETS

	December 31, 2014	December 31, 2013
Assets		
Current assets:		
Cash and cash equivalents	$ 1,543,705	$ 2,828,431
Deposits	278,604	—
Restricted Cash	50,000	50,000
Accounts receivable	95,063	96,092
Prepaid and other current assets	102,900	201,778
Total current assets	2,070,272	3,176,301
Property and equipment, net	910,981	1,765,184
Deposits	—	278,604
Intangible assets, net of amortization	—	54,102
Total noncurrent assets	910,981	2,097,890
Total Assets	**$ 2,981,253**	**$ 5,274,191**
Liabilities and Stockholders' Deficit		
Current liabilities:		
Accounts payable	$ 248,589	$ 354,437
Accrued compensation	280,730	233,918
Other accrued liabilities	30,000	78,812
Deferred revenue, current portion	1,750,000	1,187,500
Deferred rent, current portion	26,314	156,215
Total current liabilities	2,335,633	2,010,882
Deferred revenue, noncurrent portion	729,167	1,604,167
Deferred rent, noncurrent portion	—	26,308
Warrant Liability	391,361	—
Total noncurrent liabilities	1,120,528	1,630,475
Total Liabilities	**3,456,161**	**3,641,357**
Commitments (*Note 3*)		
Convertible preferred stock:		
Series AA convertible preferred stock, $0.001 par value; 7,327,166 and 7,327,166 shares authorized in 2014 and 2013, respectively; 7,327,166 and 7,327,166 shares issued and outstanding in 2014 and 2013, respectively, aggregate liquidation preference of $7,327,166 at December 31, 2014 and 2013	7,327,166	7,327,166
Series BB convertible preferred stock, $0.001 par value; 23,104,618 and 23,104,618 shares authorized in 2014 and 2013, respectively; 23,104,618 and 23,104,618 shares issued and outstanding in 2014 and 2013, respectively; aggregate liquidation preference of $29,356,728 at December 31, 2014 and 2013	29,356,728	29,356,728
Series BB-1 convertible preferred stock, $0.001 par value; 5,978,477 and 5,978,477 shares authorized in 2014 and 2013, respectively; 5,978,477 and 5,978,477 shares issued and outstanding in 2014 and 2013, respectively; aggregate liquidation preference of $8,999,999 at December 31, 2014 and 2013	8,999,999	8,999,999
Series CC convertible preferred stock, $0.001 par value; 46,429,980 and 46,429,980 shares authorized in 2014 and 2013, respectively; 46,429,980 and 46,429,980 shares issued and outstanding in 2014 and 2013, respectively; aggregate liquidation preference of $58,993,933 at December 31, 2014 and 2013	58,175,835	58,175,835
Series D convertible preferred stock, $0.001 par value; 629,630 and 629,630 shares authorized in 2014 and 2013, respectively; 629,630 and 629,630 shares issued and outstanding in 2014 and 2013, respectively; aggregate liquidation preference of $4,000,039 at December 31, 2014 and 2013	781,173	781,173
Series E convertible preferred stock, $0.001 par value 5,000,000 shares authorized in 2014; 3,935,140 shares issued and outstanding in 2014 aggregate liquidation preference of $9,999,978 at December 31, 2014	4,236,100	—
Total convertible preferred stock	108,877,001	104,640,901
Stockholders' deficit:		
Common stock, $0.001 par value; 110,000,000 and 104,000,000 shares authorized in 2014 and 2013, respectively; 9,710,572 and 9,560,572 shares issued and outstanding in 2014 and 2013, respectively.	9,710	9,559
Additional paid-in capital	6,913,042	6,643,780
Accumulated Deficit	(116,274,661)	(109,661,406)
Total Stockholders' Deficit	**(109,351,909)**	**(103,008,067)**
Total Liabilities and Stockholders' Deficit	**$ 2,981,253**	**$ 5,274,191**

The accompanying notes are an integral part of these financial statements

CATALYST BIOSCIENCES, INC.

STATEMENTS OF OPERATIONS

	Year Ended December 31,	
	2014	2013
Contract revenue	$ 1,812,500	$ 523,308
Operating expenses:		
Research and development	5,266,571	6,556,958
General and administrative	4,055,633	4,086,300
Total operating expenses	9,322,204	10,643,258
Loss from operations	(7,509,304)	(10,119,950)
Other Income	541,925	153,613
Change in fair value of warrant liability	354,524	—
Net loss	$ (6,613,255)	$ (9,966,337)

The accompanying notes are an integral part of these financial statements

CATALYST BIOSCIENCES, INC.

STATEMENTS OF CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT

	Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount			
Balances at December 31, 2012	**78,932,729**	**$ 98,898,841**	**9,560,572**	**$ 9,559**	**$ 6,345,960**	**$ (99,695,069)**	**$ (93,339,550)**
Stock based compensation expense associated with vesting of stock award	—	—	—	—	297,820	—	297,820
Issuance of series CC convertible preferred stock to investors at $1.2706 per share for cash in February 2013, net of issuance costs of $3,998	3,907,512	4,960,887					
Issuance of series D convertible preferred stock to investors at $1.2706 per share for cash in August 2013, net of issuance costs of $18,832	629,630	781,173					
Net and comprehensive loss	—	—	—	—	—	(9,966,337)	(9,966,337)
Balances at December 31, 2013	**83,469,871**	**104,640,901**	**9,560,572**	**9,559**	**6,643,780**	**(109,661,406)**	**(103,008,067)**
Stock based compensation expense associated with vesting of stock award	—	—	—	—	244,413	—	244,413
Stock options exercises for cash ($.05-$.40)	—	—	150,000	151	24,849	—	25,000
Issuance of series E convertible preferred stock to investors at $1.2706 per share for cash in April 2014, net of issuance costs of $27,843	3,935,140	4,236,100	—	—		—	
Net and comprehensive loss	—	—	—	—	—	(6,613,255)	(6,613,255)
Balances at December 31, 2014	**87,405,011**	**$ 108,877,001**	**9,710,572**	**$ 9,710**	**$ 6,913,042**	**$ (116,274,661)**	**$ (109,351,909)**

The accompanying notes are an integral part of these financial statements

CATALYST BIOSCIENCES, INC.

STATEMENTS OF CASH FLOWS

	Year Ended December 31,	
	2014	2013
Operating Activities		
Net loss	$ (6,613,255)	$ (9,966,337)
Adjustments to reconcile net loss to net cash used in operating activities:		
Warrant for convertible preferred stock	(354,524)	—
Stock-based compensation expense	244,413	297,820
Depreciation and amortization	679,595	974,017
Loss on disposal of fixed assets	77,491	—
Impairment of patent asset	53,219	—
Changes in operating assets and liabilities:		
Accounts receivable	1,029	(51,263)
Prepaid and other current assets	98,878	53,950
Accounts payable	(105,848)	11,162
Accrued compensation and other accrued liabilities	(2,000)	(246,716)
Deferred rent	(156,209)	(138,013)
Deferred revenue	(312,500)	2,791,667
Net cash flows used in operating activities	(6,389,711)	(6,273,713)
Investing Activities		
Purchases of property and equipment	—	(41,365)
Proceeds from sale of fixed assets	98,000	—
Net cash flows provided (used in) by investing activities	98,000	(41,365)
Financing Activities		
Proceeds from issuance of convertible preferred stock, net of issuance costs	4,981,985	5,742,060
Proceeds from exercise of options	25,000	—
Net cash flows provided by financing activities	5,006,985	5,742,060
Net decrease in cash and cash equivalents	(1,284,726)	(573,018)
Cash and cash equivalents at beginning of year	2,828,431	3,401,449
Cash and equivalents at end of year	$ 1,543,705	$ 2,828,431

The accompanying notes are an integral part of these financial statements

CATALYST BIOSCIENCES, INC.

NOTES TO FINANCIAL STATEMENTS

1. Summary of Significant Accounting Policies

Nature of Operations and Basis of Presentation

Catalyst Biosciences, Inc. (the Company or Catalyst), was incorporated in the state of Delaware on August 5, 2002. The Company is a clinical-stage biotechnology company focused on engineering proteases as therapeutics for hemophilia, hemeostasis, compliment-mediated diseases, and other unmet medical needs. Its facilities are located in South San Francisco, California. The Company's current customers, engaged principally through collaborations are other pharmaceutical and biotechnology companies, who are also engaged in developing and commercializing therapies for patients in the areas of hemophilia and compliment-mediated diseases.

Liquidity

The Company has incurred cumulative net losses of $116.3 million through December 31, 2014 and negative cash flows from operating activities and expects to continue to incur losses for the next several years. Management plans to continue to finance the Company's operations with a combination of revenues from technology licenses, corporate alliances with pharmaceutical companies, equity issuances, and debt arrangements. The Company's operating plans and scope of development programs are directly related to the availability of adequate funds. If adequate funds are not available in the future, the Company may be required to delay, reduce the scope of, or eliminate one or more of its development programs and/or need to reevaluate its operating plans.

These factors raise substantial doubt about the Company's ability to continue as a going concern. The accompanying financial statements have been prepared assuming the Company will continue to operate as a going concern, which contemplates the realization of assets and the settlement of liabilities in the normal course of business. The financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of this uncertainty related to the Company's ability to continue as a going concern.

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Such management estimates include the warrant for convertible preferred stock. The Company bases its estimates on various assumptions that the Company believes to be reasonable under the circumstances. Actual results could differ from those estimates.

Operating Expenses

Research and development costs are expensed as incurred. Research and development costs consist of payroll and personnel expenses, laboratory supplies and reagents, contract research and development services, and consulting costs, as well as allocations of facilities and other overhead costs. Under the Company's collaboration agreements, certain specific expenditures are reimbursed by third parties. During the years ended December 31, 2014 and 2013, $381,465 and $175,713, respectively were reimbursed to the Company. Payments received as direct reimbursement of specific expenditures are recorded as a reduction to those expenses.

Cash and Cash Equivalents

The Company invests its excess cash in bank deposits, consisting primarily of money market mutual funds. The Company considers all highly liquid investments with original maturities of three months or less when purchased to be cash equivalents.

CATALYST BIOSCIENCES, INC.

NOTES TO FINANCIAL STATEMENTS (continued)

1. Summary of Significant Accounting Policies (continued)

Restricted Cash

At December 31, 2014 and 2013, the Company had restricted cash of $50,000 required as collateral for the Company's corporate credit card.

Fair Value Measurements

The Company follows Financial Accounting Standards Board (FASB) Accounting Standards Codification Topic 820 (ASC 820), *Fair Value Measurements*. ASC 820 establishes a fair value hierarchy that categorizes observable and unobservable inputs used to measure fair value into three levels, which are described below:

- Level 1: Unadjusted quoted prices in active markets that are accessible at the measurement date for identical assets or liabilities.
- Level 2: Observable inputs other than quoted prices included within Level 1, such as quoted prices for similar assets or liabilities in active markets, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3: Unobservable inputs that are supported by little or no market data. Inputs reflect management's best estimate of what market participants would use in pricing the asset or liability at the measurement date.

As of December 31, 2014 and 2013, the Company's highly liquid money market funds included within cash equivalents are financial assets that are valued using Level 1 inputs and the Company does not have any financial instruments utilizing level 2 or level 3 inputs. Liabilities that are measured at fair value consist of the warrant for convertible preferred stock that utilizes Level 3 inputs.

The fair value of the warrant for convertible preferred stock is measured using the Black-Scholes option-pricing model. Inputs used to determine the estimated fair value of the warrant include the estimated fair value of the underlying preferred stock at the valuation measurement date, the remaining contractual term of the warrant, risk-free interest rates, and expected dividends on and expected volatility of the price of the underlying preferred stock. The Company did not have any significant changes in its valuation techniques related to the valuation of this liability during 2014.

The following table sets forth the Company's assets that were measured at fair value and the level of the inputs used to value those assets and liabilities within the fair value hierarchy:

	Level 1	Level 2	Level 3	Total
As of December 31, 2014:				
Money market funds	$1,546,038	$ —	$ —	$1,546,038
Warrant for convertible preferred stock	—	—	(391,361)	(391,361)
Total	$1,546,038	$ —	$(391,361)	$1,154,677

	Level 1	Level 2	Level 3	Total
As of December 31, 2013:				
Money market funds	$2,710,191	$ —	$ —	$2,710,191

CATALYST BIOSCIENCES, INC.

NOTES TO FINANCIAL STATEMENTS (continued)

1. Summary of Significant Accounting Policies (continued)

The following tables present the activity for liabilities measured at estimated fair value using unobservable inputs for the year ended December 31, 2014:

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3)
	Warrant for Convertible Stock
Beginning balance at December 31, 2013	$ —
Issuance of warrants	745,885
Changes in estimated fair value	(354,524)
Ending balance at December 31, 2014	$ 391,361

Comprehensive Loss

Comprehensive loss is composed of net loss and other comprehensive income or loss. To date, the Company has not had any significant transactions that are required to be reported in comprehensive loss other than the net loss from operations.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of cash and cash equivalents and accounts receivable. The Company's investment policy restricts cash investments to high credit quality, investment grade investments.

The Company believes that it has established guidelines for investment of its excess cash that maintain safety and liquidity through its policies on diversification and investment maturity. The Company is exposed to credit risk in the event of default by the institutions holding the cash and cash equivalents to the extent of the amounts recorded on the balance sheets. The Company's accounts receivable at December 31, 2014 was $95,063, of which $79,857 was due from Pfizer Inc., and $15,206 was due from ISU Abxis. The Company has incurred no credit losses to date. The Company does not require collateral from its collaboration partners.

Property and Equipment

Property and equipment are stated at cost, less accumulated depreciation. Depreciation is provided using the straight-line method over the estimated useful lives of the respective assets, which are three years for computer equipment and software, and three to seven years for laboratory and office equipment, furniture and leasehold improvements.

Intangible Assets

Intangible assets represent patent rights purchased in 2009 in the amount of $70,567 that were being amortized over their estimated useful life of 20 years, or life of the patent whichever is shorter, using the straight-line method. Annual amortization was $883 and $3,528 for 2014 and 2013, respectively. The Company abandoned this patent in 2014. No further amortization is necessary. The total amortized through 2014 was $17,348 and the remaining $53,219 was written off to amortization expense during 2014 in the accompanying statements of operations.

CATALYST BIOSCIENCES, INC.

NOTES TO FINANCIAL STATEMENTS (continued)

1. Summary of Significant Accounting Policies (continued)

Revenue Recognition

The Company enters into collaboration arrangements that may include the receipt of payments for up-front license fees, success-based milestone payments; full time equivalent (FTE) based payments for research services, and royalties on any future sales of commercialized products that result from the collaborations.

The Company has entered into collaboration agreements with Wyeth (now Pfizer), MedImmune, Centocor and ISU Abxis. For the annual periods ending December 31, 2014 and 2013, only collaborations with Pfizer and ISU Abxis were active. Revenue related to these collaborations is recognized when the four basic criteria for revenue recognition are met: (1) persuasive evidence of an arrangement exists; (2) transfer of technology has been completed or services have been rendered; (3) the fee is fixed or determinable; and (4) collectability is reasonably assured.

Revenue recognition for multiple revenue arrangements will have deliverables associated with the arrangement divided into separate units of accounting provided that (i) a delivered item has value to the customer on a standalone basis and (ii) if the arrangement includes a general right of return relative to the delivered item, delivery or performance of the undelivered item is considered probable and substantially in the control of the vendor. As a biotechnology company with unique and specialized technological undelivered performance obligations associated with its collaborations, the Company's multiple element arrangements most often involve deliverables and consideration that do not meet the criteria for having stand alone value.

Such deliverables and consideration must be accounted for under a single unit of accounting along with other arrangement deliverables and consideration that do not have stand-alone value and are recognized as revenue over the estimated period of when the performance obligations are to be performed. The revenue is recognized on a proportional performance basis when the levels of the performance obligations under an arrangement can be reasonably estimated and on a straight-line basis when they cannot.

The non-refundable, up-front or license maintenance payments associated with the Company's collaboration agreements do not have stand-alone value to the collaborator and accordingly, are recognized only when standard basic criteria for revenue recognition are met, e.g. the Company has a contractual right to receive such payment, the contract price is fixed and determinable, the collection of the resulting receivable is reasonably assured and the Company has no further performance obligations under the agreement.

The Company's collaboration agreements entitle it to additional payments upon the achievement of performance-based milestones related to product development, regulatory actions and commercial events in certain geographic areas. Milestones that are not deemed probable or that are tied to counter-party performance are not included in the Company's revenue until the performance conditions are met. If a collaborative agreement milestone is deemed to be substantive, as defined in the accounting rules, the Company is permitted to recognize revenue related to the milestone payment in its entirety.

In the event milestones are deemed non-substantive, the Company recognizes, and defers if applicable, payments for the achievement of such non-substantive milestones over the estimated period of performance applicable to each collaborative agreement using the proportional performance method or on a straight-line basis, as appropriate.

Collaborative agreement amounts received prior to satisfying revenue recognition criteria are recorded as deferred revenue in the accompanying balance sheets. Deferred revenue is recorded on our balance sheet as short-term or long-term based on our best estimate as to when such revenue will be recognized. Short-term

CATALYST BIOSCIENCES, INC.

NOTES TO FINANCIAL STATEMENTS (continued)

1. Summary of Significant Accounting Policies (continued)

deferred revenue consists of amounts that we expect to recognize as revenue in the next 12 months. Amounts that we expect will not be recognized prior to the next 12 months are classified as long-term deferred revenue.

The estimate of deferred revenue also reflects management's estimate of the periods of the Company's involvement, or performance obligations, in our collaborations. The Company's performance obligations under these collaborations consist of participation on steering committees and the performance of other research and development and business development services. The timing for satisfying these performance obligations can be difficult to estimate and can be subject to change over the course of these agreements. A change in the estimated timing for satisfying the Company's performance obligations could change the timing and amount of revenue that we recognize and record in future periods. The estimated period of the Company's performance obligations under its active collaboration agreements are currently assessed to conclude August, 2015 under the Pfizer collaboration and August, 2017 under our collaboration with ISU Abxis (see Note 7, Collaborations). As of December 31, 2014, the Company had short-term and long-term deferred revenue of $1,750,000 and $729,167, respectively, related to collaborations. As of December 31, 2013, the Company had short-term and long-term deferred revenue of $1,187,500 and $1,604,167, respectively, related to collaborations.

Income Taxes

Income taxes are computed using the liability method. Deferred tax assets and liabilities are determined based on the differences between the financial reporting and tax basis of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse.

It is the Company's policy to include penalties and interest expense related to income taxes as a component of other expense and interest expense, respectively, as necessary.

The Company follows the authoritative guidance on accounting for uncertainty in income taxes. This guidance prescribes a more-likely-than-not threshold for financial statement recognition and measurement of a tax position taken in the Company's income tax returns. This interpretation also provides guidance on accounting for interest and penalties and associated with tax positions, accounting for income taxes in interim periods and income tax disclosures. The Company's policy is to recognize interest and penalties related to tax matters in the income tax provision in the Statements of Operations.

As of December 31, 2014 and 2013, the Company had no uncertain tax positions which affected its financial position and its results of operations or its cash flow, and will continue to evaluate for uncertain positions in the future. The open tax years for the Company are December 31, 2011 through December 31, 2014 and are subject to examination by the IRS and other various taxing authorities, generally for three years after tax returns were filed.

Stock-Based Compensation

The Company measures the cost of employee and director services received in exchange for an award of equity instruments based on the fair value-based measurement of the award on the date of grant and recognizes the related expense over the period during which the employee or director is required to provide service in exchange for the award on a straight-line basis.

The Company uses the Black-Scholes option-pricing valuation model to estimate the grant-date fair value-based measurement of stock-based awards. The determination of fair value-based measurements for stock-based awards on the date of grant using an option-pricing model requires management to make certain assumptions

CATALYST BIOSCIENCES, INC.

NOTES TO FINANCIAL STATEMENTS (continued)

1. Summary of Significant Accounting Policies (continued)

regarding a number of variables. The Company records stock-based compensation as compensation expense, net of the estimated impact of forfeited awards. The Company applies a forfeiture rate to stock-based compensation expense using historical data to estimate pre-vesting option forfeitures. The Company estimates forfeitures at the time of grant, and revises those estimates in subsequent periods if actual forfeitures differ materially from those original estimates. As such, the Company recognizes stock-based compensation expense only for those stock-based awards that are expected to vest, over their requisite service period, based on the vesting provisions of the individual grants.

For nonemployee stock-based awards, the measurement date on which the fair value-based measurement of the stock-based award is calculated is equal to the earlier of (i) the date at which a commitment for performance by the counterparty to earn the equity instrument is reached or (ii) the date at which the counterparty's performance is complete. The Company recognizes stock-based compensation expense for the fair value-based measurement of the nonemployee awards using the Black Scholes option-pricing valuation model and the awards are typically subject to periodic re-measurement over the period that services are rendered.

Deferred Rent

The Company's facilities lease agreement provides for an escalation of rent payments each year. The Company records rent expense on a straight-line basis over the term of the lease. The difference between the amount of expense recognized and the amount of rent paid is recorded as deferred rent in the accompanying balance sheets.

New Accounting Pronouncement

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers. This update states a core principle in that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services.

To achieve the core principle, an entity should apply the following steps: 1) identify the contract(s) with the customer; 2) identify the performance obligations in the contract; 3) determine the transaction price; 4) allocate the transaction price to the performance obligation in the contract; and 5) recognize revenue when (or as) the entity satisfies a performance obligation. The amendments in the update are effective for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period. Early application is not permitted. The Company is currently assessing the impact of this standard.

In August 2014, the FASB issued ASU 2014-15, Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern. ASU 2014-15 requires management to evaluate relevant conditions, events and certain management plans that are known or reasonably knowable that, when considered in the aggregate, raise substantial doubt about the entity's ability to continue as a going concern within one year after the date that the financial statements are issued, for both annual and interim periods. ASU 2014-15 also requires certain disclosures around management's plans and evaluation, as well as the plans, if any, that are intended to mitigate those conditions or events that will alleviate the substantial doubt. ASU 2014-15 is effective for fiscal years ending after December 15, 2016. Catalyst is currently evaluating the impact that the adoption of ASU 2014-15 will have on its financial statements and related disclosures.

Reclasssification

Certain reclassifications have been made to the 2013 financial statements to conform to the 2014 presentation.

CATALYST BIOSCIENCES, INC.

NOTES TO FINANCIAL STATEMENTS (continued)

2. Property and Equipment

Property and equipment consisted of the following:

	December 31, 2014	December 31, 2013
Laboratory and office equipment	$ 5,026,560	$ 6,092,206
Furniture	311,218	311,218
Leasehold improvements	1,515,298	1,522,685
Computer equipment	285,048	285,048
Software	421,985	421,985
	7,560,109	8,633,142
Less accumulated depreciation and amortization	(6,649,128)	(6,867,958)
Property and equipment, net	$ 910,981	$ 1,765,184

Property and equipment depreciation and amortization expense for the years ended December 31, 2014 and 2013 was $678,713 and $970,489, respectively.

3. Commitments and Other Accrued Liabilities

Operating Leases

The Company leases a facility in South San Francisco, California, under an operating lease agreement that extends to February 28, 2015. In connection with the lease agreement, a cash security deposit of $278,604 was made to the landlord and is classified as a short-term deposit. In February 2015, the Company entered into a new lease, see note 9 for further discussion.

The Company's rental expense under its operating leases was $979,766 and $973,765 for the years ended December 31, 2014 and 2013, respectively.

Future minimum lease payments under all non-cancelable operating leases at December 31, 2014, were as follows:

Year ending December 31,	
2015	$ 94,830
Year ending December 31,	
2015 (sublease)	341,682
Total future minimum lease payments	$436,512

License Agreement Obligations

Under its technology license agreements to acquire certain technology rights, the Company has an obligation to pay minimum fees and then royalties based upon a percentage of any net sales of licensed products. License fees payable under the technology license agreements are $95,000 in 2013 and each year thereafter until royalties commence. The technology license agreements also provide for future payments to be made by the Company upon the achievement of development milestones or cumulative sales milestones. Pursuant to the license and collaboration agreement with ISU Abxis (see Note 6), the Company may be obligated to pay ISU Abxis up to $2.0 million in potential milestone payments. At December 31, 2014, no such milestones have been achieved.

CATALYST BIOSCIENCES, INC.

NOTES TO FINANCIAL STATEMENTS (continued)

4. Stockholders' Deficit and Convertible Preferred Stock

Convertible Preferred Stock and Warrants

On April 9, 2014, the Company completed a Series E convertible preferred stock offering that generated $5.0 million in gross proceeds. In the offering, Catalyst issued 983,778 Series E preferred stock warrant shares with a strike price equal to $1.2706 per share, with a corresponding term of five years from issuance as well as warrants to purchase a number of shares equal to 25% of Series E preferred shares purchased by the participants in the financing. The warrants have an exercise price of $1.2706 per share (as adjusted for stock splits, stock dividends, reclassification and the like) and expire on April 9, 2019.

The Company accounts for the preferred stock warrants in accordance with the guidance contained in ASC 815-40, whereby the warrants do not meet the criteria for equity treatment and must be recorded as a liability. Accordingly, the Company classifies the warrants as a liability at its fair value. The warrants are subject to remeasurement at each balance sheet date, with any change in fair value recognized as a component of other income (expense), net in the statements of operations.

The Company estimated the fair value of these warrants at the balance sheet date using the Black-Scholes option pricing model, based on the estimated market value of the underlying common stock at the valuation measurement date, the remaining contractual term of the warrant, risk-free interest rates and expected dividends on and expected volatility of the price of the underlying common stock. At issuance, the Preferred E Warrants were valued at $745,885. The Company revalued the warrants as of December 31, 2014 and the fair value of the Preferred E Warrants was $391,361.

The authorized, issued and outstanding shares of convertible preferred stock and liquidation preferences per share thereof as of December 31, 2014, were as follows:

	Shares Authorized	Shares Issued and Outstanding	Liquidation Preference Per Share
Series AA	7,327,166	7,327,166	$ 1.0000
Series BB	23,104,618	23,104,618	$ 1.2706
Series BB-1	5,978,477	5,978,477	$ 1.5054
Series CC	46,429,980	46,429,980	$ 1.2706
Series D	629,630	629,630	$ 6.3530
Series E	5,000,000	3,935,140	$ 2.5412
	88,469,871	87,405,011	

All shares of preferred stock have a liquidation preference in the event of a change of control event. The holders of Series E preferred stock have a liquidation preference that provides for a return of two (2) times the amount of original investment and then full participation on a pro rata basis as if converted to common stock. The holders of Series D preferred stock have a liquidation preference that provides for a return of five (5) times the amount of original investment and then full participation on a pro rata basis as if converted to common stock. Holders of Series CC preferred stock, Series BB-1 preferred stock, Series BB preferred stock, and Series AA preferred stock have a liquidation preference that provides for a dollar-for-dollar return of capital and then full participation on a pro rata basis as if converted to common stock. As the preferred stock is subject to a liquidation preference upon an event outside the control of the Company, the related amounts have been presented outside of stockholders' deficit. The carrying value of preferred stock will be adjusted to redemption value if it becomes probable that a redemption will occur. Management does not believe that redemption is probable based on current business conditions.

CATALYST BIOSCIENCES, INC.

NOTES TO FINANCIAL STATEMENTS (continued)

4. Stockholders' Deficit and Convertible Preferred Stock (continued)

Voting

Each share of convertible preferred stock is entitled to voting rights equivalent to the number of shares of common stock into which each share can be converted. Each share of common stock is entitled to one vote.

Conversion

Each share of convertible preferred stock is convertible at the holder's option at any time into common stock, subject to adjustment for anti-dilution. The conversion price for Series AA convertible preferred stock is $1.00 per share, for Series BB convertible preferred stock is $1.2706 per share, for Series BB-1 convertible preferred stock is $1.3843 per share, and for Series CC, Series D and Series E convertible preferred stock is $1.2706 per share. Conversion is automatic upon the closing of an underwritten public offering with an offering price of at least $3.8118 per share and aggregate gross proceeds of at least $40,000,000, or upon the written consent of holders of at least 66.67% of the then-outstanding convertible preferred stock.

Dividends

Holders of Series E convertible preferred stock are entitled to noncumulative dividends, prior to the payment of any dividends to holders of Series AA, Series BB, Series BB-1, Series CC, and Series D convertible preferred stock, at an annual rate of $0.101648 per share if and when declared by the board of directors. Holders of Series D convertible preferred stock are entitled to noncumulative dividends, prior to the payment of any dividends to holders of Series AA, Series BB, Series BB-1, and Series CC convertible preferred stock, at an annual rate of $0.101648 per share if and when declared by the board of directors. Holders of Series CC convertible preferred stock are entitled to noncumulative dividends, prior to the payment of any dividends to holders of Series AA, Series BB, and Series BB-1 convertible preferred stock, at an annual rate of $0.101648 per share if and when declared by the board of directors. Holders of Series BB and Series BB-1 convertible preferred stock are entitled to noncumulative dividends, prior to the payment of any dividends to the holders of Series AA convertible preferred stock, at an annual rate of $0.101648 per share for the Series BB convertible preferred stock and of $0.120432 per share for the Series BB-1 convertible preferred stock, if and when declared by the board of directors. Holders of Series AA convertible preferred stock are entitled to noncumulative dividends at an annual rate of $0.08 per share if and when declared by the board of directors. These dividends are to be paid in advance of any distributions to common stockholders. No dividends had been declared through December 31, 2014.

Liquidation

In the event of a liquidation or winding up of the Company, holders of Series E convertible preferred stock are entitled to the liquidation preference of $2.5412 for each such share of preferred stock, together with any declared but unpaid dividends, prior to the payment of any distributions to the holders of Series AA, Series BB, Series BB-1, Series C and Series D convertible preferred stock. In the event of a liquidation or winding up of the Company, holders of Series D convertible preferred stock are entitled to the liquidation preference of $6.353 for each such share of preferred stock, together with any declared but unpaid dividends, prior to the payment of any distributions to the holders of Series AA, Series BB, Series BB-1, and Series C convertible preferred stock. The holders of Series CC convertible preferred stock are entitled to the liquidation preference of $1.2706 for each such share of preferred stock, together with any declared but unpaid dividends, prior to the payment of any distributions to the holders of Series AA, Series BB, and Series BB-1 convertible preferred stock. The holders of Series AA, Series BB, and Series BB-1 convertible preferred stock are then entitled to the liquidation preference of $1.00, $1.2706 and $1.5054, respectively, for each such share of preferred stock, together with any declared

CATALYST BIOSCIENCES, INC.

NOTES TO FINANCIAL STATEMENTS (continued)

4. Stockholders' Deficit and Convertible Preferred Stock (continued)

but unpaid dividends, prior to the payment of any distributions to the holders of common stock. After payment of these preferential amounts, the remaining assets of the Company shall be distributed among the holders of the convertible preferred stock and common stock pro rata based on the number of shares of common stock held (assuming conversion of the convertible preferred stock).

2004 Incentive Stock Plan

The Company's 2004 Stock Plan (the Plan) was adopted by the board of directors in January 2004. Pursuant to the Plan, options or stock purchase rights may be granted to employees and consultants of the Company. Options granted may be either incentive stock options or non-statutory stock options. Incentive stock options may be granted to employees with exercise prices of no less than the fair value of the common stock on the grant date, and non-statutory options may be granted to employees or consultants at exercise prices of no less than 85% of the fair value of the common stock on the grant date, as determined by the board of directors. Options vest as determined by the board of directors, generally over four years. The 2004 Incentive stock plan had a term of 10 years and expired in 2014. No more options can be issued under this plan.

However, on February 5, 2010, and March 17, 2009, the Company granted performance-based options to purchase 170,203 and 2,301,796 shares, respectively, to certain key members of management with the following vesting terms: 12.5% of the shares vest each year on the anniversary of the vesting commencement date subject to the optionee's continued employment with the Company; an additional 12.5% of the total number of shares in each grant will be eligible for vesting each year on the anniversary of the vesting commencement date based upon the board of director's determination of the achievement of Company goals or other achievements; and 100% of any unvested shares shall become vested immediately prior to the consummation of a change of control of the Company. Options granted under the Plan expire no more than ten years after the date of grant. Total expense associated with the performance-based options for the years December 31, 2014 and December 31, 2013, was $60,437 and $60,437 respectively.

The following table summarizes stock option activity under the Plan, including stock options granted to nonemployees, and related information:

2004 Incentive Stock Plan

		Outstanding Options	
	Shares Available for Grant	Number of Shares Underlying Options Outstanding	Weighted-Average Exercise Price
Balances at December 31, 2013	315,141	6,435,868	$ 0.34
Options exercised		(150,000)	0.29
Options forfeited	59,685	(59,685)	0.15
Stock repurchased	—	—	—
Balances at December 31, 2014	374,826	6,226,183	$ 0.23

CATALYST BIOSCIENCES, INC.

NOTES TO FINANCIAL STATEMENTS (continued)

4. Stockholders' Deficit and Convertible Preferred Stock (continued)

Since the 2004 Incentive Stock Plan expired the Company issued stock outside of the plan. The following table summarizes stock option activity for options issued outside of the plan. Stock options have only been granted to non-employees outside the plan

Out of Plan Options

		Outstanding Options	
	Shares Available for Grant	Number of Shares Underlying Options Out of Plan Outstanding	Weighted-Average Exercise Price
Balances at December 31, 2013	—	—	$ —
Out of Plan Options granted		325,000	0.29
Options forfeited	—	—	—
Stock repurchased	—	—	—
Balances at December 31, 2014	—	325,000	$ 0.29

At December 31, 2014, all of the outstanding options to purchase common stock of the Company were exercisable. The options are summarized in the following table:

2004 Incentive Stock Plan

Exercise Price Per Share	Number of Shares Underlying Options Outstanding	Number of Shares Underlying Options Vested	Weighted-Average Remaining Contractual Life (In Years)
$0.0500	30,000	30,000	0.6861
$0.0700	214,000	214,000	0.0700
$0.2800	2,642,815	2,642,815	5.2084
$0.3600	526,375	526,375	4.3173
$0.4000	826,206	769,605	6.1113
$0.4400	1,887,975	671,060	8.8634
$0.4800	98,812	82,268	7.4444
	6,226,183	4,936,123	5.5050

Out of plan options

Exercise Price Per Share	Number of Shares Underlying Options Outstanding	Number of Shares Underlying Options Vested	Weighted-Average Remaining Contractual Life
$0.2900	325,000	314,583	1.8300

At December 31, 2014, the total aggregate intrinsic value of options outstanding was $627,491. The weighted-average grant fair value of options granted during 2014 and 2013 was $0.23 and $0.29 per share,

CATALYST BIOSCIENCES, INC.

NOTES TO FINANCIAL STATEMENTS (continued)

4. Stockholders' Deficit and Convertible Preferred Stock (continued)

respectively. During the years ended December 31, 2014 and 2013, the total intrinsic value of options exercised based upon the difference between the exercise price and the estimated fair value of the shares as of the date of exercise was $0.06 and $0.00, respectively.

Options outstanding that have vested or are expected to vest as of December 31, 2014, are as follows:

	Number of Shares Underlying Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life (In Years)	Aggregate Intrinsic Value
Vested	5,109,350	$ 0.34	5.453	$ 84,378
Expected to Vest	748,782	0.34	5.453	84,378
Total	5,858,132	$ 0.34	5.453	$ 84,378

Options to purchase 0 and 1,500,370 shares of stock were granted to employees during 2014 and 2013, respectively. The compensation expense for the years ended December 31, 2014 and 2013, associated with stock option grants to employees was $0 and $175,713, respectively.

The estimated grant-date fair value-based measurements of the employee stock options were calculated using the Black-Scholes valuation model, based on the following weighted-average assumptions in the years ended December 31, 2014 and 2013:

	December 31,	
	2014	2013
Expected term	5.14 years	5.98 years
Expected volatility	64.62%	78.147%
Risk-free interest rate	1.61%	1.06%
Expected dividend yield	0%	0%

Expected Term. Under the Company's stock option plans, the expected term of options granted is determined using the simplified method which calculates expected term as the midpoint between the vesting date and the expiration date for each award.

Expected Volatility. Since the Company is a private entity with no historical data regarding the volatility of its common stock, the expected volatility used for 2014 and 2013 is based on the volatility of similar publicly traded entities, referred to as "guideline" companies.

Risk-Free Interest Rate. The risk-free rate is based on U.S. Treasury zero-coupon issues with remaining terms similar to the expected term of the options.

Expected Dividend Yield. The Company has never declared or paid any cash dividends and does not plan to pay cash dividends in the foreseeable future, and, therefore, assumed an expected dividend yield of zero.

At December 31, 2014, the Company had employee stock-based compensation expense of $173,704 and at December 31, 2013 of $296,963 related to unvested stock awards not yet recognized, which is expected to be recognized over an estimated weighted-average period of 1.83 years.

CATALYST BIOSCIENCES, INC.

NOTES TO FINANCIAL STATEMENTS (continued)

4. Stockholders' Deficit and Convertible Preferred Stock (continued)

Options Granted to Nonemployees

During 2014 and 2013, options to purchase 325,000 and 149,665 shares, respectively, of common stock were issued to consultants that vest over one to four years with a weighted-average exercise price of $0.29 and $0.44 per share, respectively. During the years ended December 31, 2014 and 2013, the Company recorded stock-based compensation expense attributable to these nonemployee stock awards of $70,710 and $61,670, respectively.

The estimated grant-date fair values of the nonemployee stock options were determined using the Black-Scholes valuation model and the following assumptions:

	Year Ended December 31,	
	2014	2013
Risk-free interest rate	1.61%	1.06%
Expected volatility	64.62%	78%
Expected dividend yield	0%	0%
Weighted-average contractual term	5.14 years	5.98 years

Additional compensation of $180,992 will be recorded in future periods for the remaining unvested portions of the nonemployee option grants.

2012 Retention Plan

On December 5, 2012 the Company adopted a retention bonus plan for service providers, including employees, consultants and non-employee directors, to Catalyst. The plan provides for certain payments to be made to plan participants, up to a maximum of 10% of the total liquidation preference due to holders of Company preferred stock, in the event of a "Corporate Transaction" and corresponding liquidation preference payments made to holders of Company preferred stock.

In the plan, a Corporate Transaction is defined as: a merger in which the Company is not the surviving entity, a sale or disposition of substantially all of the assets of the Company, a complete liquidation or dissolution of the Company, or similar transaction. The retention bonus plan expires on December 5, 2022. No amounts have been accrued or paid through December 31, 2014.

Common Stock Warrants

In August 2004, the Company entered into three separate agreements with three individuals to obtain specified patent licenses related to the development of proteases as a therapeutic platform for oncology. In connection with these agreements, the Company issued warrants to purchase an aggregate of 15,000 shares of common stock of the Company at an exercise price of $0.05 per share. The warrants are exercisable upon the earlier of achieving certain patent-related milestones set forth in the agreement or on the seventh anniversary of the warrant agreement. The warrants were all exercisable and outstanding as of December 31, 2013. The warrants expired on August 9, 2014, unexercised.

In conjunction with the loan agreement that the Company entered into in March 2005 for equipment financing, the Company issued a warrant to the lender to purchase 33,750 shares of Series A convertible preferred stock of the Company at an exercise price of $1.00 per share. In February 2012, corresponding with a bridge loan financing, the warrant to purchase Series A convertible preferred stock was converted into a warrant

CATALYST BIOSCIENCES, INC.

NOTES TO FINANCIAL STATEMENTS (continued)

4. Stockholders' Deficit and Convertible Preferred Stock (continued)

to purchase Company common stock. The fair market value of the warrant at the time of conversion, $13,196, was reclassified as equity. Prior to the conversion the warrant was classified as a liability and at the end of each reporting period changes in the fair value of the warrant during the period are recorded in other income or expense. For the years ended December 31, 2014 and 2013, the Company recorded $0 of other income related to the changes in the fair value of the warrant. The warrant expired on March 3, 2015.

5. Income Taxes

The Company did not record a provision (benefit) for income taxes for the years ended December 31, 2014 and 2013.

Significant components of the Company's deferred tax assets as of December 31, 2014 and 2013 consist of the following (in thousands):

	Year Ended December 31,	
	2014	2013
Deferred tax assets:		
Accruals and reserves	$ 1,382	$ 858
Net operating loss carry forward	44,083	42,828
Tax credits	6,467	6,336
Fixed and intangible assets	43	18
Valuation Allowance	(51,975)	(49,869)
Total deferred tax assets:	—	171
Deferred tax liabilities:		
Fixed Asset Basis Difference	—	(171)
Total deferred tax liabilities:	—	—
Net Deferred	$ —	$ —

Reconciliations of the statutory federal income tax (benefit) to the Company's effective tax for the years ended December 31, 2014 and 2013 are as follows (in thousands):

	Year Ended December 31,	
	2014	2013
Tax (benefit) at statutory federal rate	34.00%	34.00%
State Tax (benefit)—net of federal benefit	-3.24%	1.31%
Permanent differences	1.83%	-0.04%
Credits	1.97%	1.83%
Change in Valuation Allowance	-34.25%	-37.07%
Other	-0.31%	-0.19%
Provision for Taxes	0.00%	-0.16%

Based on the available objective evidence, the Company does not believe it is more likely than not that the net deferred tax assets will be fully realizable. Accordingly, the Company has provided a full valuation allowance against its net deferred tax assets at December 31, 2014 and 2013.

CATALYST BIOSCIENCES, INC.

NOTES TO FINANCIAL STATEMENTS (continued)

5. Income Taxes (continued)

At December 31, 2014 and 2013, the Company had approximately $112 million and $107 million federal net operating loss carry forwards ("NOL"), respectively, available to reduce future taxable income which, if unused, will begin to expire in 2025. At December 31, 2014 and 2013, the Company had approximately $104 million and $102 million state net operating loss carry forwards ("NOL"), respectively, available to reduce future taxable income which, if unused, will begin to expire in 2017. Of the above NOL amounts, $21,000 and $21,000, respectively, relate to windfall stock based compensation deductions which, when utilized, will be credited to equity.

The Company also had tax credit carry forwards available to offset future federal tax liabilities of approximately $5.4 million and $5.3 million for 2014 and 2013, respectively.

The Company had tax credit carry forwards available to offset future state tax liabilities of approximately $4.9 million and $4.8 million for 2014 and 2013, respectively. The federal tax credit, if unused, will begin to expire in 2024. The state tax credit does not expire.

Under Internal Revenue Code Section 382 and related provisions, the benefits from net operating loss and tax credit carry forwards may be limited in the event the Company has a cumulative ownership change of more than 50% over a three year period.

Accounting for Uncertainty in Income Taxes

The Company follows the provisions of the FASB's guidance for accounting for uncertain tax positions. The guidance prescribes a comprehensive model for the recognition, measurement, presentation and disclosure in financial statements of any uncertain tax positions that have been taken or expected to be taken on a tax return.

It is the Company's policy to include penalties and interest expense related to income taxes as a component of other expense and interest expense as necessary.

The unrecognized tax benefit was $2.57 million and $2.52 million at December 31, 2014 and December 31, 2013, respectively. The Company does not expect that its uncertain tax positions will materially change in the next twelve months. No liability related to uncertain tax positions is recorded on the financial statements related to uncertain tax positions. During the year ending December 31, 2014, the amount of unrecognized tax benefits increased due to additional research and development credits generated during the year. The reversal of the uncertain tax benefits would not impact the Company's effective tax rate to the extent that the Company continues to maintain a full valuation allowance against its deferred tax assets.

The unrecognized tax benefit was as follows (in thousands):

Beginning Balance at January 1, 2013	**$ 2,409,043**
Increase/(Decrease) of unrecognized tax benefits taken in prior years	—
Increase/(Decrease) of unrecognized tax benefits related to current year	107,817
Ending Balance at December 31, 2013	**$ 2,516,860**
Beginning Balance at January 1, 2014	**$ 2,516,860**
Increase/(Decrease) of unrecognized tax benefits taken in prior years	—
Increase/(Decrease) of unrecognized tax benefits related to current year	52,684
Ending Balance at December 31, 2014	**$ 2,569,544**

CATALYST BIOSCIENCES, INC.

NOTES TO FINANCIAL STATEMENTS (continued)

5. Income Taxes (continued)

The Company files income tax returns in the United States & California. The Company is not currently under examination by income tax authorities in federal, state or other jurisdictions. All tax returns will remain open for examination by the federal and state authorities from 2011 through 2013 from the date of utilization of any net operating loss or tax credits.

6. Collaborations

Pfizer

On June 29, 2009, Catalyst entered into a collaboration agreement with Wyeth, subsequently acquired by Pfizer, Catalyst and Pfizer collaborated on the development of novel human Factor VIIa products, and Catalyst granted Pfizer the exclusive rights to develop and commercialize the licensed products on a worldwide basis. Under the agreement, during a two-year collaboration period, Pfizer reimbursed Catalyst for certain of its costs incurred in the development of the licensed products, including FTE-based research payments, and Pfizer is obligated to continue to reimburse Catalyst for a portion of Catalyst's costs relating to intellectual property filings and maintenance thereof on products developed in the collaboration. Pfizer is now responsible for all clinical development, manufacturing, and commercialization activities for the Factor VIIa products developed in the collaboration.

Pfizer paid Catalyst an up-front signing fee of $21,000,000, and is also obligated to make contingent cash payments to Catalyst based upon the achievement of predefined milestones. Contract revenue of $4,200,000 for each of the years ended December 31, 2011, and 2010, reflected the amortization of the up-front fee over the estimated period of the Company's performance obligations under the agreement, which was assessed to be five years beginning in June 2009 when the agreement was executed. Further, as Pfizer terminated the research services under the agreement in June 2011 and the Company had no further substantive performance obligations to Pfizer, the Company recognized the remaining $12,576,667 of deferred revenue related to the up-front fee in 2011.

Additionally, during the years ended December 31, 2011, and 2010, the Company recognized $1,602,079 and $2,931,541, respectively, of FTE-based payments for research services as contract revenue as the related services were performed. In the years ended December 31, 2011, and 2010, the Company also recognized $7,000,000 and $4,000,000, respectively, of milestone and other contingent payments received in 2011, and 2010, respectively, upon the achievement of those milestones.

On August 20, 2013 Catalyst and Pfizer entered into an amendment to the Factor VIIa collaboration agreement whereby the companies agreed to provide specific mutual releases and covenants and modify certain milestone payment schedules in the agreement. Per the amendment, Pfizer agreed to make two non-refundable annual license maintenance payments to Catalyst, each $1,500,000, payable on August 1, 2013 and August 1, 2014. Contract revenue related to the agreement in the years 2014 and 2013 was $1,375,000 and $312,500, respectively and reflects the amortization of the annual license maintenance payments received as amortized over the estimated expected performance period for Catalyst per the amendment. The Company had deferred revenue remaining balance in the amount of $1,312,500 and $1,187,500 at December 31, 2014 and December 31, 2013, respectively, related to the Pfizer collaboration.

On April 2, 2015, Pfizer notified the Company that it was exercising its right to terminate in its entirety the June 29, 2009 research and license agreement between the Company and Wyeth. The termination becomes effective 60 days after the Company's receipt of the termination notice. On June 1, 2015, the license and certain

CATALYST BIOSCIENCES, INC.

NOTES TO FINANCIAL STATEMENTS (continued)

6. Collaborations (continued)

rights under the research and license agreement will terminate and revert back to the Company. Pfizer is in the process of transferring clinical trial data, regulatory documentation and related technology under the research and license agreement to the Company to enable the Company to continue the clinical development of this product candidate. The Company has revised the expected period of performance to end on June 1, 2015, which is the effective termination of all performance obligations of the Company under the research and license agreement. As a result, the $1.3 million of deferred revenue as of December 31, 2014 will be recognized ratably through June 1, 2015 rather than through August 31, 2015.

ISU Abxis

On September 16, 2013, Catalyst entered into a license and collaboration agreement with ISU Abxis, whereby Catalyst licensed its proprietary human Factor IX products to ISU Abxis for initial development in South Korea. Under the terms of the agreement, ISU Abxis is responsible for development and manufacturing of the licensed products through Phase 1 clinical trials. Until the completion of Phase 1 development, ISU Abxis also has a right of first refusal with respect to commercialization rights for the licensed products in South Korea. Catalyst has the sole rights and responsibility for worldwide development, manufacture and commercialization of Factor IX products after Phase 1 development, unless ISU Abxis has exercised its right of first refusal regarding commercialization rights in Korea, in which case Catalyst's rights are in the entire world excluding South Korea. ISU's rights will also terminate in the event that Catalyst enters into a license agreement with another party to develop, manufacture and commercialize Factor IX products in at least two major market territories.

ISU Abxis paid Catalyst an up-front signing fee of $1,750,000 and is obligated to pay to Catalyst contingent milestone-based payments on the occurrence of certain defined development events, and reimbursement for a portion of Catalyst's costs relating to intellectual property filings and maintenance thereof on products. Catalyst is obligated to pay ISU Abxis a percentage of all net profits it receives from collaboration products.

Contract revenue of $437,500 and $145,833 for the years ended December 31, 2014 and December 31, 2013, respectively, reflected the amortization of the up-front fee over the estimated period of the Company's performance obligations under the agreement, which was assessed to be four years beginning in September 2013 when the agreement was executed. The Company had deferred revenue remaining balance in the amount of $1,166,667 and $1,604,167 as of December 31, 2014 and December 31, 2013, respectively, related to the ISU Abxis collaboration.

7. Other Income

On August 22, 2013 Catalyst entered into a sub-lease agreement to lease a portion of Catalyst's leased facility in South San Francisco, CA. Under the sub-lease agreement the sublessee pays rent and a share of facility operating expenses monthly to Catalyst. The Company's lease to the facility and the sub-lease arrangement both expired in February 2015 (See Note 9). In 2014 and 2013, the Company recorded $541,720 and $153,266, respectively, in other income related to sub-lease rent and operating expense reimbursement.

8. Litigation

The Company is subject to various legal proceedings and claims arising in the ordinary course of business, which are related to industry-wide legal issues. Management believes that the ultimate resolution of these matters will not have a material adverse effect on the Company's liquidity and results of operations.

CATALYST BIOSCIENCES, INC.

NOTES TO FINANCIAL STATEMENTS (continued)

9. Subsequent Events

The Company evaluated subsequent events for recognition or disclosure through May 22, 2015, the date the financial statements for the year ended December 31, 2014 were available to be issued.

Series F Financing

On January 22, 2015 the Company completed a Series F convertible preferred stock offering that generated $3.3M in gross proceeds. In the offering, the Company issued Series F convertible preferred stock at a price of $1.2706 per share. The Series F convertible preferred stock is convertible at a conversion price of $1.2706 per share. The Series F convertible preferred stock has a conversion rate of 10:1 such that each individual share of Series F convertible preferred stock is convertible into ten shares of common stock. In conjunction with the Series F financing, the Company amended the certificate of incorporation to increase the number of authorized shares. The Company has 160,000,000 shares of authorized common stock, $0.001 par value per share, and the authorized, issued, and outstanding shares of convertible preferred stock, $0.001 par value per share, and liquidation preferences per share thereof were as follows:

	Shares Authorized	Shares Issued and Outstanding	Liquidation Preference Per Share
Series AA	7,327,166	7,327,166	$ 1.0000
Series BB	23,104,618	23,104,618	$ 1.2706
Series BB-1	5,978,477	5,978,477	$ 1.5054
Series CC	46,429,980	46,429,980	$ 1.2706
Series D	629,630	629,630	$ 6.3530
Series E	5,000,000	3,935,140	$ 2.5412
Series F	4,000,000	2,623,650	$ 6.3530
	92,469,871	90,028,661	

All shares of preferred stock have a liquidation preference in the event of a change of control event. In the event of a liquidation or winding up of the Company, holders of Series F convertible preferred stock are entitled to the liquidation preference of $6.3530 for each such share of preferred stock, together with any declared but unpaid dividends, prior to the payment of any distributions to the holders of Series AA, Series BB, Series BB-1, Series C and Series D and Series E convertible preferred stock. The voting rights are equivalent to the voting rights of Series E convertible preferred stock. See Note 4.

New Lease

As of February 23, 2015 Catalyst signed a sublease in the same building that they have occupied since the current lease expired on February 28, 2015. The initial term of the sub-lease starts on March 1, 2015 and ends on August 31, 2015. The Sublease also has an extension option that would go through February 27, 2018. On March 1, 2015 the Company issued a letter of Credit in the amount of $56,947 held in the Company's Money Market account to satisfy the security deposit requested by the sub lessor. The Company also issued a payment to sub lessor in the amount of $368,290 to prepay rent from March through August 31, 2015.

Merger Agreement

Targacept, Inc. ("Targacept") and Catalyst Biosciences, jointly announced on March 5, 2015 that they had entered into a definitive agreement to merge the two companies. Subsequently, Targacept and Catalyst jointly

CATALYST BIOSCIENCES, INC.

NOTES TO FINANCIAL STATEMENTS (continued)

9. Subsequent Events (continued)

amended the March 5, 2015 definitive merger agreement on May 6, 2015 and May 13, 2015. The combined entity, to be named Catalyst Biosciences, Inc., is intended to have combined capital including cash and cash equivalents of approximately $40.0 million at the closing of the transaction. There can be no assurances that the merger will be consummated.

The combined company will issue redeemable convertible notes with an aggregate principal amount of $37.0 million, which provides the potential for future capital investment in the combined company.

As part of the proposed transaction, the equityholders of Catalyst are expected to initially own approximately 58% of the combined company, and the operations of both companies will be combined. The initial ownership percentages are subject to adjustment based on Catalyst's cash balance at closing. Targacept equity holders will retain approximately 42% of the combined company. Targacept stockholders will receive a dividend of an aggregate of $37.0 million in non-interest bearing convertible notes and approximately $19.0 million in cash. The notes will be convertible into the combined company's common stock at any time within thirty months after closing at the noteholders' discretion, at a conversion rate equal to $9.19, which represents 130% of the negotiated per-share value of the Company's assets following the anticipated Pre-Closing Dividend, as adjusted to reflect the planned 7-for-1 reverse stock split described elsewhere in this proxy statement/prospectus/information statement. The combined company will establish an escrow fund of cash sufficient for repayment of any notes that are not converted to stock during the thirty months conversion period. If the redeemable convertible notes are fully converted, an additional $37.0 million held in escrow would be made available to the combined company within the thirty months following closing.

If the merger is consummated, Targacept's name will be changed to Catalyst Biosciences, Inc., and Targacept will apply to change its ticker symbol on the NASDAQ Global Select Market to "CBIO". Catalyst's President and chief executive officer (CEO) will become the President and CEO of the combined company and the other Catalyst executive officers will assume their respective positions in the combined company, with select Targacept executives remaining involved on a transitional basis. The board of directors of the combined company will include four current board members of Catalyst and three from Targacept.

CATALYST BIOSCIENCES, INC.

INDEX TO UNAUDITED INTERIM CONDENSED FINANCIAL STATEMENTS

Unaudited Interim Condensed Financial Statements:

CATALYST BIOSCIENCES, INC.

CONDENSED BALANCE SHEETS

	March 31, 2015 (Unaudited)	December 31, 2014
Assets		
Current assets:		
Cash and cash equivalents	$ 2,068,876	$ 1,543,705
Deposits	—	278,604
Restricted Cash	106,947	50,000
Accounts receivable	382,010	95,063
Prepaid and other current assets	349,228	102,900
Total current assets	2,907,061	2,070,272
Property and equipment, net	798,161	910,981
Total assets	$ 3,705,222	$ 2,981,253
Liabilities, Convertible Preferred Stock and Stockholders' Deficit		
Current liabilities:		
Accounts payable	$ 816,416	$ 248,589
Accrued compensation	241,533	280,730
Other accrued liabilities	532,000	30,000
Deferred revenue, current portion	1,187,500	1,750,000
Deferred rent	—	26,314
Total current liabilities	2,777,449	2,335,633
Deferred revenue, noncurrent portion	619,792	729,167
Warrant liability	312,951	391,361
Total liabilities	3,710,192	3,456,161
Convertible preferred stock:		
Series AA convertible preferred stock, $0.001 par value; 7,327,166 shares authorized as of March 31, 2015 (unaudited) and December 31, 2014; 7,327,166 shares issued and outstanding as of March 31, 2015 (unaudited) and December 31, 2014, aggregate liquidation preference of $7,327,166 as of March 31, 2015 (unaudited) and December 31, 2014;	7,327,166	7,327,166
Series BB convertible preferred stock, $0.001 par value; 23,104,618 shares authorized as of March 31, 2015 (unaudited) and December 31, 2014; 23,104,618 shares issued and outstanding as of March 31, 2015 (unaudited) and December 31, 2014; aggregate liquidation preference of $29,356,728 as of March 31, 2015 (unaudited) and December 31, 2014;	29,356,728	29,356,728
Series BB-1 convertible preferred stock, $0.001 par value; 5,978,477 shares as of March 31, 2015 (unaudited) and December 31, 2014; 5,978,477 shares issued and outstanding as of March 31, 2015 (unaudited) and December 31, 2014; aggregate liquidation preference of $8,999,999 as of March 31, 2015 (unaudited) and December 31, 2014;	8,999,999	8,999,999
Series CC convertible preferred stock, $0.001 par value; 46,429,980 shares as of March 31, 2015 (unaudited) and December 31, 2014; 46,429,980 shares issued and outstanding as of March 31, 2015 (unaudited) and December 31, 2014; aggregate liquidation preference of $58,993,933 as of March 31, 2015 (unaudited) and December 31, 2014	58,175,835	58,175,835
Series D convertible preferred stock, $0.001 par value; 629,630 shares authorized as of March 31, 2015 (unaudited) and December 31, 2014; 629,630 shares issued and outstanding as of March 31, 2015 (unaudited) and December 31, 2014; aggregate liquidation preference of $4,000,039 as of March 31, 2015 (unaudited) and December 31, 2014	781,173	781,173
Series E convertible preferred stock, $0.001 par value 5,000,000 shares authorized as of March 31, 2015 (unaudited) and December 31, 2014; 3,935,140 shares issued and outstanding as of March 31, 2015 (unaudited) and December 31, 2014, aggregate liquidation preference of $9,999,978 as of March 31, 2015 (unaudited) and December 31, 2014.	4,236,100	4,236,100
Series F convertible preferred stock, $0.001 par value 4,000,000 and no shares authorized as of March 31, 2015 (unaudited) and December 31, 2014, respectively; 2,623,650 and no shares issued and outstanding as of March 31, 2015 (unaudited) and December 31, 2014 respectively, aggregate liquidation preference of $16,668,048 as of March 31, 2015 (unaudited).	3,271,099	—
Total convertible preferred stock	112,148,100	108,877,001
Stockholders' deficit:		
Common stock, $0.001 par value; 160,000,000 and 110,000,000 shares authorized as of March 31, 2015 (unaudited) and December 31, 2014 respectively, 9,810,572 and 9,710,572 and shares issued and outstanding as of March 31, 2015 (unaudited) and December 31, 2014, respectively.	9,811	9,710
Additional paid-in capital	6,969,877	6,913,042
Accumulated deficit	(119,132,758)	(116,274,661)
Total stockholders' deficit	(112,153,070)	(109,351,909)
Total liabilities, convertible preferred stock and stockholders' deficit	$ 3,705,222	$ 2,981,253

The accompanying notes are an integral part of these condensed financial statements

CATALYST BIOSCIENCES, INC.

CONDENSED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(UNAUDITED)

	Three months ended March 31,	
	2015	2014
Contract revenue	$ 671,875	$ 296,876
Operating expenses:		
Research and development	1,383,062	1,247,964
General and administrative	2,321,324	911,869
Total operating expenses	3,704,386	2,159,833
Loss from operations	(3,032,511)	(1,862,957)
Other income	96,004	128,598
Change in fair value of warrant liability	78,410	—
Net loss and comprehensive loss	$ (2,858,097)	$ (1,734,359)

The accompanying notes are an integral part of these condensed financial statements

CATALYST BIOSCIENCES, INC.

CONDENSED STATEMENTS OF CASH FLOWS
(UNAUDITED)

	Three months ended March 31,	
	2015	2014
Operating Activities		
Net loss	$ (2,858,097)	$ (1,734,359)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock-based compensation expense	44,036	72,056
Depreciation and amortization	112,820	215,855
Loss on disposal of fixed assets	—	77,489
Change in fair value of warrant liability	(78,410)	—
Changes in operating assets and liabilities:		
Accounts receivable	(286,947)	(17,139)
Prepaid and other current assets	(246,328)	53,803
Accounts payable	567,827	(23,692)
Accrued compensation and other accrued liabilities	462,803	(6,104)
Deferred rent	(26,314)	(37,788)
Deferred revenue	(671,875)	(296,875)
Net cash flows used in operating activities	(2,980,485)	(1,696,754)
Investing Activities		
Change in restricted cash	(56,947)	—
Change in deposits	278,604	—
Proceeds from sale of fixed assets	—	98,000
Net cash flows provided by investing activities	221,657	98,000
Financing Activities		
Proceeds from issuance of convertible preferred stock, net of issuance costs	3,271,099	—
Proceeds from the issuance of common stock upon exercise of stock options	12,900	—
Net cash flows provided by financing activities	3,283,999	—
Net increase (decrease) in cash and cash equivalents	525,171	(1,598,754)
Cash and cash equivalents at beginning of period	1,543,705	2,828,432
Cash and equivalents at end of period	$ 2,068,876	$ 1,229,678

The accompanying notes are an integral part of these condensed financial statements

CATALYST BIOSCIENCES, INC.

NOTES TO UNAUDITED INTERIM CONDENSED FINANCIAL STATEMENTS

1. Nature of Operations and Basis of Presentation

Catalyst Biosciences, Inc. (the Company or Catalyst), was incorporated in the state of Delaware on August 8, 2002. The Company is a clinical-stage biotechnology company focused on engineering proteases as therapeutics for hemophilia, hemostasis, compliment-mediated diseases, and other unmet medical needs. The Company is located in South San Francisco, California and it operates in one segment.

Liquidity

The Company has incurred cumulative net losses of $119.1 million through March 31, 2015 and negative cash flows from operating activities and expects to continue to incur losses for the next several years. Management plans to continue to finance the Company's operations with a combination of revenues from technology licenses, corporate alliances with pharmaceutical companies, equity issuances, and debt arrangements. The Company's operating plans and scope of development programs are directly related to the availability of adequate funds. If adequate funds are not available in the future, the Company may be required to delay, reduce the scope of, or eliminate one or more of its development programs and/or need to reevaluate its operating plans.

These factors raise substantial doubt about the Company's ability to continue as a going concern. The accompanying financial statements have been prepared assuming the Company will continue to operate as a going concern, which contemplates the realization of assets and the settlement of liabilities in the normal course of business. For the year ended December 31, 2014 and 2013, our audited financial statements included an opinion containing an explanatory paragraph as to the uncertainty of our Company's ability to continue as a going concern. Additionally, we have incurred net losses through March 31, 2015 and have yet to establish profitable operations and cash flows from operations. These factors among others raised a substantial doubt about our ability to continue as a going concern. Our unaudited condensed financial statements as of and for the three months ended March 31, 2015 do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of this uncertainty related to the Company's ability to continue as a going concern.

2. Summary of Significant Accounting Policies

Unaudited Interim Financial Information

The interim condensed balance sheet as of March 31, 2015, and the statements of operations and comprehensive loss, and cash flows for the three months ended March 31, 2015 and 2014 are unaudited. The unaudited interim financial statements have been prepared on the same basis as the annual financial statements and reflect, in the opinion of management, all adjustments of a normal and recurring nature that are necessary for the fair presentation of the Company's financial position as of March 31, 2015 and its results of operations and cash flows for the three months ended March 31, 2015 and 2014. The financial data and the other information disclosed in these notes to the financial statements related to the three-month periods are also unaudited. The results of operations for the three months ended March 31, 2015 are not necessarily indicative of the results to be expected for the year ending December 31, 2015 or for any other future annual or interim period. The balance sheet as of December 31, 2014 included herein was derived from the audited financial statements as of that date. These financial statements should be read in conjunction with the Company's audited financial statements.

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. On an ongoing basis, management evaluates its estimates, including those

CATALYST BIOSCIENCES, INC.

NOTES TO UNAUDITED INTERIM CONDENSED FINANCIAL STATEMENTS (continued)

2. Summary of Significant Accounting Policies (continued)

related to revenue recognition, convertible preferred stock and related warrants, common stock and stock-based compensation. The Company bases its estimates on various assumptions that the Company believes to be reasonable under the circumstances. Actual results could differ from those estimates.

Cash and Cash Equivalents

The Company invests its excess cash in bank deposits, consisting primarily of money market mutual funds. The Company considers all highly liquid investments with original maturities of three months or less when purchased to be cash equivalents.

Restricted Cash

At March 31, 2015 and December 31, 2014, the Company had restricted cash of $106,947 and $50,000, respectively. The restricted cash serves as collateral for the Company's corporate credit card and deposit for its facility lease.

Fair Value Measurements

The Company follows Financial Accounting Standards Board (FASB) Accounting Standards Codification Topic 820 (ASC 820), *Fair Value Measurements*. ASC 820 establishes a fair value hierarchy that categorizes observable and unobservable inputs used to measure fair value into three levels, which are described below:

- Level 1: Unadjusted quoted prices in active markets that are accessible at the measurement date for identical assets or liabilities.
- Level 2: Observable inputs other than quoted prices included within Level 1, such as quoted prices for similar assets or liabilities in active markets, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3: Unobservable inputs that are supported by little or no market data. Inputs reflect management's best estimate of what market participants would use in pricing the asset or liability at the measurement date.

As of March 31, 2015 and December 31, 2014, the Company's highly liquid money market funds included within cash equivalents are financial assets that are valued using Level 1 inputs. Liabilities that are measured at fair value consist of the warrant for convertible preferred stock that utilizes Level 3 inputs.

The fair value of the warrant for convertible preferred stock is measured using the Black-Scholes option-pricing model. Inputs used to determine the estimated fair value of the warrant include the estimated fair value of the underlying convertible preferred stock at the valuation measurement date, the remaining contractual term of the warrant, risk-free interest rates, and expected dividends on and expected volatility of the price of the underlying preferred stock.

The following table sets forth the Company's assets and liabilities that were measured at fair value and the level of the inputs used to value those assets and liabilities within the fair value hierarchy:

	Level 1	Level 2	Level 3	Total
As of March 31, 2015:				
Money market funds	$1,638,589	$ —	$ —	$1,638,589
Warrant for convertible preferred stock	—	—	(312,951)	(312,951)
Total	$1,638,589	$ —	$(312,951)	$1,325,638

CATALYST BIOSCIENCES, INC.

NOTES TO UNAUDITED INTERIM CONDENSED FINANCIAL STATEMENTS (continued)

2. Summary of Significant Accounting Policies (continued)

	Level 1	Level 2	Level 3	Total
As of December 31, 2014:				
Money market funds	$1,546,038	$ —	$ —	$1,546,038
Warrant for convertible preferred stock	—	—	(391,361)	(391,361)
Total	$1,546,038	$ —	$(391,361)	$1,154,677

The following table present the activity for liabilities measured at estimated fair value using unobservable inputs for the three months ended March 31, 2015:

	Warrant for Convertible Stock
Beginning balance at December 31, 2014	$ 391,361
Change in estimated fair value	(78,410)
Ending balance at March 31, 2015	$ 312,951

Comprehensive Loss

Comprehensive loss is composed of net loss and other comprehensive income or loss. To date, the Company has not had any significant transactions that are required to be reported in comprehensive loss other than the net loss from operations.

Revenue Recognition

The Company enters into collaboration arrangements that may include the receipt of payments for up-front license fees, success-based milestone payments; full time equivalent (FTE) based payments for research services, and royalties on any future sales of commercialized products that result from the collaborations.

Revenue related to collaborations is recognized when the four basic criteria for revenue recognition are met: (1) persuasive evidence of an arrangement exists; (2) transfer of technology has been completed or services have been rendered; (3) the fee is fixed or determinable; and (4) collectability is reasonably assured.

Revenue recognition for multiple revenue arrangements will have deliverables associated with the arrangement divided into separate units of accounting provided that (i) a delivered item has value to the customer on a standalone basis and (ii) if the arrangement includes a general right of return relative to the delivered item, delivery or performance of the undelivered item is considered probable and substantially in the control of the vendor. As a biotechnology company with unique and specialized technological undelivered performance obligations associated with its collaborations, the Company's multiple element arrangements most often involve deliverables and consideration that do not meet the criteria for having stand alone value.

Deliverables and performance obligations are accounted for under a single unit of accounting when they do not have stand-alone value and the related consideration is recognized as revenue over the estimated period of when the performance obligations are to be performed. The revenue is recognized on a proportional performance basis when the levels of the performance obligations under an arrangement can be reasonably estimated and on a straight-line basis when they cannot.

CATALYST BIOSCIENCES, INC.

NOTES TO UNAUDITED INTERIM CONDENSED FINANCIAL STATEMENTS (continued)

2. Summary of Significant Accounting Policies (continued)

The Company's collaboration agreements entitle it to additional payments upon the achievement of performance-based milestones related to product development, regulatory actions and commercial events in certain geographic areas. Milestones that are not deemed probable or that are tied to counter-party performance are not included in the Company's revenue until the performance conditions are met. If a collaborative agreement milestone is deemed to be substantive, as defined in the accounting rules, the Company is permitted to recognize revenue related to the milestone payment in its entirety.

In the event milestones are deemed non-substantive, the Company recognizes, and defers if applicable, payments for the achievement of such non-substantive milestones over the estimated period of performance applicable to each collaborative agreement using the proportional performance method or on a straight-line basis, as appropriate.

Collaborative agreement amounts received prior to satisfying revenue recognition criteria are recorded as deferred revenue in the accompanying balance sheets. Deferred revenue is recorded on the Company's balance sheet as short-term or long-term based on its best estimate as to when such revenue will be recognized. Short-term deferred revenue consists of amounts that the Company expects to recognize as revenue in the next 12 months. Amounts that the Company expects will not be recognized prior to the next 12 months are classified as long-term deferred revenue.

The Company's performance obligations under its collaboration arrangements also consist of participation on steering committees and the performance of other research and development and business development services. The timing for satisfying these performance obligations can be difficult to estimate and can be subject to change over the course of these agreements. A change in the estimated timing for satisfying the Company's performance obligations could change the timing and amount of revenue that the Company recognizes and records in future periods.

Research and Development Expenses

Research and development costs are expensed as incurred. Research and development costs consist of payroll and other personnel-related expenses, laboratory supplies and reagents, contract research and development services, and consulting costs, as well as allocations of facilities and other overhead costs. Under the Company's collaboration agreements, certain specific expenditures are reimbursed by third parties. During the three months ended March 31, 2015 and 2014, the Company recorded a reduction to research and development expenses of $382,010 and $113,232, respectively.

3. Convertible Preferred Stock

In January 2015, the Company completed a Series F convertible preferred stock offering that generated $3,271,099, net of $62,511 of issuance costs. In the offering, the Company issued 2,623,650 shares of Series F convertible preferred stock at a price of $1.2706 per share. The Series F convertible preferred stock has a conversion rate of 10:1 such that each individual share of Series F convertible preferred stock is convertible into ten shares of common stock. In conjunction with the Series F financing, the Company also amended the certificate of incorporation to increase the number of authorized shares of common stock to 160,000,000 shares.

All shares of convertible preferred stock have a liquidation preference in the event of a change of control event. In the event of a liquidation or winding up of the Company, holders of Series F convertible preferred stock are entitled to the liquidation preference of $6.3530 for each such share of preferred stock, together with any

CATALYST BIOSCIENCES, INC.

NOTES TO UNAUDITED INTERIM CONDENSED FINANCIAL STATEMENTS (continued)

3. Convertible Preferred Stock (continued)

declared but unpaid dividends, prior to the payment of any distributions to the holders of Series AA, Series BB, Series BB-1, Series C and Series D and Series E convertible preferred stock. The voting rights are equivalent to the voting rights of Series E convertible preferred stock.

4. Stock Based Compensation

2004 Incentive Stock Plan

The 2004 Stock Plan (the Plan) has expired in 2014 and no more options can be issued under the Plan. The following table summarizes stock option activity under the Plan, including stock options granted to non-employees, and related information:

	Number of Shares Underlying Outstanding Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (Years)
Outstanding—December 31, 2014	6,226,183	$ 0.35	5.51
Options exercised	(100,000)	0.13	
Options canceled	(62,912)	0.44	
Outstanding—March 31, 2015	6,063,271	$ 0.35	5.07
Exercisable—March 31, 2015	5,480,803	$ 0.34	4.80
Vested and expected to vest—March 31, 2015	5,967,250	$ 0.35	5.04

Since the 2004 Incentive Stock Plan expired the Company has issued options for the purchase of common stock outside of the plan. The following table summarizes stock option activity for options issued outside of the plan. Stock options have only been granted to non-employees outside the plan.

	Number of Shares Underlying Outstanding Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (Years)
Outstanding—December 31, 2014	325,000	$ 0.29	9.15
Options granted	255,513	0.29	
Options exercised	—	—	
Options canceled	(8,334)	0.29	
Outstanding—March 31, 2015	572,179	0.29	9.31
Exercisable—March 31, 2015	348,605	$ 0.29	8.98
Vested and expected to vest—March 31, 2015	555,411	$ 0.29	9.29

The weighted-average grant fair value of options granted during the three months ended March 31, 2015 and 2014 was $0.18 and $0.16 per share, respectively. During the three months ended March 31, 2015 and 2014, the total intrinsic value of options exercised based upon the difference between the exercise price and the estimated fair value of the shares as of the date of exercise was $16,100 and zero, respectively. The weighted-average grant dater fair value of options vested during the three months ended March 31, 2015 and 2014 was $0.26 and $0.16 per share, respectively.

CATALYST BIOSCIENCES, INC.

NOTES TO UNAUDITED INTERIM CONDENSED FINANCIAL STATEMENTS (continued)

4. Stock Based Compensation (continued)

Stock-based compensation related to stock options granted to non-employees is subject to periodic re-measurement over the period that services are rendered. The estimated fair values of the nonemployee stock options were determined using the Black-Scholes valuation model and the following assumptions:

	Three months ended March 31,	
	2015	2014
Expected term	6.45	5.13
Expected volatility	66.95%	64.45%
Risk-free interest rate	1.54%	1.60%
Expected dividend yield	0%	0%

Total stock-based compensation recognized was as follows:

	Three months ended March 31,	
	2015	2014
Research and development	$11,136	$21,295
General and administrative	32,900	50,761
Total stock-based compensation	$44,036	$72,056

As of March 31, 2015, the Company had unrecognized employee stock-based compensation expense of $170,828, related to unvested stock awards, which is expected to be recognized over an estimated weighted-average period of 1.48 years.

5. Collaborations

Pfizer

On August 20, 2013, the Company and Pfizer, Inc. (“Pfizer”) entered into an amendment to the Factor VIIa collaboration agreement whereby the companies agreed to provide specific mutual releases and covenants and modify certain milestone payment schedules in the agreement. Per the amendment, Pfizer agreed to make two non-refundable annual license maintenance payments to the Company, each $1,500,000, payable on August 1, 2014 and August 1, 2013. Contract revenue related to the agreement with Pfizer during three months ended March 31, 2015 and 2014 was $562,500 and $187,500, respectively and reflects the amortization of the annual license maintenance payments received as amortized over the estimated expected performance period under the arrangement, which the Company estimated to end August 1, 2015. The deferred revenue balance related to the Pfizer collaboration was $750,000 and $1,312,500 as of March 31, 2015 and December 31, 2014, respectively.

On April 2, 2015, Pfizer notified the Company that it was exercising its right to terminate in its entirety the collaboration agreement. The termination becomes effective 60 days after the Company’s receipt of the termination notice. On June 1, 2015, the license and certain rights under the research and license agreement will terminate and revert back to the Company. Pfizer is in the process of transferring clinical trial data, regulatory documentation and related technology under the research and license agreement to the Company. The Company plans to continue clinical development of this product candidate. The Company has revised the expected period of performance to end on June 1, 2015, which is the effective termination of all performance obligations of the Company under the research and license agreement. As a result, the $750,000 of deferred revenue as of March 31, 2015 will be recognized ratably from April 2, 2015 through June 1, 2015 (the revised estimated performance period).

CATALYST BIOSCIENCES, INC.

NOTES TO UNAUDITED INTERIM CONDENSED FINANCIAL STATEMENTS (continued)

5. Collaborations (continued)

ISU Abxis

On September 16, 2013, the Company entered into a license and collaboration agreement with ISU Abxis, whereby the Company licensed its proprietary human Factor IX products to ISU Abxis for initial development in South Korea. Under the terms of the agreement, ISU Abxis is responsible for development and manufacturing of the licensed products through Phase 1 clinical trials. Until the completion of Phase 1 development, ISU Abxis also has a right of first refusal with respect to commercialization rights for the licensed products in South Korea. The Company has the sole rights and responsibility for worldwide development, manufacture and commercialization of Factor IX products after Phase 1 development, unless ISU Abxis has exercised its right of first refusal regarding commercialization rights in Korea, in which case the Company's rights are in the entire world excluding South Korea. ISU's rights will also terminate in the event that the Company enters into a license agreement with another party to develop, manufacture and commercialize Factor IX products in at least two major market territories.

ISU Abxis paid the Company an up-front signing fee of $1,750,000 and is obligated to pay to the Company contingent milestone-based payments on the occurrence of certain defined development events, and reimbursement for a portion of the Company's costs relating to intellectual property filings and maintenance thereof on products. The Company is obligated to pay ISU Abxis a percentage of all net profits it receives from collaboration products.

Contract revenue of $109,375 for the three months ended March 31, 2015 and 2014, reflected the amortization of the up-front fee over the estimated period of the Company's performance obligations under the agreement, which was assessed to be four years beginning in September 2013 when the agreement was executed. The deferred revenue balance related to the ISU Abxis collaboration was $1,057,292 and $1,166,667 as of March 31, 2015, and December 31, 2014 respectively.

6. Merger Agreement

Targacept, Inc. ("Targacept") and Catalyst Biosciences, jointly announced March 5, 2015 that they have entered into a definitive agreement to merge the two companies. Subsequently, Targacept and Catalyst jointly amended the March 5, 2015 definitive merger agreement on May 6, 2015 and May 13, 2015. The combined entity, to be named Catalyst Biosciences, Inc., is intended to have combined capital including cash and cash equivalents of approximately $40.0 million at the closing of the transaction. There can be no assurances that the merger will be consummated.

The combined company will issue redeemable convertible notes with an aggregate principal amount of $37.0 million, which provides the potential for future capital investment in the combined company.

As part of the proposed transaction, the equityholders of Catalyst are expected to initially own approximately 58% of the combined company, and the operations of both companies will be combined. The initial ownership percentages are subject to adjustment based on Catalyst's cash balance at closing. In addition to retaining common stock representing approximately 42% of the combined company, current Targacept stockholders will receive a dividend of an aggregate of $37.0 million in non-interest bearing convertible notes and approximately $19.0 million in cash. The notes will be convertible into the combined company's common stock at any time within thirty months after closing at the noteholders' discretion, at a conversion rate equal to $9.19, which represents 130% of the negotiated per-share value of the Company's assets following the anticipated Pre-Closing Dividend, as adjusted to reflect the planned 7-for-1 reverse stock split described elsewhere in this proxy statement/prospectus/information statement. The combined company will establish an escrow fund of cash

CATALYST BIOSCIENCES, INC.

NOTES TO UNAUDITED INTERIM CONDENSED FINANCIAL STATEMENTS (continued)

6. Merger Agreement (continued)

sufficient for repayment of any notes that are not converted to stock during the thirty months conversion period. If the redeemable convertible notes are fully converted, an additional $37.0 million held in escrow would be made available to the combined company within the thirty months following closing.

If the merger is consummated, Targacept's name will be changed to Catalyst Biosciences, Inc., and Targacept will apply to change its ticker symbol on the NASDAQ Global Select Market to "CBIO". Catalyst's President and chief executive officer (CEO) will become the President and CEO of the combined company and the other Catalyst executive officers will assume their respective positions in the combined company, with select Targacept executives remaining involved on a transitional basis. The board of directors of the combined company will include four current board members of Catalyst and three from Targacept.

Index to Unaudited Pro Forma Condensed Combined Financial Statements

UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL STATEMENTS

The following information does not give effect to the proposed reverse stock split of Targacept common stock described in Targacept Proposal No. 2.

The following unaudited pro forma condensed combined financial statements were prepared using the acquisition method of accounting under existing U.S. generally accepted accounting principles, or GAAP, and give effect to the proposed merger between Catalyst and Targacept. For accounting purposes, Catalyst is considered to be acquiring Targacept in the merger. Catalyst was determined to be the accounting acquirer based upon the terms of the merger and other factors including; (i) Catalyst security holders are anticipated to own approximately 58% of the combined company immediately following the closing of the merger, (ii) Catalyst directors will hold a majority of board seats in the combined company, and (iii) Catalyst management will hold a majority of key positions in the management of the combined company. The merger will be accounted for as an asset acquisition rather than business combination because the assets acquired and liabilities assumed by Catalyst do not meet the definition of a business as defined by GAAP.

The unaudited pro forma condensed combined balance sheet as of March 31, 2015 assumes that the merger took place on March 31, 2015 and combines the historical balance sheets of Targacept and Catalyst as of March 31, 2015. The unaudited pro forma condensed combined statement of operations for the three months ended March 31, 2015 assumes that the merger took place as of January 1, 2015, and combines the historical results of Targacept and Catalyst for the three months ended March 31, 2015. The unaudited pro forma condensed combined statement of operations for the year ended December 31, 2014 assumes that the merger took place as of January 1, 2014, and combines the historical results of Targacept and Catalyst for the year ended December 31, 2014. The historical financial statements of Targacept and Catalyst, which are provided elsewhere in this proxy statement/prospectus/information statement, have been adjusted to give pro forma effect to events that are (i) directly attributable to the merger, (ii) factually supportable, and (iii) with respect to the statement of operations, expected to have a continuing impact on the combined results.

The unaudited pro forma condensed combined financial statements are based on the assumptions and adjustments that are described in the accompanying notes. The unaudited pro forma condensed combined financial statements and pro forma adjustments have been prepared based on preliminary estimates of fair value of assets acquired and liabilities assumed. Differences between these preliminary estimates and the final acquisition accounting will occur and these differences could have a material impact on the accompanying unaudited pro forma condensed combined financial statements and the combined company’s future results of operations and financial position. The actual amounts recorded as of the completion of the merger may differ materially from the information presented in these unaudited pro forma combined financial statements as a result of the amount, if any, of capital raised by Catalyst between entering the Merger Agreement and closing of the merger; the amount of cash used by Targacept operations between the signing of the Merger Agreement and the closing of the merger; the timing of closing of the merger; and other changes in the Targacept assets and liabilities that occur prior to the completion of the merger.

The unaudited pro forma condensed combined financial statements do not give effect to the potential impact of current financial conditions, regulatory matters, operating efficiencies or other savings or expenses that may be associated with the acquisition. The unaudited pro forma condensed combined financial statements have been prepared for illustrative purposes only and are not necessarily indicative of the financial position or results of operations in future periods or the results that actually would have been realized had Catalyst and Targacept been a combined company during the specified period. The unaudited pro forma condensed combined financial statements, including the notes thereto, should be read in conjunction with the Catalyst and Targacept historical audited financial statements for the year ended December 31, 2014 and the unaudited condensed financial statements for the three months ended March 31, 2015 included elsewhere in this proxy statement/prospectus/information statement.

Unaudited Pro Forma Condensed Combined Balance Sheet
March 31, 2015
(In thousands)

	Targacept, Inc.	Catalyst Biosciences, Inc.	Pro Forma Merger Adjustment		Pro Forma Combined
Assets					
Current assets:					
Cash and cash equivalents	$ 73,113	$ 2,069	$ (19,000)	E	$ 48,410
			(11,412)	G	
			3,640	D	
Investments in marketable securities—short term	31,646		(31,646)	G	—
Restricted cash		107	37,000	F	37,107
Accounts receivable	68	382	(68)	G	382
Prepaid expenses and other current assets	409	349	(91)	G	667
Total current assets	105,236	2,907	(21,577)		86,566
Investments in marketable securities—long term	1,518		(1,518)	G	—
Property and equipment, net	373	798	(373)	G	798
Other assets	9		(3)	G	6
Total assets	$ 107,136	$ 3,705	$ (23,471)		$ 87,370
Liabilities, convertible preferred stock and stockholders' equity (deficit)					
Current liabilities:					
Accounts payable	$ 1,189	$ 816	$ (1,183)	G	$ 822
Accrued liabilities	2,714	774	5,305	G	8,793
Redeemable convertible notes payable	—	—	37,000	F	28,982
			(8,018)	F	
Embedded derivative—conversion option	—		8,018	F	8,018
Deferred revenue, current portion	—	1,187			1,187
Total current liabilities	3,903	2,777	41,122		47,802
Deferred revenue, noncurrent	—	620			620
Warrant Liability	—	313	(313)	C	—
Total liabilities	3,903	3,710	40,809		48,422
Convertible preferred stock	—	112,148	(112,148)	C	—
Stockholders' equity:					
Common stock	34	10	(34)	A	82
			71	C	
			1	B	
Additional paid-in capital	423,184	6,970	(404,184)	A	157,999
			(19,000)	E	
			112,390	C	
			3,640	D	
			34,999	B	
Accumulated other comprehensive loss	23	—	(23)	A	—
Accumulated deficit	(320,008)	(119,133)	320,008	A	(119,133)
Total stockholders' equity (deficit)	103,233	(112,153)	47,868		38,948
Total liabilities, convertible preferred stock and stockholders' equity	$ 107,136	$ 3,705	$ (23,471)		$ 87,370

See accompanying notes to the unaudited pro forma condensed combined financial statements.

Unaudited Pro Forma Condensed Combined Statement of Operations

(In thousands, except share and per share data)

	For Three Months Ended March 31, 2015				
	Targacept, Inc.	Catalyst Biosciences, Inc.	Pro Forma Merger Adjustment		Pro Forma Combined
Revenue	$ 60	$ 672			$ 732
Operating expenses:					
Research and development	2,340	1,383			3,723
General and administrative	3,387	2,321			5,708
Reduction in force	1,156	—			1,156
Total operating expenses	6,883	3,704			10,587
Loss from operations	(6,823)	(3,032)			(9,855)
Other income, net	92	174	(78)	H	188
Loss before income taxes	(6,731)	(2,858)			$ (9,667)
Income tax expense	21	—			21
Net loss	$ (6,752)	$ (2,858)	$ (78)		$ (9,688)
Basic and diluted net loss per share	$ (0.20)	$ (0.29)			$ (0.12)
Weighted average common share outstanding—basic and diluted	33,796,380	9,751,016	38,361,950	I	81,909,346

See accompanying notes to the unaudited pro forma condensed combined financial statements.

Unaudited Pro Forma Condensed Combined Statement of Operations

(In thousands, except share and per share data)

	Year Ended December 31, 2014				
	Targacept, Inc.	Catalyst Biosciences, Inc.	Pro Forma Merger Adjustment		Pro Forma Combined
Revenue	$ 275	$ 1,813			$ 2,088
Operating expenses:					
Research and development	19,499	5,267			24,766
General and administrative	10,172	4,055			14,227
Reduction in force	318	—			318
Total operating expenses	29,989	9,322			39,311
Loss from operations	(29,714)	(7,509)			(37,223)
Other income, net	575	896	(355)	H	1,116
Loss before income taxes	(29,139)	(6,613)			$ (36,107)
Income tax expense	3,484	—			3,484
Net loss	$ (32,623)	$ (6,613)	$ (355)		$ (39,591)
Basic and diluted net loss per share	$ (0.97)	$ (0.69)			$ (0.48)
Weighted average common share outstanding—basic and diluted	33,780,433	9,622,682	38,506,231	I	81,909,346

See accompanying notes to the unaudited pro forma condensed combined financial statements.

NOTES TO THE UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION

1. Description of Transaction and Basis of Presentation

Description of Transaction

On March 5, 2015, Catalyst Biosciences, Inc. (Catalyst) entered into a Merger Agreement with Targacept, Inc. (Targacept) which was subsequently amended on May 6, 2015 and May 13, 2015, pursuant to which, among other things, subject to the satisfaction or waiver of the conditions set forth in the Merger Agreement, a wholly-owned subsidiary of Targacept will be merged with and into Catalyst, with Catalyst continuing as the surviving corporation and a wholly owned subsidiary of Targacept. Immediately following the effective time of the merger, existing Catalyst equity holders are expected to own approximately 58% of the combined company, and existing Targacept equity holders are expected to own approximately 42% of the combined company. Catalyst is considered to be the acquiring company for accounting purposes in this transaction.

Under the terms of the Merger Agreement, Catalyst is required, at the time of closing of the merger, to have a minimum “net cash,” as defined in the Merger Agreement, balance of $3,500,000, with a target cash balance of $5,000,000, both of which are subject to adjustment based on the date of the closing of the merger. Accordingly, the unaudited pro forma condensed combined financial statements assume that the Catalyst net cash balance will be $5,000,000 as of the closing of the merger due to an assumed sale by Catalyst, prior to the closing of the merger, of $3,640,000 of equity securities.

At the effective time of the merger, each outstanding share of the common stock of Catalyst will be converted into the right to receive that number of shares of Targacept common stock as determined pursuant to the exchange ratios described in the Merger Agreement, and all outstanding options, warrants or other rights to purchase shares of capital stock of Catalyst, will be exchanged for rights to acquire Targacept common stock. The unaudited pro forma condensed combined financial statements assume an exchange ratio of 0.3632 shares of Targacept common stock for each share of Catalyst common stock. This assumed exchange ratio is based on shares of Catalyst and Targacept capital stock outstanding as of May 15, 2015, assumes no future issuances of Targacept or Catalyst capital stock prior to the closing of the merger, and assumes that Catalyst’s net cash balance at closing reaches the $5,000,000 target set forth in the Merger Agreement (as described above), subject to adjustments as described in this proxy statement/prospectus/information statement, including Targacept’s proposed reverse common stock split. The exchange ratio, and accordingly, the number of shares of Targacept common stock received by Catalyst equity holders upon closing the merger, will be adjusted based on the amount Catalyst’s net cash balance exceeds or falls short of the target net cash balance and based on the number of shares of Catalyst and Targacept outstanding or issuable as of the closing.

Prior to the closing of the merger, Targacept expects to distribute to its stockholders a dividend of approximately $37,000,000 in aggregate principal amount of redeemable convertible notes and approximately $19,000,000 in cash (the “Pre-Closing Dividend”). The notes will be convertible into shares of common stock of the combined company at a conversion rate of $1.313 per share, which represents 130% of the negotiated $1.01 per-share value of Targacept’s assets following the anticipated Pre-Closing Dividend.

Basis of Presentation

The unaudited pro forma condensed combined financial statements were prepared in accordance with the regulations of the Securities and Exchange Commission. The unaudited pro forma condensed combined balance sheet as of March 31, 2015 is presented as if the merger had been completed on March 31, 2015. The unaudited pro forma condensed combined statement of operations for the three months ended March 31, 2015 combines the unaudited historical statements of operations of Targacept and Catalyst for their respective three month period ended March 31, 2015, and gives pro forma effect to the merger as if it had been completed on January 1, 2015. The unaudited pro forma condensed combined statement of operations for the year ended December 31, 2014

NOTES TO THE UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION (continued)

combines the audited historical statements of operations of Targacept and Catalyst for their respective year ended December 31, 2014, and gives pro forma effect to the merger as if it had been completed on January 1, 2014. Based on the terms of the merger, Catalyst is deemed to be the acquiring company for accounting purposes and the transaction will be accounted for as an asset acquisition in accordance with accounting principles generally accepted in the United States. Accordingly, assets and liabilities of Catalyst will be recorded as of the merger closing date at their respective carrying value and assets and liabilities of Targacept will be recorded as of the merger closing date at their fair value.

The pro forma adjustments are preliminary and based on the fair value of the assets acquired and liabilities assumed and have been prepared to illustrate the estimated effect of the asset acquisition. These estimates are based on the most recently available information. Under GAAP, transaction costs in an asset acquisition would be capitalized and applied to the fair value of non-financial assets acquired and remaining in the combined company. However, because there are no non-financial assets acquired, Catalyst's transaction costs will be expensed as incurred. To the extent there are significant changes to the combined company's business following completion of the merger, the assumptions and estimate set forth in the unaudited pro forma condensed combined financial statements could change significantly. Accordingly, the pro forma purchase price adjustments are subject to further adjustments as additional information becomes available and as additional analysis are conducted following the completion of the merger. There can be no assurances that these additional analyses will not result in material changes to the estimates of fair value.

The unaudited pro forma condensed combined financial statements are based on the application of the exchange ratio to the adjusted enterprise market value derived from Targacept's market value as of March 5, 2015. The market value of Targacept's common stock at the completion of the merger may be more or less than the market price at March 5, 2015. No adjustments to the exchange ratio will be made based on changes in the trading price of Targacept's common stock or the value of Catalyst capital stock prior to completion of the merger. As a result, upon closing of the merger, the value of the shares of Targacept common stock issued or issuable to Catalyst stockholders in connection with the merger could be substantially less or substantially more than the current market value of Targacept's common stock. The unaudited pro forma condensed combined financial statements do not reflect the reverse stock split discussed in Proposal No. 2.

2. Purchase Price

The preliminary estimated total purchase price of the merger is as follows (in thousands):

Cash and cash equivalents and investments in marketable securities	$ 35,000
Restricted cash	37,000
Estimated fair value of convertible notes	(37,000)
Estimated total purchase price of net assets acquired	$ 35,000

For pro forma purposes, the estimated purchase price of net assets acquired was based on the estimated fair values of assets acquired and the liabilities assumed pursuant to the Merger Agreement on March 5, 2015 as amended on May 6, 2015 and May 13, 2015. Catalyst is accounting for the merger as an asset acquisition as the primary assets being acquired are cash and cash equivalents and investments in marketable securities. In addition, Catalyst is acquiring restricted cash and related convertible notes for the same amount, resulting in no net impact to the net assets acquired. The fair value of the assets being acquired is deemed to be the best indication of the purchase price, and is therefore assigned to the Targacept common stock that will be issued to Catalyst stockholders in connection with the merger.

The allocation of the estimated purchase price is preliminary because the merger has not yet been completed. The final determination of the purchase price allocation is anticipated to be based on the relative fair value of assets,

NOTES TO THE UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION (continued)

including identifiable intangible assets acquired, if any, and the fair values of liabilities assumed as of the merger closing date. The final amounts allocated to assets acquired and liabilities assumed could differ significantly from the amounts presented in the unaudited pro forma condensed combined financial statements.

3. Pro Forma Adjustments

The unaudited pro forma condensed combined financial statements include pro forma adjustments to give effect to certain significant transactions of Catalyst as a direct result of the merger, or for accounting purposes, the acquisition of Targacept net assets by Catalyst . The pro forma adjustments reflecting the completion of the merger are based upon the preliminary accounting analysis conclusion that the merger should be accounted for under the acquisition method of accounting and upon the assumptions set forth below.

The unaudited pro forma condensed combined financial statements reflect the anticipated ongoing operations of the combined company. Therefore, the unaudited pro forma condensed combined financial statements do not include balances or transactions related to non-cash stock based compensation as a result of accelerated vesting upon a change in control or related to Targacept's NNR Assets, including i) charges related to the close-out costs for Targacept's clinical and non-clinical studies and related costs, and ii) any amounts received from third parties as a result of Targacept's potential disposal of the NNR Assets. Any cash from Targacept in excess of $35,000,000 remaining after the settlements of these close-out costs and disposals will be distributed as a part of the Pre-Closing Dividend.

The pro forma adjustments are as follows:

(A) To reflect the elimination of Targacept's historical stockholders' equity balances, including accumulated deficit.

(B) To reflect the issuance of Targacept common stock to Catalyst stockholders in the merger with a fair value based on the fair value of assets acquired

(C) To reflect the conversion of Catalyst's convertible preferred stock to Targacept common stock and Catalyst's warrant liability to a warrant to purchase Targacept's common stock in connection with the merger.

(D) To reflect the assumed $3,640,000 capital raise by Catalyst shareholders before closing to meet the target net cash requirement pursuant to the Merger Agreement.

(E) To reflect the payment to Targacept shareholders of the cash portion of the Pre-Closing Dividend of approximately $19,000,000.

(F) To reflect the issuance by Targacept and assumption by Catalyst of the $37,000,000 in redeemable convertible notes payable and the estimated fair value of the embedded derivatives, including conversion option, and the related cash from Targacept to be utilized for any cash redemption of the notes.

(G) To reflect Targacept's wind down of operations including cash reserved for severance charges for Targacept employees, tail insurance coverage and final merger related costs.

(H) To reflect the removal of the change in fair value of the preferred stock warrants liability due to the conversion of Catalyst's preferred warrant to purchase to Targacept's common stock in the related statement of operations.

(I) To reflect:

i) the issuance of Targacept common stock to Catalyst common and preferred stockholders in connection with the merger at the anticipated exchange ratio, and

ii) the vesting of Targacept unvested shares upon completion of the merger.

NOTES TO THE UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION (continued)

4. Redeemable Convertible Notes

Targacept stockholders will receive a dividend of an aggregate of $37,000,000 in non-interest bearing redeemable convertible notes. The notes will be convertible into the combined company's common stock at any time within 30 months after closing at the noteholders' discretion. The conversion rate of the notes is equal to $1.313, which represents 130% of the negotiated $1.01 per-share value of Targacept's assets following the anticipated distribution of the dividend of approximately $19,000,000 in cash and $37,000,000 principal amount of the notes. The conversion rate is subject to adjustment in the event of a reverse stock split of the combined company's common stock. The combined company will establish an escrow fund for the redemption of any notes that are not converted to common stock during the two-year conversion period. If the redeemable convertible notes are fully converted into common stock, the $37,000,000 of funds held in an indenture escrow would be made available to the combined company within the 30 months following closing.

The redemption features and conversion features of the redeemable convertible notes are determined to be embedded derivatives requiring bifurcation and separate accounting. The estimated fair value of the embedded derivative liability at issuance is determined to be $8,018,000, which be recorded as debt discount to be amortized as interest expense over the term of the convertible notes using the effective interest rate method. In addition, changes in the fair value of the embedded derivative will be recorded within other income (expense) in the statement of operations. The combined company will periodically remeasure the derivative liability to fair value.

Annex A-1

AGREEMENT AND PLAN OF MERGER

among:

TARGACEPT, INC.,
a Delaware corporation;

TALOS MERGER SUB, INC.,
a Delaware corporation; and

CATALYST BIOSCIENCES, INC.,
a Delaware corporation

Dated as of March 5, 2015

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AGREEMENT AND PLAN OF MERGER

THIS AGREEMENT AND PLAN OF MERGER (this "**Agreement**") is made and entered into as of March 5, 2015, by and among Targacept, Inc., a Delaware corporation ("**Talos**"); Talos Merger Sub, Inc., a Delaware corporation and a wholly-owned subsidiary of Talos ("**Merger Sub**"); and Catalyst Biosciences, Inc., a Delaware corporation (the "Company"). Certain capitalized terms used in this Agreement are defined in Exhibit A.

RECITALS

A. Talos and the Company intend to merge Merger Sub with and into the Company (the "**Merger**") in accordance with this Agreement and the DGCL. Upon consummation of the Merger, Merger Sub will cease to exist, and the Company will become a wholly-owned subsidiary of Talos.

B. For U.S. federal income tax purposes, Talos, Merger Sub and the Company intend that the Merger will qualify as a "reorganization" within the meaning of Section 368(a) of the Code, that this Agreement will constitute a "plan of reorganization" for purposes of Sections 354 and 361 of the Code, and that Talos, Merger Sub and the Company will each be a "party to the reorganization" within the meaning of Section 368(b) of the Code.

C. Talos and the Company intend that the Pre-Closing Dividend (defined below) shall have been declared as of a record date, and paid to holders of Talos Common Stock, prior to the Closing Date (defined below) of the Merger, which declaration and payment of the Pre-Closing Dividend is a material inducement for certain stockholders of Talos to execute the Talos Voting Agreements (defined below).

D. The Board of Directors of Talos (i) has determined that the Merger is advisable and in the best interests of Talos and its stockholders, (ii) has approved this Agreement, the Merger, the issuance of shares of Talos Common Stock to the stockholders of the Company and the payment of the Pre-Closing Dividend to the stockholders of Talos pursuant to the terms of this Agreement, and the other actions contemplated by this Agreement and has deemed this Agreement advisable and (iii) has determined to recommend that the stockholders of Talos vote to approve the issuance of shares of Talos Common Stock to the stockholders of the Company pursuant to the terms of this Agreement, and such other actions as contemplated by this Agreement.

E. The Board of Directors of Merger Sub (i) has determined that the Merger is advisable and in the best interests of Merger Sub and its sole stockholder, (ii) has approved this Agreement, the Merger, and the other actions contemplated by this Agreement and has deemed this Agreement advisable and (iii) has determined to recommend that the sole stockholder of Merger Sub vote to approve the Merger and such other actions as contemplated by this Agreement.

F. The Board of Directors of the Company (i) has determined that the Merger is advisable and in the best interests of the Company and its stockholders, (ii) has approved this Agreement, the Merger and the other actions contemplated by this Agreement and has deemed this Agreement advisable and (iii) has approved and determined to recommend the approval and adoption of this Agreement and the approval of the Merger to the stockholders of the Company.

G. In order to induce the Company to enter into this Agreement and to cause the Merger to be consummated, certain stockholders of Talos listed on Schedule A-1 hereto, are executing voting agreements in favor of the Company concurrently with the execution and delivery of this Agreement in substantially the form attached hereto as Exhibit B-1 (the "**Talos Voting Agreements**").

H. In order to induce Talos and Merger Sub to enter into this Agreement and to cause the Merger to be consummated, certain stockholders of the Company listed on Schedule A-2 hereto, are executing voting agreements in favor of Talos concurrently with the execution and delivery of this Agreement in substantially the form attached hereto as Exhibit B-2 (the "**Company Voting Agreements**" and, together with the Talos Voting Agreements, the "**Voting Agreements**").

I. In order to induce Talos and Merger Sub to cause the Merger to be consummated, each of the Company's executive officers, directors and holders of shares of Company Capital Stock, Company Stock Options and Company Warrants listed on Schedule C will execute lock-up agreements in favor of Talos prior to the Closing relating to sales and certain other dispositions of shares of Talos Common Stock or certain other securities in substantially the form attached hereto as Exhibit F (the "**Lock-up Agreements**").

AGREEMENT

The parties to this Agreement, intending to be legally bound, agree as follows:

Section 1. DESCRIPTION OF TRANSACTION

1.1 Structure of the Merger.

Upon the terms and subject to the conditions set forth in this Agreement, at the Effective Time (as defined in Section 1.3), Merger Sub shall be merged with and into the Company, and the separate existence of Merger Sub shall cease. The Company will continue as the surviving corporation in the Merger (the "**Surviving Corporation**").

1.2 Effects of the Merger.

The Merger shall have the effects set forth in this Agreement and in the applicable provisions of the DGCL. As a result of the Merger, the Company will become a wholly-owned subsidiary of Talos.

1.3 Closing; Effective Time.

Unless this Agreement is earlier terminated pursuant to the provisions of Section 9.1 of this Agreement, and subject to the satisfaction or waiver of the conditions set forth in Section 6, Section 7 and Section 8 of this Agreement, the consummation of the Merger (the "**Closing**") shall take place at the offices of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., One Financial Center, Boston, MA 02111, as promptly as practicable (but in no event later than the second Business Day following the satisfaction or waiver of the last to be satisfied or waived of the conditions set forth in Section 6, Section 7 and Section 8, other than those conditions that by their nature are to be satisfied at the Closing, but subject to the satisfaction or waiver of each of such conditions), or at such other time, date and place as Talos and the Company may mutually agree in writing, provided that if all the conditions set forth in Section 6, Section 7 and Section 8 shall not have been satisfied or waived on such second Business Day, then the Closing shall take place on the first subsequent Business Day on which all such conditions shall have been satisfied or waived. The date on which the Closing actually takes place is referred to as the "**Closing Date**." At the Closing, the Parties hereto shall cause the Merger to be consummated by executing and filing with the Secretary of State of the State of Delaware a Certificate of Merger with respect to the Merger, satisfying the applicable requirements of the DGCL and in a form reasonably acceptable to Talos and the Company. The Merger shall become effective at the time of the filing of such Certificate of Merger with the Secretary of State of the State of Delaware (the "**Certificate of Merger**"), or at such later time as may be specified in such Certificate of Merger with the consent of Talos and the Company (the time as of which the Merger becomes effective being referred to as the "**Effective Time**").

1.4 Certificate of Incorporation and Bylaws; Directors and Officers.

At the Effective Time:

(a) the certificate of incorporation of the Company shall be amended and restated in its entirety to read as set forth on Exhibit D, and as so amended and restated, shall be the certificate of incorporation of the Surviving Corporation, until thereafter changed or amended as provided therein or by applicable law;

(b) Talos shall file an amendment to its certificate of incorporation to change the name of Talos to "Catalyst Biosciences, Inc.";

(c) the bylaws of the Company shall be amended and restated in its entirety to read identically to the bylaws of Merger Sub as in effect immediately prior to the Effective Time, and as so amended and restated, shall be the bylaws of the Surviving Corporation until thereafter amended as provided by the DGCL and such bylaws;

(d) the directors and officers of Talos shall be as set forth in Section 5.11; and

(e) the directors and officers of the Surviving Corporation, each to hold office in accordance with the certificate of incorporation and bylaws of the Surviving Corporation, shall be the directors and officers of the Company as set forth in Section 5.11.

1.5 Conversion of Shares.

(a) Company Common Stock. At the Effective Time, by virtue of the Merger and without any further action on the part of Talos, Merger Sub, the Company or any stockholder of the Company:

(i) All shares of Company Common Stock or Company Preferred Stock that are held by the Company as treasury stock or that are owned by the Company or Merger Sub immediately prior to the Effective Time shall cease to be outstanding and shall be cancelled and retired and shall cease to exist, and no consideration shall be delivered in exchange therefor; and

(ii) Subject to Section 1.5(b), each share of Company Common Stock issued and outstanding immediately prior to the Effective Time (excluding shares to be canceled pursuant to Section 1.5(a)(i) and excluding Dissenting Shares) shall be converted solely into the right to receive a number of shares of Talos Common Stock equal to the Exchange Ratio (all of such shares of Talos Common Stock to be issued in the Merger, the "**Merger Consideration**").

(b) No Fractional Shares of Talos Common Stock. No fractional shares of Talos Common Stock shall be issued in connection with the Merger as a result of the conversion provided for in Section 1.5(a)(ii), and no certificates or scrip for any such fractional shares shall be issued. Any holder of Company Common Stock who would otherwise be entitled to receive a fraction of a share of Talos Common Stock (after aggregating all fractional shares of Talos Common Stock issuable to such holder) shall, in lieu of such fraction of a share and upon surrender of such holder's Company Stock Certificate(s) (as defined in Section 1.6), be entitled to receive, from the Exchange Agent (as defined in Section 1.7(a)) in accordance with the provisions of this Section 1.5, a cash payment in lieu of such fractional shares representing such holder's proportionate interest, if any, in the proceeds from the sale by the Exchange Agent (reduced by any fees of the exchange agent attributable to such sale) in one or more transactions of shares of Talos Common Stock equal to the excess of (i) the aggregate number of shares of Talos Common Stock to be delivered to the Exchange Agent by Talos pursuant to Section 1.7(a) over (ii) the aggregate number of whole shares of Talos Common Stock to be distributed to holders of Company Stock Certificates pursuant to Section 1.7(b) (such excess being, the "**Excess Shares**"). As soon as practicable after the Effective Time, the Exchange Agent, as agent for the holders of the certificates representing shares of Talos Common Stock that would otherwise receive fractional shares, shall sell the Excess Shares at then prevailing prices on the NASDAQ Global Select Market (or such other NASDAQ market on which the Talos Common Stock is then listed).

(c) Company Stock Options. All Company Stock Options outstanding immediately prior to the Effective Time under the Company Stock Option Plans and all Company Stand-Alone Stock Options outstanding immediately prior to the Effective Time shall be exchanged for options to purchase Talos Common Stock in accordance with Section 5.4.

(d) Company Warrants. All Company Warrants outstanding immediately prior to the Effective Time shall be exchanged for warrants to purchase Talos Common Stock in accordance with Section 5.4.

(e) Common Stock of Merger Sub. Each share of Common Stock, $0.0001 par value per share, of Merger Sub issued and outstanding immediately prior to the Effective Time shall be converted into and exchanged for one validly issued, fully paid and nonassessable share of Common Stock, $0.0001 par value per share, of the Surviving Corporation. Each stock certificate of Merger Sub evidencing ownership of any such shares shall, as of the Effective Time, evidence ownership of such shares of Common Stock of the Surviving Corporation.

(f) Certain Adjustments. If, between the date of this Agreement and the Effective Time, the outstanding shares of Company Capital Stock or Talos Common Stock shall have been changed into, or exchanged for, a different number of shares or a different class, by reason of any stock dividend, subdivision, reclassification, recapitalization, split, combination or exchange of shares, the Exchange Ratio shall be correspondingly adjusted to provide the holders of Company Common Stock the same economic effect as contemplated by this Agreement prior to such event. For the avoidance of doubt, no adjustment to the Exchange Ratio shall be made as a result of the payment of the Pre-Closing Dividend or the conversion of shares of Company Preferred Stock into shares of Company Common Stock.

1.6 Closing of the Company's Transfer Books.

At the Effective Time, the stock transfer books of the Company shall be closed with respect to all shares of Company Capital Stock outstanding immediately prior to the Effective Time. No further transfer of any such shares of Company Capital Stock shall be made on such stock transfer books after the Effective Time. If, after the Effective Time, a valid certificate previously representing any shares of Company Capital Stock outstanding immediately prior to the Effective Time (a "**Company Stock Certificate**") is presented to the Exchange Agent (as defined in Section 1.7(a)) or to the Surviving Corporation, such Company Stock Certificate shall be canceled and shall be exchanged as provided in Sections 1.5 and 1.7. From and after the Effective Time, the holders of Company Stock Certificates outstanding immediately prior to the Effective Time will cease to have any rights with respect to the Company Common Stock and/or Company Preferred Stock, as applicable, represented by such Company Stock Certificates except as otherwise provided for herein or by applicable Law.

1.7 Surrender of Certificates.

(a) On or prior to the Closing Date, American Stock Transfer & Trust Company, LLC or another reputable bank, transfer agent or trust company selected by Talos (such selection subject to the Company's prior written consent, not to be unreasonably withheld, conditioned or delayed) shall be appointed to act as exchange agent in the Merger (the "**Exchange Agent**"). At or promptly following the Effective Time, Talos shall deposit with the Exchange Agent certificates representing the shares of Talos Common Stock issuable pursuant to Section 1.5 in exchange for the outstanding shares of Company Common Stock. The shares of Talos Common Stock and any dividends or distributions received by the Exchange Agent with respect to such shares, are referred to collectively as the "**Exchange Fund**."

(b) Promptly after the Effective Time, the Parties shall cause the Exchange Agent to mail to the Persons who were record holders of Company Stock Certificates immediately prior to the Effective Time: (i) a letter of transmittal in substantially the form attached hereto as Exhibit G (the "**Letters of Transmittal**"),

containing such provisions as Talos may reasonably specify (including (A) a provision confirming that delivery of Company Stock Certificates shall be effected, and risk of loss and title to Company Stock Certificates shall pass, only upon delivery of such Company Stock Certificates to the Exchange Agent and (B) a general release of all claims against the Company and Talos); and (ii) instructions for use in effecting the surrender of Company Stock Certificates in exchange for certificates representing Talos Common Stock. Upon surrender of a Company Stock Certificate to the Exchange Agent for exchange, together with a duly executed Letter of Transmittal and such other documents as may be reasonably required by the Exchange Agent or Talos: (A) the holder of such Company Stock Certificate shall be entitled to receive in exchange therefor a certificate representing the number of whole shares of Talos Common Stock that such holder has the right to receive (and cash in lieu of any fractional share of Talos Common Stock) pursuant to the provisions of Section 1.5; and (B) the Company Stock Certificate so surrendered shall be canceled. Until surrendered as contemplated by this Section 1.7(b), each Company Stock Certificate shall be deemed, from and after the Effective Time, to represent only the right to receive shares of Talos Common Stock (and cash in lieu of any fractional share of Talos Common Stock). If any Company Stock Certificate shall have been lost, stolen or destroyed, Talos may, in its discretion and as a condition precedent to the delivery of any shares of Talos Common Stock, require the owner of such lost, stolen or destroyed Company Stock Certificate to provide an applicable affidavit with respect to such Company Stock Certificate and post a bond indemnifying Talos against any claim suffered by Talos related to the lost, stolen or destroyed Company Stock Certificate or any Talos Common Stock issued in exchange therefor as Talos may reasonably request. If any certificates evidencing shares of Talos Common Stock are to be issued in a name other than that in which the surrendered Company Stock Certificate is registered, it shall be a condition of the issuance thereof that the Company Stock Certificate so surrendered shall be properly endorsed or accompanied by an executed form of assignment separate from the Company Stock Certificate and otherwise in proper form for transfer, and that the Person requesting such exchange pay to the Exchange Agent any transfer or other tax required by reason of the issuance of a new certificate for shares of Talos Common Stock in any name other than that of the registered holder of the Company Stock Certificate surrendered or otherwise establish to the satisfaction of the Exchange Agent that such tax has been paid or is not payable.

(c) No dividends or other distributions declared or made with respect to Talos Common Stock with a record date after the Effective Time shall be paid to the holder of any unsurrendered Company Stock Certificate with respect to the shares of Talos Common Stock that such holder has the right to receive in the Merger until such holder surrenders such Company Stock Certificate (or complies with the lost stock provisions) in accordance with this Section 1.7 (at which time such holder shall be entitled, subject to the effect of applicable abandoned property, escheat or similar Laws, to receive all such dividends and distributions, without interest).

(d) Any portion of the Exchange Fund that remains undistributed to holders of Company Stock Certificates as of the date 180 days after the Closing Date shall be delivered to Talos upon demand, and any holders of Company Stock Certificates who have not theretofore surrendered their Company Stock Certificates in accordance with this Section 1.7 shall thereafter look only to Talos (subject to any applicable escheat Law, abandoned property Law or similar Law) for satisfaction of their claims for Talos Common Stock, cash in lieu of fractional shares of Talos Common Stock and any dividends or distributions with respect to shares of Talos Common Stock.

(e) Each of Talos, Merger Sub, the Company, the Surviving Corporation and the Exchange Agent shall be entitled to deduct and withhold, from any consideration payable or otherwise deliverable under this Agreement to any holder of record of any Company Capital Stock immediately prior to the Effective Time or any other Person who is entitled to receive Merger Consideration pursuant to this Agreement, such amounts as are required to be withheld or deducted under the Code or any other state, local or foreign Tax Law with respect to the making of such payment and shall be entitled to request any reasonably appropriate Tax forms, including Form W-9 (or the appropriate Form W-8, as applicable) from any recipient of Merger Consideration hereunder. To the extent that amounts are so withheld or deducted, such withheld or deducted amounts shall be treated for all purposes of this Agreement as having been paid to the Person(s) to whom such amounts would otherwise have been paid.

(f) No party to this Agreement shall be liable to any holder of any Company Stock Certificate or to any other Person with respect to any shares of Talos Common Stock (or dividends or distributions with respect thereto) or for any cash amounts, delivered to any public official pursuant to any applicable abandoned property Law, escheat Law or similar Law.

1.8 Appraisal Rights.

(a) Notwithstanding any provision of this Agreement to the contrary, shares of Company Capital Stock that are outstanding immediately prior to the Effective Time and which are held by stockholders who have exercised and perfected appraisal rights or dissenters' rights for such shares of Company Capital Stock in accordance with the DGCL (collectively, the "**Company Dissenting Shares**") shall not be converted into or represent the right to receive the per share amount of the Merger Consideration described in Section 1.5 attributable to such Company Dissenting Shares. Such stockholders shall be entitled to receive payment of the appraised value of such shares of Company Capital Stock held by them in accordance with the DGCL, unless and until such stockholders fail to perfect or effectively withdraw or otherwise lose their appraisal rights under the DGCL. All Company Dissenting Shares held by stockholders who shall have failed to perfect or who effectively shall have withdrawn or lost their right to appraisal of such shares of Company Capital Stock under the DGCL shall thereupon be deemed to be converted into and to have become exchangeable for, as of the Effective Time, the right to receive the per share amount of the Merger Consideration attributable to such Company Dissenting Shares upon their surrender in the manner provided in Section 1.5.

(b) The Company shall give Talos prompt written notice of any demands by dissenting stockholders received by the Company, withdrawals of such demands and any other instruments served on the Company and any material correspondence received by the Company in connection with such demands, and Talos shall have the right to participate in all negotiations and proceedings with respect to such demands. Except with the prior written consent of Talos, or to the extent required by applicable law, the Company shall not make any payment with respect to, or offer to settle or settle, any such demands.

1.9 Further Action.

At and after the Effective Time, the officers and directors of the Surviving Corporation shall be authorized to execute and deliver, in the name and on behalf of the Surviving Corporation, Merger Sub or the Company, any deeds, bills of sale, assignments or assurances and to take and do, in the name and on behalf of the Surviving Corporation, Merger Sub or the Company, any other actions and things necessary to vest, perfect or confirm of record or otherwise in the Surviving Corporation any and all right, title and interest in, to and under any of the rights, properties or assets acquired or to be acquired by the Surviving Corporation as a result of, or in connection with, the Merger.

Section 2. REPRESENTATIONS AND WARRANTIES OF THE COMPANY

The Company represents and warrants to Talos and Merger Sub as follows, except as set forth in the written disclosure schedule delivered by the Company to Talos (the "**Company Disclosure Schedule**"). The Company Disclosure Schedule shall be arranged in parts and subparts corresponding to the numbered and lettered Sections and subsections contained in this Section 2. The disclosures in any part or subpart of the Company Disclosure Schedule shall qualify other Sections and subsections in this Section 2 only to the extent it is reasonably apparent from the face of the disclosure that such disclosure is applicable to such other Sections and subsections.

2.1 Organization.

(a) The Company is a corporation, duly organized, validly existing and in good corporate standing under the Laws of the State of Delaware. The Company has all requisite corporate power and authority to own, lease and operate all of its properties and assets and to carry on its business as it is now being conducted. The

Company is duly licensed or qualified to do business and is in corporate good standing in each jurisdiction in which the nature of the business conducted by it or the character or location of the properties and assets owned, leased, or operated by it makes such licensing or qualification necessary, except where the failure to be so licensed or qualified and in corporate good standing would not, either individually or in the aggregate, reasonably be expected to have a Company Material Adverse Effect. The certificate of incorporation of the Company (the "**Company Charter**") and the bylaws of the Company (the "**Company Bylaws**"), copies of which have previously been made available to Talos, are true, correct and complete copies of such documents as currently in effect and the Company is not in violation of any provision thereof. Other than the Company Charter and the Company Bylaws, the Company is not a party to or bound by or subject to any stockholder agreement or other agreement governing the affairs of the Company or the relationships, rights and duties of stockholders and is not subject to a stockholder rights plan or similar plan.

(b) Each of the Company's Subsidiaries is a corporation or legal entity, validly existing and, if applicable, in good standing under the Laws of the jurisdiction of its organization. Each of the Company's Subsidiaries has all requisite corporate power or other power and authority to own, lease and operate all of its properties and assets and to carry on its business as it is now being conducted. Each of the Company's Subsidiaries is duly licensed or qualified to do business and is in good standing in each jurisdiction in which the nature of the business conducted by it or the character or location of the properties and assets owned, leased, or operated by it makes such licensing or qualification necessary, except where the failure to be so licensed or qualified and in good standing would not, either individually or in the aggregate, reasonably be expected to have a Company Material Adverse Effect. The certificate of incorporation and bylaws or equivalent organizational documents of each of the Company's Subsidiaries, copies of which have previously been made available to Talos, are true, correct and complete copies of such documents as currently in effect and such Subsidiaries of the Company are not in violation of any provision thereof.

2.2 Capitalization.

(a) As of the date hereof, the authorized capital stock of the Company consists of 160,000,000 shares of Company Common Stock, $0.001 par value per share, and 92,388,789 shares of Company Preferred Stock, $0.001 par value per share, of which (i) 7,327,166 shares are Series AA Preferred Stock, (ii) 23,104,618 shares are Series BB Preferred Stock, (iii) 5,978,477 shares are Series BB-1 Preferred Stock, (iv) 46,429,980 shares are Series CC Preferred Stock, (v) 629,630 shares are Series D Preferred Stock, (vi) 4,918,918 shares are Series E Preferred Stock and (vii) 4,000,000 shares are Series F Preferred Stock. As of the date hereof, there are 9,826,757 shares of Company Common Stock issued and outstanding and 90,028,661 shares of Company Preferred Stock issued and outstanding, of which (i) 7,327,166 shares are Series AA Preferred Stock, (ii) 23,104,618 shares are Series BB Preferred Stock, (iii) 5,978,477 shares are Series BB-1 Preferred Stock, (iv) 46,429,980 shares are Series CC Preferred Stock, (v) 629,630 shares are Series D Preferred Stock, (vi) 3,935,140 shares are Series E Preferred Stock and (vii) 2,623,650 shares are Series F Preferred Stock. As of the date hereof, there are no shares of Company Common Stock and no shares of Company Preferred Stock held in the treasury of the Company. The Company has no shares of Company Common Stock or Company Preferred Stock reserved for issuance other than as described in this Section 2.2. The outstanding shares of Company Common Stock and Company Preferred Stock have been duly authorized and are validly issued, fully paid and nonassessable, and were not issued in violation of the material terms of any agreement or understanding binding upon the Company at the time at which they were issued and were issued in compliance with the Company Charter and Company Bylaws and all applicable Laws. Except for the Company Stock Options and the Company Warrants, the Company does not have and is not bound by any outstanding subscriptions, options, warrants, calls, commitments, rights agreements, or agreements of any character calling for the Company to issue, deliver, or sell, or cause to be issued, delivered, or sold any shares of Company Common Stock or any other equity security of the Company or any Subsidiary of the Company or any securities convertible into, exchangeable for, or representing the right to subscribe for, purchase, or otherwise receive any shares of Company Common Stock or any other equity security of the Company or any Subsidiary of the Company or obligating the Company or any such Subsidiary to grant, extend, or enter into any such subscriptions, options, warrants, calls, commitments,

rights agreements, or any other similar agreements. There are no registration rights, repurchase or redemption rights, anti-dilutive rights, voting agreements, voting trusts, preemptive rights or restrictions on transfer relating to any capital stock of the Company.

(b) There are no Company Restricted Stock Awards outstanding.

(c) As of the date hereof, there are 6,635,458 shares of Company Common Stock issuable upon exercise of all outstanding Company Stock Options, subject to adjustment on the terms set forth in the Company Stock Option Plans or in the Company Stand-Alone Options. Section 2.2(c) of the Company Disclosure Schedule sets forth a true, correct and complete list, as of the date hereof, of (i) the name of the holder of each Company Stock Option, (ii) the date each Company Stock Option was granted, (iii) the number, issuer and type of securities subject to each such Company Stock Option, (iv) the expiration date of each such Company Stock Option, (v) the vesting schedule of each such Company Stock Option, (vi) the price at which each such Company Stock Option (or each component thereof, if applicable) may be exercised, (vii) the number of shares of Company Common Stock issuable upon the exercise of such, or upon the conversion of all securities issuable upon the exercise of such, Company Stock Options and (viii) whether and to what extent the exercisability of each Company Stock Option will be accelerated upon consummation of the Contemplated Transactions or any termination of employment thereafter.

(d) As of the date hereof, there are 1,017,528 shares of Company Common Stock or Company Preferred Stock issuable upon exercise of all outstanding Company Warrants. Section 2.2(d) of the Company Disclosure Schedule sets forth a true, correct and complete list, as of the date hereof, of (i) the name of the holder of each Company Warrant, (ii) the date each Company Warrant was issued, (iii) the number, issuer and type of securities subject to each such Company Warrant, (iv) the price at which each such Company Warrant (or each component thereof, if applicable) may be exercised, (v) the number of shares of Company Common Stock issuable upon the exercise of such, or upon the conversion of all securities issuable upon the exercise of such, Company Warrant and (vi) whether any consent of the holders of Company Warrants shall be required to exercise or cancel such Company Warrants prior to the Effective Time.

(e) Section 2.2(e) of the Company Disclosure Schedule lists each Subsidiary of the Company as of the date hereof and indicates for each such Subsidiary as of such date (i) the percentage and type of equity securities owned or controlled, directly or indirectly, by the Company and (ii) the jurisdiction of incorporation or organization. No Subsidiary of the Company has or is bound by any outstanding subscriptions, options, warrants, calls, commitments, rights agreements, or agreements of any character calling for it to issue, deliver, or sell, or cause to be issued, delivered, or sold any of its equity securities or any securities convertible into, exchangeable for, or representing the right to subscribe for, purchase or otherwise receive any such equity security or obligating such Subsidiary to grant, extend or enter into any such subscriptions, options, warrants, calls, commitments, rights agreements, or other similar agreements. There are no outstanding contractual obligations of any Subsidiary of the Company to repurchase, redeem, or otherwise acquire any of its capital stock or other equity interests. All of the shares of capital stock of each of the Company's Subsidiaries (A) have been duly authorized and are validly issued, fully paid (to the extent required under the applicable governing documents) and nonassessable, (B) are owned by the Company free and clear of any claim, lien, Encumbrance (other than Permitted Encumbrances), or agreement with respect thereto, (C) were not issued in violation of the material terms of any agreement or understanding binding upon the Company or any of its Subsidiaries at the time at which they were issued and (D) were issued in compliance with the applicable governing documents and all applicable Laws.

2.3 Authority.

The Company has all requisite corporate power and authority to execute and deliver this Agreement and to consummate the Merger and perform its respective obligations hereunder, subject only to obtaining the Company Stockholder Approval. The adoption, execution, delivery and performance of this Agreement and the approval of

the consummation of the Merger have been recommended by, and have been duly and validly adopted and approved by a unanimous vote of, the Board of Directors of the Company. No other approval or consent of, or action by, the holders of the outstanding securities of the Company, other than the Company Stockholder Approval, is required in order for the Company to execute and deliver this Agreement and to consummate the Merger and perform its obligations hereunder. The Board of Directors of the Company has declared this Agreement advisable, has directed that this Agreement be submitted to the Company Stockholders for adoption and approval and has recommended that the Company Stockholders adopt and approve this Agreement. Except for the Company Stockholder Approval and the filing of the Certificate of Merger with the Secretary of State of the State of Delaware, no other corporate proceeding on the part of the Company or any of its Subsidiaries is necessary to authorize the adoption, execution, delivery and performance of this Agreement or to consummate the Merger. This Agreement has been duly and validly executed and delivered by the Company and (assuming due authorization, execution and delivery by the other parties hereto), constitutes the legal, valid and binding obligations of the Company, enforceable against the Company in accordance with its terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium, or other similar Laws relating to creditors' rights and general principles of equity. All other documents required to be executed by the Company on or prior to the date hereof and containing obligations of the Company in connection with the transactions contemplated herein have been duly and validly executed and delivered by the Company and (assuming due authorization, execution and delivery by the other parties thereto) constitute the legal, valid and binding obligations of the Company, enforceable against the Company in accordance with their respective terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium, or other similar Laws relating to creditors' rights and general principles of equity.

2.4 Non-Contravention; Consents.

(a) The execution and delivery of this Agreement by the Company does not, and the consummation by the Company of the Merger and the Contemplated Transactions will not, (i) conflict with, or result in any violation or breach of, any provision of the Company Charter, the Company Bylaws or of the charter, bylaws, or other organizational document of any Subsidiary of the Company, (ii) conflict with, or result in any violation or breach of, or constitute (with or without notice or lapse of time, or both) a default (or give rise to a right of termination, cancellation or acceleration of any obligation or loss of any material benefit) under, require a consent or waiver under, constitute a change in control under, require the payment of a penalty under or result in the imposition of any Encumbrance on the Company's or any of its Subsidiaries' assets under, any of the terms, conditions or provisions of any Company Material Contract or other agreement, instrument or obligation to which the Company or any of its Subsidiaries is a party or by which any of them or any of their properties or assets may be bound, or (iii) subject to obtaining the Company Stockholder Approval and subject to the consents, approvals and authorizations specified in clauses (i) through (v) of Section 2.4(b) having been obtained prior to the Effective Time and all filings and notifications described in Section 2.4(b) having been made, conflict with or violate any Law applicable to the Company or any of its Subsidiaries or any of its or their properties or assets, except in the case of clause (iii) of this Section 2.4(a) for any such conflicts or violations, that have not had, and would not reasonably be expected to result in, a Company Material Adverse Effect.

(b) No consent, approval, license, permit, order or authorization of, or registration, declaration, notice or filing with, any Governmental Authority is required by or with respect to the Company or any of its Subsidiaries in connection with the execution and delivery of this Agreement by the Company or the consummation by the Company of the Contemplated Transactions, except for (i) obtaining the Company Stockholder Approval, (ii) the filing of the Certificate of Merger with the Delaware Secretary of State and appropriate corresponding documents with the appropriate authorities of other states in which the Company is qualified as a foreign corporation to transact business, (iii) any filings required to be made with the SEC in connection with this Agreement and the Contemplated Transactions, (iv) such consents, approvals, orders, authorizations, registrations, declarations, notices and filings as may be required under applicable state securities Laws and (v) such other consents, licenses, permits, orders, authorizations, filings, approvals and registrations which, if not obtained or made, have not had, and would not reasonably be expected to result in, a Company Material Adverse Effect.

2.5 Financial Statements.

(a) Section 2.5(a) of the Company Disclosure Schedule includes true and complete copies of the Company's audited consolidated balance sheet as of December 31, 2013 and December 31, 2012, and the related consolidated audited statements of operations, cash flows and stockholders equity for the twelve months ended December 31, 2013 and December 31, 2012, together with the notes thereto and the reports and opinions of EisnerAmper LLP relating thereto, and the unaudited balance sheet of the Company as of December 31, 2014 and the related unaudited statements of operations, cash flow and stockholders' equity for the twelve (12) month period then ended (collectively, the "**Company Financial Statements**"). The Company Financial Statements (i) were prepared in accordance with GAAP applied on a consistent basis (unless otherwise noted therein) throughout the periods indicated and (ii) fairly present, in all material respects, the financial condition and operating results of the Company and its Subsidiaries as of the dates and for the periods indicated therein (except, in the case of clauses (i) and (ii), that the unaudited financial statements do not contain footnotes and are subject to normal and recurring year-end adjustments, which will not, individually or in the aggregate, be material). The balance sheet of the Company as of December 31, 2013 is hereinafter referred to as the "**Company Balance Sheet**."

(b) The Company and its Subsidiaries, collectively, maintain adequate disclosure controls and procedures designed to ensure that material information relating to the Company or its Subsidiaries is made known to the Chief Executive Officer or President and the Chief Financial Officer of the Company by others within those entities.

(c) None of the Company, its Subsidiaries or, to the Knowledge of the Company, any director, officer, employee, or internal or external auditor of the Company and its Subsidiaries has received or otherwise had or obtained actual Knowledge of any substantive material complaint, allegation, assertion or claim, whether written or oral, that any of the Company or its Subsidiaries has engaged in questionable accounting or auditing practices.

(d) During the periods covered by the Company Financial Statements, there have been no: (i) changes in the internal control over financial reporting of the Company and its Subsidiaries that have materially affected, or are reasonably likely to materially affect, the Company's and its Subsidiaries internal control over financial reporting; (ii) significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting reported to the Board of Directors of the Company and the external auditors of the Company and its Subsidiaries; or (iii) instances of fraud, whether or not material, involving the management of the Company or its Subsidiaries or other employees of the Company or its Subsidiaries who have a significant role in the internal control over financial reporting of the Company or its Subsidiaries.

2.6 Absence of Changes.

Since the date of the Company Balance Sheet, the Company and its Subsidiaries have conducted their respective businesses in all material respects in the Ordinary Course of Business consistent with their past practices. Except as set forth on Section 2.6 of the Company Disclosure Schedule, after the date of the Company Balance Sheet and on or before the date hereof:

(a) there has not been any change, event, circumstance or condition to the Knowledge of the Company that, individually or in the aggregate, has had, or would reasonably be expected to have, a Company Material Adverse Effect;

(b) there has been no split, combination or reclassification of any of the outstanding shares of the capital stock of the Company, and the Company has not declared or paid any dividends on or made any other distributions (in either case, in stock or property) on or in respect of the outstanding shares of the capital stock of the Company;

(c) none of the Company or its Subsidiaries has allotted, reserved, set aside or issued, authorized or proposed the allotment, reservation, setting aside or issuance of, or purchased or redeemed or proposed the purchase or redemption of, any shares in its capital stock or any class of securities convertible or exchangeable into, or rights, warrants or options to acquire, any such shares or other convertible or exchangeable securities;

(d) except as required as a result of a change in applicable Laws or GAAP, there has not been any material change in any method of accounting or accounting practice by the Company or its Subsidiaries;

(e) none of the Company or its Subsidiaries has (i) acquired or sold, pledged, leased, encumbered or otherwise disposed of any material property or assets or agreed to do any of the foregoing or (ii) incurred or committed to incur capital expenditures in excess of $100,000, in the aggregate;

(f) there has been no transfer (by way of a license or otherwise) of, or agreement to transfer to, any Person's rights to any of the Company Intellectual Property;

(g) there has been no notice delivered to the Company or any of its Subsidiaries of any claim of ownership by a third party of any of the Company Intellectual Property owned or developed by the Company or its Subsidiaries, or of infringement by any of the Company or its Subsidiaries of any Third Party Intellectual Property;

(h) there has not been any: (i) grant of any severance or termination pay to any employee of the Company or its Subsidiaries; (ii) entry into any employment, deferred compensation, severance or other similar plan or agreement (or any amendment to any such existing agreement) with any new or current employee of the Company or its Subsidiaries; (iii) change in the compensation, bonus or other benefits payable or to become payable to its directors, officers, employees or consultants, except as required by any pre-existing plan or arrangement set forth in Section 2.6 of the Company Disclosure Schedule; or (iv) termination of any of the officers or key employees of any of the Company or any of its Subsidiaries; and

(i) there has not been any agreement to do any of the foregoing.

2.7 Title to Assets.

Each of the Company and its Subsidiaries owns, and has good and valid title to, or, in the case of leased properties and assets, valid leasehold interests in, or other valid right to use, all tangible properties or assets and equipment used or held for use in its business or operations or purported to be owned by it. All of said assets are owned by the Company or a Subsidiary of the Company free and clear of any Encumbrances, except for: (i) any lien for current Taxes not yet due and payable or for Taxes that are being contested in good faith and for which adequate reserves have been made on the Company Balance Sheet; (ii) minor liens that have arisen in the Ordinary Course of Business and that do not (in any case or in the aggregate) materially detract from the value of the assets subject thereto or materially impair the operations of the Company and its Subsidiaries, taken as a whole; and (iii) Encumbrances described in Section 2.7 of the Company Disclosure Schedule.

2.8 Properties.

(a) Section 2.8(a) of the Company Disclosure Schedule identifies (x) the street address of each parcel of Company Leased Real Property, (y) the identification of the Company Leases and the Company Ancillary Lease Documents and (z) the identity of the lessor, lessee and current occupant (if different than the lessee) of each such parcel of Company Leased Real Property. With respect to each Company Lease, except as would not, individually or in the aggregate, have a Company Material Adverse Effect:

(i) the Company Leases and the Company Ancillary Lease Documents are valid, binding and, subject to applicable bankruptcy, insolvency, reorganization, moratorium or other similar Laws relating to creditors' rights and general principles of equity, enforceable and in full force and effect and have not been modified or amended, and the Company or a Subsidiary of the Company, as applicable, holds a valid and existing

leasehold interest under such Company Leases free and clear of any Encumbrances except Permitted Encumbrances. The Company and its Subsidiaries have delivered or made available to Talos full, complete and accurate copies of each of the Company Leases and all Company Ancillary Lease Documents described in Section 2.8(a)(i) of the Company Disclosure Schedule;

(ii) none of the Company Leased Real Property is subject to any Encumbrance other than a Permitted Encumbrance;

(iii) the Company Leases and all Company Ancillary Lease Documents shall continue to be legal, valid, binding, enforceable and in full force and effect on identical terms following the Closing;

(iv) with respect to each of the Company Leases, none of the Company or its Subsidiaries has exercised or given any notice of exercise, nor has any lessor or landlord exercised or received any notice of exercise, of any option, right of first offer or right of first refusal contained in any such Company Lease or Company Ancillary Lease Document, including any such option or right pertaining to purchase, expansion, renewal, extension or relocation;

(v) none of the Company or its Subsidiaries, nor, to the Knowledge of the Company, any other party to any Company Leases or Company Ancillary Lease Documents is in breach or default, and, to the Knowledge of the Company, no event has occurred which, with notice or lapse of time, would constitute such a breach or default or permit termination, modification or acceleration under the Company Leases or any Company Ancillary Lease Documents;

(vi) no party to the Company Leases has repudiated any provision thereof and there are no disputes, oral agreements or forbearance programs in effect as to the Company Leases; and

(vii) none of the Company or its Subsidiaries has assigned, transferred, conveyed, mortgaged, deeded in trust or encumbered any of its rights and interest in the leasehold or subleasehold under any of the Company Leases or any Company Ancillary Lease Documents.

(b) The Company and its Subsidiaries own good title, free and clear of all Encumbrances, to all personal property and other non-real estate assets, in all cases excluding the Company Intellectual Property, necessary to conduct the Company Business, except for Permitted Encumbrances. The Company and its Subsidiaries, as lessees, have the right under valid and subsisting leases to use, possess and control all personal property leased by the Company and its Subsidiaries as now used, possessed and controlled by the Company or its Subsidiaries, as applicable.

(c) The Company Leased Real Property constitutes all of the real property used or occupied by the Company and its Subsidiaries in connection with the conduct of the Company Business.

(d) None of the Company or its Subsidiaries has any Company Owned Real Property, nor is any of the Company or its Subsidiaries a party to or bound by or subject to any agreement, contract or commitment, or any option to purchase, any real or immovable property.

2.9 Intellectual Property.

(a) Section 2.9(a) of the Company Disclosure Schedule contains a complete and accurate list of all (i) Patents owned by the Company or any of its Subsidiaries or used or held for use by the Company or any of its Subsidiaries in the Company Business ("**Company Patents**"), registered and material unregistered Marks owned by the Company or any of its Subsidiaries or used or held for use by the Company or any of its Subsidiaries in the Company Business ("**Company Marks**") and registered and material unregistered Copyrights owned by the Company or any of its Subsidiaries or used or held for use by the Company or any of its Subsidiaries in the Company Business ("**Company Copyrights**"), (ii) licenses, sublicenses or other agreements under which the

Company or any of its Subsidiaries is granted rights by others in the Company Intellectual Property ("**Company Licenses-In**") (other than commercial off the shelf software or materials transfer agreements), and (iii) licenses, sublicenses or other agreements under which the Company or any of its Subsidiaries has granted rights to others in the Company Intellectual Property ("**Company Licenses-Out**").

(b) With respect to the Company Intellectual Property (i) purported to be owned by the Company or any of its Subsidiaries, the Company or one of its Subsidiaries exclusively owns such Company Intellectual Property and (ii) licensed to the Company or any of its Subsidiaries by a third party (other than commercial off the shelf software or materials transfer agreements), such Company Intellectual Property are the subject of a written license or other agreement; in the case of the foregoing clauses (i) and (ii) above, free and clear of all Encumbrances, other than Encumbrances resulting from the express terms of a Company License-In or Company License-Out or Permitted Encumbrances granted by the Company or any of its Subsidiaries.

(c) All Company Intellectual Property owned by, and, to the Knowledge of the Company, all Company Intellectual Property exclusively licensed to the Company or any of its Subsidiaries that have been issued by, or registered with, or are the subject of an application filed with, as applicable, the U.S. Patent and Trademark Office, the U.S. Copyright Office or any similar office or agency anywhere in the world are currently in compliance with formal legal requirements (including without limitation, as applicable, payment of filing, examination and maintenance fees, inventor declarations, proofs of working or use, timely post-registration filing of affidavits of use and renewal applications), and, to the Knowledge of the Company, all Company Patents, Company Marks and Company Copyrights, and all intellectual property rights and/or proprietary rights relating to any of the foregoing, that are owned by or exclusively licensed to the Company or any of its Subsidiaries are valid and enforceable.

(d) To the Knowledge of the Company, each Company Patent that has been issued by, or registered with, or is the subject of an application filed with, as applicable, the U.S. Patent and Trademark Office or any similar office or agency anywhere in the world was issued, registered, or filed, as applicable, with the correct inventorship and there has been no known misjoinder or nonjoinder of inventors.

(e) No Company Patent is now involved in any interference, reissue, re-examination or opposition proceeding; to the Knowledge of the Company, there is no patent or patent application of any third party that potentially interferes with a Company Patent.

(f) There are no pending or, to the Knowledge of the Company, threatened claims against the Company or any of its Subsidiaries or any of its employees alleging that any of the operation of the Company Business or any activity by the Company or any of its Subsidiaries, or the manufacture, sale, offer for sale, importation, and/or use of any Company Product infringes or violates (or in the past infringed or violated) the rights of others in or to any Intellectual Property ("**Third Party Intellectual Property**") or constitutes a misappropriation of (or in the past constituted a misappropriation of) any subject matter of any Intellectual Property of any person or entity or that any Company Intellectual Property is invalid or unenforceable.

(g) To the Knowledge of the Company, neither the operation of the Company Business, nor any activity by the Company or any of its Subsidiaries, nor manufacture, use, importation, offer for sale and/or sale of any Company Product infringes or violates (or in the past infringed or violated) any Third Party Intellectual Property or constitutes a misappropriation of (or in the past constituted a misappropriation of) any subject matter of any Third Party Intellectual Property.

(h) None of the Company or any of its Subsidiaries has any obligation to compensate any person for the use of any Intellectual Property; none of the Company or any of its Subsidiaries has entered into any agreement to indemnify any other person against any claim of infringement or misappropriation of any Intellectual Property; there are no settlements, covenants not to sue, consents, judgments, or orders or similar obligations that: (i) restrict the rights of the Company or any of its Subsidiaries to use any Intellectual Property, (ii) restrict the Company Business, in order to accommodate a third party's Intellectual Property, or (iii) permit third parties to use any Company Intellectual Property.

(i) All former and current employees, consultants and contractors of the Company or any of its Subsidiaries have executed written instruments with the Company or one or more of its Subsidiaries that assign to the Company, all rights, title and interest in and to any and all (i) inventions, improvements, discoveries, writings and other works of authorship, and information relating to the Company Business or any of the products or services being researched, developed, manufactured or sold by the Company or any of its Subsidiaries or that may be used with any such products or services and (ii) Intellectual Property relating thereto; in each case where a Company Patent is held by the Company or any of its Subsidiaries by assignment, the assignment has been duly recorded with the U.S. Patent and Trademark Office and all similar offices and agencies anywhere in the world in which foreign counterparts are registered or issued.

(j) To the Knowledge of the Company, (i) there is no, nor has there been any, infringement or violation by any person or entity of any Company Intellectual Property or the rights of the Company or any of its Subsidiaries therein or thereto and (ii) there is no, nor has there been any, misappropriation by any person or entity of any Company Intellectual Property or the subject matter thereof.

(k) The Company and its Subsidiaries have taken reasonable security measures to protect the secrecy, confidentiality and value of all Trade Secrets owned by the Company or any of its Subsidiaries or used or held for use by the Company or any of its Subsidiaries in the Company Business (the "**Company Trade Secrets**"), including, without limitation, requiring each employee and consultant of the Company and its Subsidiaries and any other person with access to Company Trade Secrets to execute a binding confidentiality agreement, copies or forms of which have been provided to Talos and, to the Knowledge of the Company, there has not been any breach by any party to such confidentiality agreements.

(l) Following the Effective Time, the Surviving Corporation will have the same rights and privileges in the Company Intellectual Property as the Company and its Subsidiaries had in the Company Intellectual Property immediately prior to the Effective Time.

2.10 Material Contracts.

Section 2.10 of the Company Disclosure Schedule is a correct and complete list of each currently effective Company Contract:

(a) the Company Leases and the Company Ancillary Lease Documents;

(b) for the purchase of materials, supplies, goods, services, equipment or other assets for annual payments by the Company or any of its Subsidiaries of, or pursuant to which in the last year the Company or any of its Subsidiaries paid, in the aggregate, $100,000 or more;

(c) for the sale of materials, supplies, goods, services, equipment or other assets for annual payments to Company or any of its Subsidiaries of, or pursuant to which in the last year the Company or any of its Subsidiaries received, in the aggregate, $100,000 or more;

(d) that relates to any partnership, joint venture, strategic alliance or other similar Contract;

(e) relating to Indebtedness for borrowed money or the deferred purchase price of property (whether incurred, assumed, guaranteed or secured by any asset), except for Contracts relating to Indebtedness in an amount not exceeding $100,000 in the aggregate;

(f) severance or change-in-control Contracts;

(g) which by its terms limits in any material respect (i) the localities in which all or any significant portion of the business and operations of the Company or its Subsidiaries or, following the consummation of the Contemplated Transactions, the business and operations of the Surviving Corporation, Talos or any Affiliate of Talos, is or would be conducted, or (ii) the scope of the business and operations of the Company and its Subsidiaries, taken as a whole;

(h) in respect of any Company Intellectual Property that provides for annual payments of, or pursuant to which in the last year the Company or any of its Subsidiaries paid or received, in the aggregate, $100,000 or more;

(i) containing any royalty, dividend or similar arrangement based on the revenues or profits of the Company or any of its Subsidiaries;

(j) with any Governmental Authority;

(k) any Contract with (a) an executive officer or director of the Company or any of its Subsidiaries or any of such executive officer's or director's immediate family members, (b) an owner of more than five percent (5%) of the voting power of the outstanding capital stock of the Company or (c) to the Knowledge of the Company, any "related person" (within the meaning of Item 404 of Regulation S-K under the Securities Act) of any such officer, director or owner (other than the Company or its Subsidiaries);

(l) any agreement that gives rise to any material payment or benefit as a result of the performance of this Agreement or any of the other Contemplated Transactions;

(m) relating to the acquisition or disposition of any material interest in, or any material amount of, property or assets of the Company or any of its Subsidiaries or for the grant to any Person of any preferential rights to purchase any of their assets, other than in the Ordinary Course of Business consistent with past practice; or

(n) any other agreement (or group of related agreements) the performance of which requires aggregate payments to or from the Company or any of its Subsidiaries in excess of $100,000.

The Company has delivered or made available to Talos accurate and complete (except for applicable redactions thereto) copies of all material written Company Contracts, including all amendments thereto. There are no material Company Contracts that are not in written form. Except as set forth on Section 2.10 of the Company Disclosure Schedule, neither the Company nor any Subsidiary of the Company has, nor to the Company's Knowledge, has any other party to a Company Material Contract (as defined below), breached, violated or defaulted under, or received notice that it has breached, violated or defaulted under, any of the terms or conditions of any of the agreements, contracts or commitments to which the Company or its Subsidiaries is a party or by which it is bound of the type described in clauses (a) through (n) above or any Company Contract listed in Section 2.14 or Section 2.15 of the Company Disclosure Schedule (any such agreement, contract or commitment, a "**Company Material Contract**") in such manner as would permit any other party to cancel or terminate any such Company Material Contract, which has had or would reasonably be expected to have a Company Material Adverse Effect. As to the Company and its Subsidiaries, as of the date of this Agreement, each Company Material Contract is valid, binding, enforceable and in full force and effect, subject to: (i) Laws of general application relating to bankruptcy, insolvency and the relief of debtors; and (ii) rules of Law governing specific performance, injunctive relief and other equitable remedies. The consummation of the Contemplated Transactions will not (either alone or upon the occurrence of additional acts or events) result in any material payment or payments becoming due from the Company, any Subsidiary of the Company, or the Surviving Corporation to any Person under any Company Material Contract or give any Person the right to terminate or alter the provisions of any Company Material Contract. No Person is renegotiating any material amount paid or payable to the Company or any of its Subsidiaries under any Company Material Contract or any other material term or provision of any Company Material Contract.

2.11 Absence of Undisclosed Liabilities.

Neither the Company nor any Subsidiary of the Company has any liability, Indebtedness, obligation, expense, claim, deficiency, guaranty or endorsement of any kind, whether accrued, absolute, contingent, matured, unmatured or other (whether or not required to be reflected in the financial statements in accordance with GAAP)

(each a "**Liability**"), individually or in the aggregate, except for: (a) Liabilities identified as such in the "liabilities" column of the Company Balance Sheet; (b) normal and recurring current Liabilities that have been incurred by the Company or its Subsidiaries since the date of the Company Balance Sheet in the Ordinary Course of Business and which are not in excess of $100,000 in the aggregate; (c) Liabilities for performance of obligations of the Company or any Subsidiary of the Company under Contracts (other than for breach thereof); (d) Liabilities described in Section 2.11 of the Company Disclosure Schedule; and (e) Liabilities incurred in connection with the Contemplated Transactions.

2.12 Compliance with Laws; Regulatory Compliance.

(a) Each of the Company and its Subsidiaries is in compliance with all Laws or Orders, except where any such failure to be in compliance has not had, or would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect. No investigation or review by any Governmental Authority with respect to the Company or any of its Subsidiaries is pending or, to the Knowledge of the Company, threatened, nor has any Governmental Authority indicated an intention to conduct the same which, in each case, would reasonably be expected to have a material and adverse impact on the Company or any of its Subsidiaries.

(b) Except as has not had, and would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect, each of the Company and its Subsidiaries and their respective employees and agents hold all permits, licenses, variances, registrations, exemptions, Orders, consents and approvals from the U.S. Food and Drug Administration (the "**FDA**") and any other Governmental Authority that is concerned with the quality, identity, strength, purity, safety, efficacy or manufacturing of Company Products (any such Governmental Authority, a "**Company Regulatory Agency**") necessary for the lawful operating of the businesses of the Company and each of its Subsidiaries as currently conducted (the "**Company Permits**"), including all authorizations required under the Federal Food, Drug and Cosmetic Act of 1938, as amended (the "**FDCA**"), and the regulations of the FDA promulgated thereunder, and the Public Health Service Act of 1944, as amended (the "**PHSA**"). Notwithstanding the foregoing, it is acknowledged that no Company Product is a marketed product or has received marketing approval and, therefore, that further permits, licenses, variances, registrations, exemptions, Orders, consents and/or approvals will be required before any Company Product may be marketed. Except as has not had, and would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect, all such Company Permits are valid, and in full force and effect. Since January 1, 2013, there has not occurred any violation of, default (with or without notice or lapse of time or both) under, or event giving to others any right of termination, amendment or cancellation of, with or without notice or lapse of time or both, any Company Permit except as has not had, and would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect. Each of the Company and each of its Subsidiaries is in compliance in all material respects with the terms of all Company Permits, and no event has occurred that, to the Knowledge of the Company, would reasonably be expected to result in the revocation, cancellation, non-renewal or adverse modification of any Company Permit, except as has not had, and would not reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect.

(c) None of the Company or its Subsidiaries nor, to the Knowledge of the Company, any director, officer, employee, agent or Representative thereof, has committed any act, made any statement or failed to make any statement that would reasonably be expected to provide a basis for the FDA or any other Company Regulatory Agency to invoke its policy with respect to "Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities," as set forth in 56 Fed. Reg. 46191 (Sept. 10, 1991) and any amendments thereto. None of the Company or its Subsidiaries nor, to the Knowledge of the Company, any director, officer, employee, agent or Representative thereof, has engaged in any activity prohibited under U.S. federal or state criminal or civil health care Laws (including without limitation the U.S. federal Anti-Kickback Statute, Stark Law, False Claims Act, Health Insurance Portability and Accountability Act, and any comparable state Laws), or the regulations promulgated pursuant to such Laws (each, a "**Health Care Law**"). There is no civil, criminal, administrative or

other proceeding, notice or demand pending, received or, to the Knowledge of the Company, threatened against the Company or any of its Subsidiaries that relates to an alleged violation of any Health Care Law. None of the Company or any of its Subsidiaries nor, to the Knowledge of the Company, any director, officer, employee, agent or Representative thereof, has been convicted of any crime or engaged in any conduct for which debarment is mandated by 21 U.S.C. sec. 335a(a) or any similar Law or authorized by 21 U.S.C. sec. 335a(b) or any similar Law. There are no consent decrees (including plea agreements) or similar actions to which the Company or any of its Subsidiaries or, to the Knowledge of the Company, any director, officer, employee, agent or Representative thereof, are bound or which relate to Company Products.

(d) Each of the Company and its Subsidiaries is and has been in compliance in all material respects with all applicable statutes, rules, regulations, decrees, writs and orders of the FDA and any other Company Regulatory Agency with respect to the labeling, storing, testing, development, manufacture, packaging and distribution of the Company Products. All required pre-clinical toxicology studies conducted by or on behalf of the Company or its Subsidiaries and Company-sponsored clinical trials (or clinical trials sponsored by the Company or any other Subsidiary) conducted or being conducted with respect thereto, have been and are being conducted in compliance in all material respects with applicable licenses and Laws, including, without limitation, the applicable requirements of the FDA's current Good Manufacturing Practices, Good Laboratory Practices and Good Clinical Practices. The results of any such studies, tests and trials, and all other material information related to such studies, tests and trials, have been made available to Talos. Each clinical trial conducted by or on behalf of the Company or any of its Subsidiaries with respect to Company Products has been conducted in accordance with its clinical trial protocol, and in compliance in all material respects with all applicable Laws, including Good Clinical Practices, Informed Consent and all other applicable requirements contained in 21 CFR Parts 312, 50, 54, 56 and 11. Each of the Company and its Subsidiaries has filed all required notices (and made available to Talos copies thereof) of adverse drug experiences, injuries or deaths relating to clinical trials conducted by or on behalf of the Company or any of its Subsidiaries with respect to such Company Products.

(e) To the Knowledge of the Company, none of its Representatives, licensors, licensees, assignors or assignees has received any notice that the FDA or any other Company Regulatory Agency has initiated, or threatened to initiate, any Action to suspend any clinical trial, suspend or terminate any Investigational New Drug Application relating to, or otherwise restrict the pre-clinical research or clinical study of, any Company Product or any drug product being developed by any licensee or assignee of the Company Intellectual Property based on such intellectual property, or to recall, suspend or otherwise restrict the development or manufacture of any Company Product. None of the Company or any of its Subsidiaries is in receipt of written notice of, or is subject to, any adverse inspection, finding of deficiency, finding of non-compliance, investigation, civil or criminal proceeding, hearing, suit, demand, claim, complaint, inquiry, proceeding, or other compliance or enforcement action relating to any Company Product. To the Knowledge of the Company, there is no act, omission, event or circumstance that would reasonably be expected to give rise to any such action.

(f) The Company and its Subsidiaries have made available to Talos true, correct and complete copies of any and all applications, approvals, licenses, written notices of inspectional observations, establishment inspection reports and any other documents received from the FDA or other Company Regulatory Agency, including documents that indicate or suggest lack of compliance with the regulatory requirements of the FDA or other Company Regulatory Agency. The Company and its Subsidiaries have made available to Talos for review all correspondence to or from the FDA or other Company Regulatory Agency, minutes of meetings, written reports of phone conversations, visits or other contact with the FDA or other Company Regulatory Agency, notices of inspectional observations, establishment inspection reports, and all other documents concerning communications to or from the FDA or other Company Regulatory Agency, or prepared by the FDA or other Company Regulatory Agency or which bear in any way on the Company's or any of its Subsidiaries' compliance with regulatory requirements of the FDA or any other Company Regulatory Agency, or on the likelihood or timing of approval of any Company Products.

2.13 Taxes and Tax Returns.

(a) Each material Tax Return required to be filed by, or on behalf of, the Company or any of its Subsidiaries, and each material Tax Return in which the Company or any of its Subsidiaries was required to be included, has been timely filed. Each such Tax Return was true, correct and complete in all material respects.

(b) Each of the Company and each of its Subsidiaries (i) has paid (or has had paid on its behalf) all material Taxes due and owing, whether or not shown as due on any Tax Return, and (ii) has withheld and remitted to the appropriate Taxing Authority all material Taxes required to be withheld and paid in connection with any amounts paid or owing to or collected from any employee, independent contractor, supplier, creditor, stockholder, partner, member or other third party, and all Forms W-2 and 1099 required with respect thereto have been properly completed and timely filed.

(c) The unpaid Taxes of the Company and its Subsidiaries (A) did not, as of December 31, 2013, exceed the reserve for Tax liability (rather than any reserve for deferred Taxes established to reflect timing differences between book and Tax income) set forth on the face of the Company Balance Sheet (rather than in any notes thereto) and (B) will not exceed that reserve as adjusted for operations and transactions through the Closing Date in accordance with the past custom and practice of the Company and its Subsidiaries in filing their Tax Returns.

(d) Section 2.13(d) of the Company Disclosure Schedule lists all federal, state, local and foreign Tax Returns filed with respect to the Company or any of its Subsidiaries for taxable periods ended on or after December 31, 2008, indicates those Tax Returns that have been audited, and indicates those Tax Returns that currently are the subject of audit. The Company has delivered or made available to Talos correct and complete copies of all federal Income Tax Returns, examination reports, and statements of deficiencies assessed against, or agreed to by the Company or any of its Subsidiaries since December 31, 2008.

(e) There are no liens for Taxes (other than Taxes not yet due and payable or which are being contested in good faith by appropriate proceedings and for which adequate reserves have been established in the applicable financial statements in accordance with GAAP) upon any of the assets of the Company or any of its Subsidiaries.

(f) None of the Company or any of its Subsidiaries is currently the beneficiary of any extension of time within which to file any material Tax Return or with respect to any material Tax assessment or deficiency.

(g) None of the Company or any of its Subsidiaries has waived any statute of limitations with respect to any material Taxes.

(h) There is no material Tax claim, audit, suit, or administrative or judicial Tax proceeding now pending or presently in progress or threatened in writing with respect to a material Tax Return of the Company or any of its Subsidiaries.

(i) None of the Company or any of its Subsidiaries has received notice in writing of any proposed material deficiencies from any Taxing Authority.

(j) None of the Company or any of its Subsidiaries has distributed stock of a corporation, or has had its stock distributed, in a transaction purported or intended to be governed in whole or in part by Sections 355 or 361 of the Code.

(k) None of the Company or any of its Subsidiaries is party to or has any obligation under any Tax sharing agreement (whether written or not) or any Tax indemnity or other Tax allocation agreement or arrangement (other than any such agreement, the primary purpose of which does not relate to Taxes).

(l) None of the Company or any of its Subsidiaries (A) is or has ever been a member of a group of corporations that files or has filed (or has been required to file) consolidated, combined, or unitary Tax Returns, other than a group the common parent of which was the Company or (B) has any liability for the Taxes of any person (other than the Company or any of its Subsidiaries) under Treasury Regulations Section 1.1502-6 (or any similar provision of state, provincial, local or foreign Law), as a transferee or successor, by contract or otherwise.

(m) The taxable year of the Company and its Subsidiaries for all income Tax purposes is the fiscal year ended December 31, and each of the Company or any of its Subsidiaries uses the accrual method of accounting in keeping its books and in computing its taxable income.

(n) None of the Company or any of its Subsidiaries has been a United States real property holding corporation within the meaning of Section 897(c)(2) of the Code at any time during the applicable period specified in Section 897(c)(1)(A)(ii) of the Code.

(o) No Subsidiary of the Company which is a foreign corporation (i) shall have recognized a material amount of "subpart F income" as defined in Section 952 of the Code during a taxable year of such Subsidiary that includes but does not end on the Closing Date, (ii) is a resident of any jurisdiction other than that of its incorporation, or (iii) is engaged in a U.S. trade or business.

(p) None of the Company or any of its Subsidiaries has participated in a listed transaction within the meaning of Treasury Regulations Section 1.6011-4 (or any predecessor provision).

(q) None of the Company or any of its Subsidiaries will be required to include any material item of income in, or exclude any material item of deduction from, taxable income for any taxable period (or portion thereof) ending after the Closing Date as a result of any:

(i) change in method of accounting or use of an improper method of accounting for a taxable period ending on or prior to the Closing Date;

(ii) "closing agreement" as described in Section 7121 of the Code (or any corresponding or similar provision of state, local or foreign income Tax Law) executed on or prior to the Closing Date;

(iii) intercompany transactions or any excess loss account described in Treasury Regulations under Section 1502 of the Code (or any corresponding or similar provision of state, local or foreign income Tax Law);

(iv) installment sale or open transaction disposition made on or prior to the Closing Date;

(v) prepaid amount received on or prior to the Closing Date;

(vi) election with respect to income from the discharge of Indebtedness under Section 108(i) of the Code; or

(vii) any similar election, action, or agreement that would have the effect of deferring any Liability for Taxes of the Company or any of its Subsidiaries from any period ending on or before the Closing Date to any period ending after such period.

(r) No written claim has been made by any Taxing Authority that the Company or any of its Subsidiaries is or may be subject to Tax or required to file a Tax Return in a jurisdiction where it does not file Tax Returns, which could reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect.

(s) Neither the Company nor any of its Subsidiaries has taken any action or knows of any fact or circumstance that could reasonably be expected to prevent the Merger from qualifying as a reorganization within the meaning of Section 368(a) of the Code.

2.14 Employee Benefit Programs.

(a) Section 2.14(a) of the Company Disclosure Schedule sets forth a list of every Employee Program maintained by Company or an ERISA Affiliate of Company (the "**Company Employee Programs**").

(b) Each Company Employee Program that is intended to qualify under Section 401(a) of the Code has received a favorable determination or approval letter from the IRS with respect to such qualification, or may rely on an opinion letter issued by the IRS with respect to a prototype plan adopted in accordance with the requirements for such reliance, or has time remaining for application to the IRS for a determination of the qualified status of such Company Employee Program for any period for which such Company Employee Program would not otherwise be covered by an IRS determination. To the Knowledge of the Company, no event or omission has occurred that would reasonably be expected to cause any Company Employee Program to lose its qualification or otherwise fail to satisfy the relevant requirements to provide tax-favored benefits under the applicable Code Section (including without limitation Code Sections 105, 125, 401(a) and 501(c)(9)).

(c) Neither the Company nor any Subsidiary of the Company knows, nor should any of them reasonably know, of any material failure of any party to comply with any Laws applicable with respect to the Employee Programs maintained by the Company or any ERISA Affiliate of the Company. Except as would not, individually or in the aggregate, have a Company Material Adverse Effect, with respect to any Employee Program ever maintained, or contributed to, by the Company or any ERISA Affiliate of the Company, there has been no (i) "prohibited transaction," as defined in Section 406 of ERISA or Code Section 4975, (ii) failure to comply with any provision of ERISA, other applicable Laws, or any agreement, or (iii) non-deductible contribution. No litigation or governmental administrative proceeding (or investigation) or other proceeding (other than those relating to routine claims for benefits) is pending or, to the Knowledge of the Company, threatened with respect to any such Company Employee Program. All payments and/or contributions required to have been made (under the provisions of any agreements or other governing documents or applicable Laws) with respect to all Employee Programs ever maintained by the Company or any ERISA Affiliate of the Company, for all periods prior to the Closing Date, either have been made or have been accrued.

(d) Neither the Company nor any ERISA Affiliate of the Company has maintained an Employee Program subject to Title IV or Section 302 of ERISA, or that is a voluntary employee beneficiary association, or a Multiemployer Plan. None of the Company Employee Programs has ever provided health care or any other non-pension benefits to any employees after their employment is terminated (other than as required by part 6 of subtitle B of title I of ERISA or state continuation Laws) or has ever promised to provide such post-termination benefits.

(e) Except as set forth on Section 2.14(e) of the Company Disclosure Schedule, each Employee Program required to be listed on Section 2.14(a) of the Company Disclosure Schedule may be amended, terminated, or otherwise discontinued by Talos after the Effective Time in accordance with its terms without material liability to the Company, Talos or any of their respective Subsidiaries.

(f) Except as set forth on Section 2.14(f) of the Company Disclosure Schedule, none of the Company or any of its Subsidiaries is a party to any written (i) agreement with any current or former stockholder, director, employee or consultant of the Company or any of its Subsidiaries (A) the benefits of which are contingent, or the terms of which are materially altered, upon the occurrence of a transaction involving the Company or any of its Subsidiaries of the nature of any of the Contemplated Transactions, (B) providing any guaranteed period of employment or compensation guarantee, or (C) providing severance benefits after the termination of employment or service of such director, employee, or consultant; or (ii) agreement or plan binding

the Company or any of its Subsidiaries, including any stock option plan, stock appreciation right plan, restricted stock plan, stock purchase plan, or severance benefit plan, any of the benefits of which shall be increased, or the vesting of the benefits of which shall be accelerated, by the occurrence of any of the Contemplated Transactions or the value of any of the benefits of which shall be calculated on the basis of any of the Contemplated Transactions. There is no contract, agreement, plan or arrangement covering any individual that, by itself or collectively, would give rise to any parachute payment subject to Section 280G of the Code, nor has Company made any such payment, and the consummation of the transactions contemplated herein shall not obligate Company or any other entity to make any parachute payment that would be subject to Section 280G of the Code.

(g) Each Company Employee Program that is a "nonqualified deferred compensation plan" within the meaning of Section 409A of the Code has been operated and maintained in compliance with Section 409A of the Code in all material respects. No stock option granted under any Company Stock Option Plan has any exercise price that was less than the fair market value of the underlying stock as of the date the option was granted, or has any feature for the deferral of compensation other than the deferral of recognition of income until the later of exercise or disposition of such option.

(h) For purposes of this Section 2.14:

(i) An entity "maintains" an Employee Program if such entity sponsors, contributes to, or provides benefits under or through such Employee Program, or has any obligation (by agreement or under applicable Laws) to contribute to or provide benefits under or through such Employee Program, or if such Employee Program provides benefits to or otherwise covers employees of such entity (or their spouses, dependents, or beneficiaries).

(ii) An entity is an "ERISA Affiliate" of Company if it would have ever been considered a single employer with Company under ERISA Section 4001(b) or part of the same "controlled group" as Company for purposes of ERISA Section 302(d)(8)(C).

2.15 Labor and Employment Matters.

(a) None of the Company or any of its Subsidiaries is a party to, or otherwise bound by, any collective bargaining agreement, contract, or other written agreement with a labor union or labor organization. To the Knowledge of the Company, none of the Company or any of its Subsidiaries is subject to, and during the past three (3) years there has not been, any charge, demand, petition, organizational campaign, or representation proceeding seeking to compel, require, or demand it to bargain with any labor union or labor organization nor is there pending or threatened any labor strike or lockout involving the Company or any of its Subsidiaries.

(b) Except as would not, individually or in the aggregate, have a Company Material Adverse Effect, (i) the Company or any of its Subsidiaries are in compliance with all applicable Laws respecting labor, employment, fair employment practices, work safety and health, terms and conditions of employment, and wages and hours, including, but not limited to Title VII of the Civil Rights Act of 1964, as amended, the Equal Pay Act of 1967, as amended, the Age Discrimination in Employment Act of 1967, as amended, the Americans with Disabilities Act, as amended, the Fair Labor Standards Act, as amended, and its state law equivalents, and the related rules and regulations adopted by those federal agencies responsible for the administration of such Laws, and other than normal accruals of wages during regular payroll cycles, there are no arrearages in the payment of wages; (ii) none of the Company or any of its Subsidiaries is delinquent in any payments to any employee or to any independent contractors, consultants, temporary employees, leased employees or other servants or agents employed or used with respect to the operation of the Company Business and classified by the Company or any of its Subsidiaries as other than an employee or compensated other than through wages paid by the Company or any of its Subsidiaries through its respective payroll department ("**Company Contingent Workers**"), for any wages, salaries, commissions, bonuses, fees or other direct compensation due with respect to any services performed for it to the date hereof or amounts required to be reimbursed to such employees or Company Contingent Workers; (iii) there are no grievances, complaints or charges with respect to employment or labor

matters (including, without limitation, allegations of employment discrimination, retaliation or unfair labor practices) pending or, to the Knowledge of the Company, threatened against the Company or any of its Subsidiaries in any judicial, regulatory or administrative forum, under any private dispute resolution procedure; (iv) none of the employment policies or practices of the Company or any of its Subsidiaries is currently being audited or investigated, or to the Knowledge of the Company, subject to imminent audit or investigation by any Governmental Authority; (v) none of the Company or any of its Subsidiaries is, or within the last three (3) years has been, subject to any order, decree, injunction or judgment by any Governmental Authority or private settlement contract in respect of any labor or employment matters; (vi) each of the Company or any of its Subsidiaries is in material compliance with the requirements of the Immigration Reform Control Act of 1986 and any similar Laws regarding employment of workers who are not citizens of the country in which services are performed; (vii) all employees of the Company or any of its Subsidiaries are employed at-will and no such employees are subject to any contract with the Company or any of its Subsidiaries or any policy or practice of the Company or any of its Subsidiaries providing for right of notice of termination of employment or the right to receive severance payments or similar benefits upon the termination of employment by the Company or any of its Subsidiaries; (viii) to the extent that any Company Contingent Workers are employed, each of the Company or any of its Subsidiaries has properly classified and treated them in accordance with applicable Laws and for purposes of all employee benefit plans and perquisites; (ix) none of the Company or any of its Subsidiaries has experienced a "plant closing," "business closing," or "mass layoff" as defined in the Worker Adjustment and Retraining Notification Act (the "**WARN Act**") or any similar Law affecting any site of employment of the Company or any of its Subsidiaries or one or more facilities or operating units within any site of employment or facility of the Company or any of its Subsidiaries, and, during the ninety (90)-day period preceding the date hereof, no employee has suffered an "employment loss," as defined in the WARN Act, with respect to the Company or any of its Subsidiaries; (x) the Company and its Subsidiaries have properly classified their respective employees as exempt or non-exempt under the Fair Labor Standards Act, as amended, its state law equivalents, and all other relevant Laws; and (xi) there are no pending or, to the Knowledge of the Company, threatened or reasonably anticipated claims or actions against the Company or its Subsidiaries under any workers' compensation policy or long-term disability policy.

(c) Section 2.15(c)(i) of the Company Disclosure Schedule contains a complete and accurate list of all employees of the Company and its Subsidiaries as of the date of this Agreement, setting forth for each employee his or her position or title, whether classified as exempt or non-exempt for wage and hour purposes and, if exempt, the type of exemption relied upon, whether paid on a salary, hourly or commission basis and the actual annual base salary or rates of compensation, bonus potential, date of hire, business location, status (*i.e.*, active or inactive and if inactive, the type of leave and estimated duration) and the total amount of bonus, retention, severance and other amounts to be paid to such employee at the Closing or otherwise in connection with the Contemplated Transactions. Section 2.15(c)(ii) of the Company Disclosure Schedule also contains a complete and accurate list of all Company Contingent Workers, showing for each Company Contingent Worker such individual's role in the Company Business and fee or compensation arrangements.

2.16 Environmental Matters.

Except as would not, individually or in the aggregate, have a Company Material Adverse Effect:

(a) the Company and its Subsidiaries are in compliance with all Environmental Laws applicable to their operations and use of the Company Leased Real Property;

(b) none of the Company or any of its Subsidiaries has generated, transported, treated, stored, or disposed of any Hazardous Material, except in material compliance with all applicable Environmental Laws, and there has been no Release or threat of Release of any Hazardous Material by the Company or its Subsidiaries at or on the Company Leased Real Property that requires reporting, investigation or remediation by the Company or its Subsidiaries pursuant to any Environmental Law;

(c) none of the Company or any of its Subsidiaries has (i) received written notice under the citizen suit provisions of any Environmental Law or (ii) been subject to or, to the Knowledge of the Company, threatened with any governmental or citizen enforcement action with respect to any Environmental Law; and

(d) to the Knowledge of the Company, there are no underground storage tanks, landfills, current or former waste disposal areas or polychlorinated biphenyls at or on the Company Leased Real Property that require reporting, investigation, cleanup, remediation or any other type of response action by the Company or its Subsidiaries pursuant to any Environmental Law.

2.17 Insurance.

The Company has delivered or made available to Talos accurate and complete copies of all material insurance policies and all material self-insurance programs and arrangements relating to the business, assets, liabilities and operations of the Company and each of its Subsidiaries. Each of such insurance policies is in full force and effect and Company and each of its Subsidiaries are in compliance with the terms thereof. Other than customary end of policy notifications from insurance carriers, since January 1, 2013, neither the Company nor any Subsidiary of the Company has received any notice or other communication regarding any actual or possible: (i) cancellation or invalidation of any insurance policy; (ii) refusal or denial of any coverage, reservation of rights or rejection of any material claim under any insurance policy; or (iii) material adjustment in the amount of the premiums payable with respect to any insurance policy. There is no pending workers' compensation or other claim under or based upon any insurance policy of the Company or any Subsidiary of the Company. All information provided to insurance carriers (in applications and otherwise) on behalf of the Company and each of its Subsidiaries was, as of the date of such provision, accurate and complete. The Company and each of its Subsidiaries have provided timely written notice to the appropriate insurance carrier(s) of each Legal Proceeding pending or threatened against Company or any Subsidiary of the Company, and no such carrier has issued a denial of coverage or a reservation of rights with respect to any such Legal Proceeding, or informed the Company or any Subsidiary of the Company of its intent to do so.

2.18 Books and Records.

Each of the minute and record books of the Company has been made available to Talos and contains complete and accurate minutes of all meetings of, and copies of all bylaws and resolutions passed by, or consented to in writing by, the directors (and any committees thereof) and stockholders of the Company, since January 1, 2012 and which are required to be maintained in such books under applicable Laws; all such meetings were duly called and held and all such bylaws and resolutions were duly passed or enacted. Each of the stock certificate books, registers of stockholders and other corporate registers of the Company comply in all material respects with the provisions of all applicable Laws and are complete and accurate in all material respects.

2.19 Government Programs.

No agreements, loans, funding arrangements or assistance programs are outstanding in favor of the Company or any of its Subsidiaries from any Governmental Authority, and, to the Knowledge of the Company, no basis exists for any Governmental Authority to seek payment or repayment from the Company or any of its Subsidiaries of any amount or benefit received, or to seek performance of any obligation of the Company or any of its Subsidiaries, under any such program.

2.20 Transactions with Affiliates.

Section 2.20 of the Company Disclosure Schedule describes any material transactions or relationships, since January 1, 2012, between, on one hand, the Company or any of its Subsidiaries and, on the other hand, any (a) executive officer or director of the Company or any of its Subsidiaries or any of such executive officer's or director's immediate family members, (b) owner of more than five percent (5%) of the voting power of the

outstanding capital stock of the Company or (c) to the Knowledge of the Company, any "related person" (within the meaning of Item 404 of Regulation S-K under the Securities Act) of any such officer, director or owner (other than the Company or its Subsidiaries) in each of the case of (a), (b) or (c) that is of the type that would be required to be disclosed under Item 404 of Regulation S-K under the Securities Act.

2.21 Legal Proceedings; Orders.

(a) Except as set forth in Section 2.21 of the Company Disclosure Schedule, as of the date hereof, there is no pending in writing Legal Proceeding, and no Person has threatened in writing to commence any Legal Proceeding: (i) that involves the Company or any Subsidiary of the Company, any director or officer of the Company (in his or her capacity as such) or any of the material assets owned or used by the Company and/or any Subsidiary; or (ii) that challenges, or that may have the effect of preventing, delaying, making illegal or otherwise interfering with, the Merger or any of the other Contemplated Transactions. To the Knowledge of the Company, no event has occurred, and no claim, dispute or other condition or circumstance exists, that will, or that would reasonably be expected to, give rise to or serve as a basis for the commencement of any such Legal Proceeding. With regard to any Legal Proceeding set forth on Section 2.21 of the Company Disclosure Schedule, the Company has provided Talos or its counsel all pleadings and material written correspondence related to such Legal Proceeding, all insurance policies and material written correspondence with brokers and insurers related to such Legal Proceedings and other information material to an assessment of such Legal Proceeding. The Company has an insurance policy or policies that is expected to cover such Legal Proceeding and has complied with the requirements of such insurance policy or policies to obtain coverage with respect to such Legal Proceeding under such insurance policy or policies.

(b) There is no order, writ, injunction, judgment or decree to which the Company or any Subsidiary of the Company, or any of the material assets owned or used by the Company or any Subsidiary of the Company, is subject. To the Knowledge of the Company, no officer or other key employee of the Company or any Subsidiary of the Company is subject to any order, writ, injunction, judgment or decree that prohibits such officer or other employee from engaging in or continuing any conduct, activity or practice relating to the Company Business or to any material assets owned or used by the Company or any Subsidiary of the Company.

2.22 Illegal Payments.

None of the Company or any of its Subsidiaries (including any of its respective officers or directors) has taken or failed to take any action which would cause it to be in material violation of the Foreign Corrupt Practices Act of 1977, the U.K. Anti-Bribery Act of 2010, the Unfair Competition Prevention Act of Japan or any similar anti-bribery or anti-corruption Law of any similar Law of any other jurisdiction, in each case as amended, or any rules or regulations thereunder. None of the Company or any of its Subsidiaries or, to the Knowledge of the Company, any third party acting on behalf of the Company or any of its Subsidiaries, has offered, paid, promised to pay, or authorized, or will offer, pay, promise to pay, or authorize, directly or indirectly, the giving of money or anything of value to any Official, or to any other Person while knowing or being aware of a high probability that all or a portion of such money or thing of value will be offered, given or promised, directly or indirectly, to any Official, for the purpose of: (i) influencing any act or decision of such Official in his, her or its official capacity, including a decision to fail to perform his, her or its official duties or functions; or (ii) inducing such Official to use his, her or its influence with any Governmental Authority to affect or influence any act or decision of such Governmental Authority, or to obtain an improper advantage in order to assist the Company, any of its Subsidiaries or any other Person in obtaining or retaining business for or with, or directing business to, the Company or any of its Subsidiaries. For purposes of this Agreement, an "**Official**" shall include any appointed or elected official, any government employee, any political party, party official, or candidate for political office, or any officer, director or employee of any Governmental Authority.

2.23 Inapplicability of Anti-takeover Statutes.

The Board of Directors of the Company has taken and will take all actions necessary to ensure that the restrictions applicable to business combinations contained in Section 203 of the DGCL are, and will be,

inapplicable to the execution, delivery and performance of this Agreement and to the consummation of the Merger and the other Contemplated Transactions. No other state takeover statute or similar Law applies or purports to apply to the Merger, this Agreement, or any of the other Contemplated Transactions.

2.24 Vote Required.

The affirmative vote (or action by written consent) of (i) the holders of a majority of the Company Common Stock and Company Preferred Stock, voting together as a single class (on an as-converted to Company Common Stock basis), and (ii) the holders of at least 66 2/3% of the outstanding shares of the Company Preferred Stock, voting together as a single class (on an as-converted to Company Common Stock basis), in each case as outstanding on the record date for the Company Stockholder Written Consent and entitled to vote thereon (the "**Company Stockholder Approval**"), is the only vote or consent of the holders of any class or series of Company Capital Stock necessary to adopt or approve this Agreement, and approve the Merger and the other matters set forth in Section 5.2(a) of this Agreement.

2.25 No Financial Advisor.

Except as set forth on Section 2.25 of the Company Disclosure Schedule, no broker, finder or investment banker is entitled to any brokerage fee, finder's fee, opinion fee, success fee, transaction fee or other fee or commission in connection with the Merger or any of the other Contemplated Transactions based upon arrangements made by or on behalf of the Company or any Subsidiary of the Company.

2.26 Disclosure; Company Information.

The information provided by the Company and its Subsidiaries to be contained in the Registration Statement will not, on the date the Registration Statement is filed with the SEC, at any time it is amended or supplemented, or at the time it becomes effective under the Securities Act, contain any untrue statement of any material fact, or omit to state any material fact required to be stated therein or necessary in order to make the statements therein not false or misleading at the time and in light of the circumstances under which such statement is made. The information in the Proxy Statement provided by the Company and its Subsidiaries (including any Company Financial Statements) will not, on the date the Proxy Statement is first mailed to the Talos Stockholders or at the time of the Talos Stockholder Meeting, contain any untrue statement of any material fact, or omit to state any material fact required to be stated therein or necessary in order to make the statements therein not false or misleading at the time and in light of the circumstances under which such statement is made. Notwithstanding the foregoing, no representation is made by the Company with respect to the information that has been or will be supplied by Talos and Merger Sub or any of their Representatives for inclusion in the Registration Statement or Proxy Statement.

Section 3. REPRESENTATIONS AND WARRANTIES OF TALOS

Talos represents and warrants to the Company as follows, except as set forth in (x) the Talos SEC Reports filed prior to the date hereof or (y) the written disclosure schedule delivered by Talos to the Company (the "**Talos Disclosure Schedule**"). The Talos Disclosure Schedule shall be arranged in parts and subparts corresponding to the numbered and lettered sections and subsections contained in this Section 3. The disclosures in any part or subpart of the Talos Disclosure Schedule shall qualify other Sections and subsections in this Section 3 only to the extent it is reasonably apparent from the face of the disclosure that such disclosure is applicable to such other Sections and subsections.

3.1 Organization.

(a) Talos is a corporation, duly organized, validly existing and in good corporate standing under the Laws of the State of Delaware. Talos has all requisite corporate power and authority to own, lease and operate all of its properties and assets and to carry on its business as it is now being conducted. Talos is duly

licensed or qualified to do business and is in corporate good standing in each jurisdiction in which the nature of the business conducted by it or the character or location of the properties and assets owned, leased, or operated by it makes such licensing or qualification necessary, except where the failure to be so licensed or qualified and in corporate good standing would not, either individually or in the aggregate, reasonably be expected to have a Talos Material Adverse Effect. The Talos Charter and Talos Bylaws, copies of which have previously been made available to the Company, are true, correct and complete copies of such documents as currently in effect and Talos is not in violation of any provision thereof. Other than the Talos Charter and Talos Bylaws, Talos is not a party to or bound by or subject to any stockholder agreement or other agreement governing the affairs of Talos or the relationships, rights and duties of stockholders and is not subject to a stockholder rights plan or similar plan.

(b) Merger Sub is a corporation duly incorporated, validly existing and in good corporate standing under the Laws of the State of Delaware. Merger Sub was formed solely for the purpose of engaging in the Contemplated Transactions. All of the issued and outstanding capital stock of Merger Sub, which consists of 100 shares of Common Stock, $0.0001 par value, is validly issued, fully paid and non-assessable, and is owned, beneficially and of record, by Talos, free and clear of any claim, lien, Encumbrance, or agreement with respect thereto. Except for obligations and liabilities incurred in connection with its incorporation and the Contemplated Transactions, Merger Sub has not, and will not have, incurred, directly or indirectly, any obligations or liabilities or engaged in any business activities of any type or kind whatsoever or entered into any agreements or arrangements with any Person. The certificate of incorporation and bylaws of Merger Sub, copies of which have previously been made available to the Company, are true, correct and complete copies of such documents as currently in effect and Merger Sub is not in violation of any provision thereof.

(c) Each of Talos' Subsidiaries is a corporation or legal entity, validly existing and, if applicable, in good standing under the Laws of the jurisdiction of its organization. Each of Talos' Subsidiaries has all requisite corporate power or other power and authority to own, lease and operate all of its properties and assets and to carry on its business as it is now being conducted. Each of Talos' Subsidiaries is duly licensed or qualified to do business in each jurisdiction in which the nature of the business conducted by it or the character or location of the properties and assets owned, leased, or operated by it makes such licensing or qualification necessary, except where the failure to be so licensed or qualified and in good standing would not, either individually or in the aggregate, reasonably be expected to have a Talos Material Adverse Effect. The certificate of incorporation and bylaws or equivalent organizational documents of each of Talos' Subsidiaries (other than Merger Sub), copies of which have previously been made available to the Company, are true, correct and complete copies of such documents as currently in effect and such Subsidiaries of Talos are not in violation of any provision thereof.

3.2 Capitalization.

(a) As of the date hereof, the authorized capital stock of Talos consists of 100,000,000 shares of Talos Common Stock and 5,000,000 shares Talos Preferred Stock. As of the date hereof, there are 34,306,435 shares of Talos Common Stock issued and outstanding (of which 512,700 shares are subject to outstanding Talos Restricted Stock Awards), and no shares of Talos Preferred Stock issued and outstanding. As of the date hereof, there are no shares of Talos Common Stock and no shares of Talos Preferred Stock held in the treasury of Talos. Talos has no shares of Talos Common Stock or Talos Preferred Stock reserved for issuance other than as described above. The outstanding shares of Talos Common Stock have been duly authorized and are validly issued, fully paid and nonassessable, and were not issued in violation of the material terms of any agreement or understanding binding upon Talos at the time at which they were issued and were issued in compliance with the Talos Charter and Talos Bylaws and all applicable Laws. Except for the Talos Stock Options, Talos does not have and is not bound by any outstanding subscriptions, options, warrants, calls, commitments, rights agreements, or agreements of any character calling for Talos to issue, deliver, or sell, or cause to be issued, delivered, or sold any shares of Talos Common Stock or any other equity security of Talos or any Subsidiary of Talos or any securities convertible into, exchangeable for, or representing the right to subscribe for, purchase, or otherwise receive any shares of Talos Common Stock or any other equity security of Talos or any Subsidiary of Talos or obligating Talos or any such Subsidiary to grant, extend, or enter into any such subscriptions, options,

warrants, calls, commitments, rights agreements, or any other similar agreements. There are no registration rights, repurchase or redemption rights, anti-dilutive rights, voting agreements, voting trusts, preemptive rights or restrictions on transfer relating to any capital stock of Talos.

(b) As of the date hereof, there are 3,665,441 shares of Talos Common Stock issuable upon exercise of all outstanding Talos Stock Options, subject to adjustment on the terms set forth in the Talos Stock Option Plans. Section 3.2(b) of the Talos Disclosure Schedule sets forth a true, correct and complete list, as of the date hereof, of (i) the name of the holder of each Talos Stock Option, (ii) the date each Talos Stock Option was granted, (iii) the number, issuer and type of securities subject to each such Talos Stock Option, (iv) the expiration date of each such Talos Stock Option, (v) the vesting schedule of each such Talos Stock Option, (vi) the price at which each such Talos Stock Option (or each component thereof, if applicable) may be exercised, (vii) the number of shares of Talos Common Stock issuable upon the exercise of such, or upon the conversion of all securities issuable upon the exercise of such, Talos Stock Options and (viii) whether and to what extent the exercisability of each Talos Stock Option will be accelerated upon consummation of the Contemplated Transactions or any termination of employment thereafter.

(c) Section 3.2(c) of the Talos Disclosure Schedule sets forth each Talos Restricted Stock Award outstanding as of the date hereof and the number of shares of Talos Common Stock subject to the award.

(d) Section 3.2(d) of the Talos Disclosure Schedule lists each Subsidiary of Talos, other than Merger Sub, as of the date hereof and indicates for each such Subsidiary as of such date (i) the percentage and type of equity securities owned or controlled, directly or indirectly, by Talos and (ii) the jurisdiction of incorporation or organization. No Subsidiary of Talos has or is bound by any outstanding subscriptions, options, warrants, calls, commitments, rights agreements, or agreements of any character calling for it to issue, deliver, or sell, or cause to be issued, delivered, or sold any of its equity securities or any securities convertible into, exchangeable for, or representing the right to subscribe for, purchase or otherwise receive any such equity security or obligating such Subsidiary to grant, extend or enter into any such subscriptions, options, warrants, calls, commitments, rights agreements, or other similar agreements. There are no outstanding contractual obligations of any Subsidiary of Talos to repurchase, redeem, or otherwise acquire any of its capital stock or other equity interests. All of the shares of capital stock of each of the Subsidiaries of Talos (A) have been duly authorized and are validly issued, fully paid (to the extent required under the applicable governing documents) and nonassessable, (B) are owned by Talos free and clear of any claim, lien, Encumbrance (other than Permitted Encumbrances), or agreement with respect thereto, (C) were not issued in violation of the material terms of any agreement or understanding binding upon Talos or any of its Subsidiaries at the time at which they were issued and (D) were issued in compliance with the applicable governing documents and all applicable Laws.

(e) The Talos Common Stock to be issued in the Merger will, when issued in accordance with the provisions of this Agreement, have been duly authorized, and be validly issued, fully paid and nonassessable.

3.3 Authority.

Talos and Merger Sub have all requisite corporate power and authority to execute and deliver this Agreement and to consummate the Contemplated Transactions and each party's respective obligations hereunder, subject only to obtaining the Talos Stockholder Approval. The adoption, execution, delivery and performance of this Agreement and the approval of the consummation of the Contemplated Transactions have been recommended by, and have been duly and validly adopted and approved by a unanimous vote of, the Boards of Directors of Talos and Merger Sub. No other approval or consent of, or action by, the holders of the outstanding securities of Talos or Merger Sub, other than the Talos Stockholder Approval, is required in order for each such party to consummate the Contemplated Transactions and perform their respective obligations hereunder. The Board of Directors of Talos has declared this Agreement advisable, has directed that this Agreement be submitted to the Talos Stockholders for adoption and approval and has recommended that the Talos Stockholders adopt and approve this Agreement. This Agreement has been duly and validly executed and delivered by Talos

and Merger Sub and (assuming due authorization, execution and delivery by the other parties hereto) constitutes a valid and binding agreement of Talos and Merger Sub, enforceable against such party in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, moratorium and other similar Laws relating to creditors' rights and general and general principles of equity. All other documents required to be executed by each of Talos and Merger Sub on or prior to the date hereof and containing obligations of Talos or Merger Sub in connection with the transactions contemplated herein have been duly and validly executed and delivered by each of Talos and Merger Sub and (assuming due authorization, execution and delivery by the other parties thereto) constitute the legal, valid and binding obligations of Talos and Merger Sub, enforceable against each such party in accordance with their respective terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium, or other similar Laws relating to creditors' rights and general principles of equity.

3.4 Non-Contravention; Consents.

(a) The execution and delivery of this Agreement by Talos and Merger Sub does not, and the consummation by Talos and Merger Sub of the Contemplated Transactions will not, (i) conflict with, or result in any violation or breach of, any provision of the Talos Charter or Talos Bylaws or of the charter, bylaws, or other organizational document of any Subsidiary of Talos, (ii) conflict with, or result in any violation or breach of, or constitute (with or without notice or lapse of time, or both) a default (or give rise to a right of termination, cancellation or acceleration of any obligation or loss of any material benefit) under, require a consent or waiver under, constitute a change in control under, require the payment of a penalty under or result in the imposition of any Encumbrances on Talos' or any of its Subsidiaries' assets under, any of the terms, conditions or provisions of any Talos Material Contract or other agreement, instrument or obligation to which Talos or any of its Subsidiaries is a party or by which any of them or any of their properties or assets may be bound, or (iii) subject to obtaining Talos Stockholder Approval and subject to the consents, approvals and authorizations specified in clauses (i) through (v) of Section 3.4(b) having been obtained prior to the Effective Time and all filings and notifications described in Section 3.4(b) having been made, conflict with or violate any Law applicable to Talos or any of its Subsidiaries or any of its or their properties or assets, except in the case of clauses (ii) and (iii) of this Section 3.4(a) for any such conflicts, violations, breaches, rights of termination, Encumbrances, penalties, defaults, terminations, cancellations, accelerations or losses that have not had, and would not reasonably be expected to result in, a Talos Material Adverse Effect.

(b) No consent, approval, license, permit, order or authorization of, or registration, declaration, notice or filing with, any Governmental Authority is required by or with respect to Talos or any of its Subsidiaries in connection with the execution and delivery of this Agreement by Talos and Merger Sub or the consummation by Talos and Merger Sub of the Contemplated Transactions, except for (i) obtaining the Talos Stockholder Approval, (ii) the filing of the Certificate of Merger with the Delaware Secretary of State and appropriate corresponding documents with the appropriate authorities of other states in which Talos is qualified as a foreign corporation to transact business, (iii) any filings required to be made with the SEC in connection with Talos Stockholder Meeting, this Agreement and the Contemplated Transactions, (iv) such consents, approvals, orders, authorizations, registrations, declarations, notices and filings as may be required under applicable state securities Laws, the rules and regulations of the NASDAQ Global Select Market, and (v) such other consents, licenses, permits, orders, authorizations, filings, approvals and registrations which, if not obtained or made, have not had, and would not reasonably be expected to result in, a Talos Material Adverse Effect.

3.5 SEC Filings; Financial Statements.

(a) Talos has filed or furnished, as applicable, on a timely basis all forms, statements, certifications, reports and documents required to be filed or furnished by it with the SEC under the Exchange Act or the Securities Act since January 1, 2012 (the forms, statements, reports and documents filed or furnished since January 1, 2012 and those filed or furnished subsequent to the date hereof, including any amendments thereto, the "**Talos SEC Reports**"). Each of the Talos SEC Reports, at the time of its filing or being furnished complied

in all material respects with the applicable requirements of the Securities Act, the Exchange Act and the Sarbanes-Oxley Act, and any rules and regulations promulgated thereunder applicable to the Talos SEC Reports, or, if not yet filed or furnished, will to the Knowledge of Talos comply in all material respects with the applicable requirements of the Securities Act, the Exchange Act and the Sarbanes-Oxley Act, and any rules and regulations promulgated thereunder applicable to the Talos SEC Reports. As of their respective dates (or, if amended prior to the date hereof, as of the date of such amendment), the Talos SEC Reports did not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements made therein, in light of the circumstances in which they were made, not misleading, and any Talos SEC Reports filed or furnished with the SEC subsequent to the date hereof will not to Talos' knowledge, contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements made therein, in light of the circumstances in which they were made, not misleading. As used in this Section 3.5(a), the term "file" and variations thereof shall be broadly construed to include any manner in which a document or information is furnished, supplied or otherwise made available to the SEC.

(b) As of the date of this Agreement, Talos has timely responded to all comment letters of the staff of the SEC relating to the Talos SEC Reports, and the SEC has not advised Talos that any final responses are inadequate, insufficient or otherwise non-responsive. Talos has made available to the Company true, correct and complete copies of all comment letters, written inquiries and enforcement correspondence between the SEC, on the one hand, and Talos and any of its Subsidiaries, on the other hand, occurring since January 1, 2013 and will, reasonably promptly following the receipt thereof, make available to the Company any such correspondence sent or received after the date hereof. To the Knowledge of Talos, as of the date of this Agreement, none of the Talos SEC Reports is the subject of ongoing SEC review or outstanding SEC comment.

(c) (i) Each of the consolidated financial statements (including, in each case, any notes or schedules thereto) included in or incorporated by reference into the Talos SEC Reports fairly present, in all material respects, the consolidated financial position of Talos and its consolidated Subsidiaries as of its date, or, in the case of the Talos SEC Reports filed after the date hereof, will fairly present, in all material respects, the consolidated financial position of Talos and its consolidated Subsidiaries as of its date and each of the consolidated statements of income, changes in stockholders' equity (deficit) and cash flows included in or incorporated by reference into the Talos SEC Reports (including any related notes and schedules) fairly presents in all material respects, the results of operations, retained earnings (loss) and changes in financial position, as the case may be, of such companies for the periods set forth therein (except as indicated in the notes thereto, and in the case of unaudited statements, as may be permitted by the rules of the SEC, and subject to normal year-end audit adjustments that will not be material in amount or effect), in each case in accordance with GAAP consistently applied during the periods involved, except as may be noted therein, or in the case of Talos SEC Reports filed after the date hereof, will fairly present, in all material respects, the results of operations, retained earnings (loss) and changes in financial position, as the case may be, of such companies for the periods set forth therein (except as indicated in the notes thereto, and in the case of unaudited statements, as may be permitted by the rules of the SEC, and subject to normal year-end audit adjustments that will not be material in amount or effect), in each case in accordance with GAAP consistently applied during the periods involved, except as may be noted therein (the "**Talos Financial Statements**").

(d) Talos has designed and maintains a system of internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act) sufficient to provide reasonable assurance regarding the reliability of financial reporting, and, to the Knowledge of Talos, such system is effective in providing such assurance. Talos (i) maintains disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act) designed to ensure that information required to be disclosed by Talos in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified by the SEC's rules and forms and, to the Knowledge of Talos, such disclosure controls and procedures are effective (ii) has disclosed, based on the most recent evaluation of its chief executive officer and its chief financial officer prior to the date hereof, to Talos' auditors and the Audit Committee of the Board of Directors of Talos (and made summaries of such disclosures available to the Company) (A) (i) any significant

deficiencies in the design or operation of internal control over financial reporting that would adversely affect in any material respect Talos' ability to record, process, summarize and report financial information and (ii) any material weakness in internal control over financial reporting, and (B) any fraud, whether or not material, that involves management or other employees who have a significant role in Talos' internal controls over financial reporting. Each of Talos and its Subsidiaries have materially complied with or substantially addressed such deficiencies, material weaknesses or fraud. Talos is in compliance in all material respects with all effective provisions of the Sarbanes-Oxley Act.

(e) Each of the principal executive officer of Talos and the principal financial officer of Talos (or each former principal executive officer of Talos and each former principal financial officer of Talos, as applicable) has made all certifications required by Rule 13a-14 or 15d-14 under the Exchange Act or Sections 302 and 906 of the Sarbanes-Oxley Act and the rules and regulations of the SEC promulgated thereunder with respect to the Talos SEC Reports, and the statements contained in such certifications were true and correct on the date such certifications were made. For purposes of this Section 3.5(e), "principal executive officer" and "principal financial officer" has the meanings given to such terms in the Sarbanes-Oxley Act. None of Talos or any of its Subsidiaries has outstanding, or has arranged any outstanding, "extensions of credit" to directors or executive officers in violation of Section 402 of the Sarbanes-Oxley Act.

(f) Neither Talos or any of its Subsidiaries nor, to the Knowledge of Talos, any director, officer, employee, or internal or external auditor of Talos or any of its Subsidiaries has received or otherwise had or obtained actual Knowledge of any substantive material complaint, allegation, assertion or claim, whether written or oral, that Talos or any of its Subsidiaries has engaged in questionable accounting or auditing practices.

(g) Talos is, and since January 1, 2013 has been, in material compliance with (i) the applicable listing and corporate governance rules and regulations of the NASDAQ Global Select Market, and (ii) the applicable provisions of the Sarbanes-Oxley Act. Talos has delivered or made available to the Company complete and correct copies of all material correspondence between NASDAQ Global Select Market and Talos and its Subsidiaries since January 1, 2013.

3.6 Absence of Changes.

Since September 30, 2014, Talos and each of its Subsidiaries have conducted their respective businesses in all material respects in the Ordinary Course of Business consistent with their past practices. Except as set forth (x) in Talos SEC Reports and (y) on Section 3.6 of the Talos Disclosure Schedule, after September 30, 2014 and on or before the date hereof:

(a) there has not been any change, event, circumstance or condition to the Knowledge of Talos that, individually or in the aggregate, has had, or would reasonably be expected to have, a Talos Material Adverse Effect;

(b) there has been no split, combination or reclassification of any of the outstanding shares of Talos' capital stock, and Talos has not declared or paid any dividends on or made any other distributions (in either case, in stock or property) on or in respect of the outstanding shares of Talos' capital stock;

(c) Talos has not allotted, reserved, set aside or issued, authorized or proposed the allotment, reservation, setting aside or issuance of, or purchased or redeemed or proposed the purchase or redemption of, any shares in its capital stock or any class of securities convertible or exchangeable into, or rights, warrants or options to acquire, any such shares or other convertible or exchangeable securities;

(d) except as required as a result of a change in applicable Laws or GAAP, there has not been any material change in any method of accounting or accounting practice by Talos or any of its Subsidiaries;

(e) neither Talos nor any of its Subsidiaries has (i) acquired or sold, pledged, leased, encumbered or otherwise disposed of any material property or assets or agreed to do any of the foregoing or (ii) incurred or committed to incur capital expenditures in excess of $100,000, in the aggregate;

(f) there has been no transfer (by way of a license or otherwise) of, or agreement to transfer to, any Person's rights to any Talos Intellectual Property;

(g) there has been no notice delivered to Talos or any of its Subsidiaries of any claim of ownership by a third party of any Talos Intellectual Property owned or developed by Talos or any of its Subsidiaries, or of infringement by Talos or any of its Subsidiaries of any third party's Intellectual Property;

(h) there has not been any (i) grant of any severance or termination pay to any employee of Talos; (ii) entry into any employment, deferred compensation, severance or other similar plan or agreement (or any amendment to any such existing agreement) with any new or current employee of Talos or any of its Subsidiaries; (iii) change in the compensation, bonus or other benefits payable or to become payable to its directors, officers, employees or consultants, except as required by any pre-existing plan or arrangement set forth in Section 3.6(h) of the Talos Disclosure Schedule; or (iv) termination of any officers or key employees of Talos or any of its Subsidiaries; and

(i) there has not been any agreement to do any of the foregoing.

3.7 Title to Assets.

Each of Talos and its Subsidiaries owns, and has good and valid title to, or, in the case of leased properties and assets, valid leasehold interests in, all tangible properties or assets and equipment used or held for use in its business or operations or purported to be owned by it. All of said assets are owned by Talos or a Talos Subsidiary free and clear of any Encumbrances, except for: (i) any lien for current Taxes not yet due and payable or for Taxes that are being contested in good faith and for which adequate reserves have been made on Talos' unaudited consolidated balance sheet at September 30, 2014; (ii) minor liens that have arisen in the Ordinary Course of Business and that do not (in any case or in the aggregate) materially detract from the value of the assets subject thereto or materially impair the operations of Talos and its Subsidiaries, taken as a whole; and (iii) Encumbrances described in Section 3.7 of the Talos Disclosure Schedule.

3.8 Properties.

(a) Section 3.8(a) of the Talos Disclosure Schedule identifies (x) the street address of each parcel of Talos Leased Real Property, (y) the identification of the Talos Leases and the Talos Ancillary Lease Documents and (z) the identity of the lessor, lessee and current occupant (if different than the lessee) of each such parcel of Talos Leased Real Property. With respect to each Talos Lease, except as would not, individually or in the aggregate, have a Talos Material Adverse Effect:

(i) the Talos Leases and the Talos Ancillary Lease Documents are valid, binding and, subject to applicable bankruptcy, insolvency, reorganization, moratorium or other similar Laws relating to creditors' rights and general principles of equity, enforceable and in full force and effect and have not been modified or amended, and Talos or a Subsidiary of Talos, as applicable, holds a valid and existing leasehold interest under such Talos Leases free and clear of any Encumbrances except Permitted Encumbrances. Talos and its Subsidiaries have delivered or made available to the Company full, complete and accurate copies of each of the Talos Leases and all Talos Ancillary Lease Documents described in Section 3.8(a)(i) of the Talos Disclosure Schedule;

(ii) none of the Talos Leased Real Property is subject to any Encumbrance other than a Permitted Encumbrance;

(iii) the Talos Leases and all Talos Ancillary Lease Documents shall continue to be legal, valid, binding, enforceable and in full force and effect on identical terms following the Closing;

(iv) with respect to each of the Talos Leases, none of Talos or its Subsidiaries has exercised or given any notice of exercise, nor has any lessor or landlord exercised or received any notice of exercise, of any option, right of first offer or right of first refusal contained in any such Talos Lease or Talos Ancillary Lease Document, including any such option or right pertaining to purchase, expansion, renewal, extension or relocation;

(v) none of Talos or its Subsidiaries, nor, to the Knowledge of Talos, any other party to any Talos Leases or Talos Ancillary Lease Documents is in breach or default, and, to the Knowledge of Talos, no event has occurred which, with notice or lapse of time, would constitute such a breach or default or permit termination, modification or acceleration under the Talos Leases or any Talos Ancillary Lease Documents;

(vi) no party to the Talos Leases has repudiated any provision thereof and there are no disputes, oral agreements or forbearance programs in effect as to the Talos Leases; and

(vii) none of Talos or its Subsidiaries has assigned, transferred, conveyed, mortgaged, deeded in trust or encumbered any of its rights and interest in the leasehold or subleasehold under any of the Talos Leases or any Talos Ancillary Lease Documents.

(b) Talos and its Subsidiaries own good title, free and clear of all Encumbrances, to all personal property and other non-real estate assets, in all cases excluding the Talos Intellectual Property, necessary to conduct the Talos Business, except for Permitted Encumbrances. Talos and its Subsidiaries, as lessees, have the right under valid and subsisting leases to use, possess and control all personal property leased by Talos and its Subsidiaries as now used, possessed and controlled by Talos or its Subsidiaries, as applicable.

(c) The Talos Leased Real Property constitutes all of the real property used or occupied by Talos and its Subsidiaries in connection with the conduct of the Talos Business.

(d) None of Talos or its Subsidiaries has any Talos Owned Real Property, nor is Talos or any of its Subsidiaries a party to or bound by or subject to any agreement, contract or commitment, or any option to purchase, any real or immovable property.

3.9 Intellectual Property.

(a) Section 3.9(a) of the Talos Disclosure Schedule contains a complete and accurate list of all (i) Patents owned by Talos or any of its Subsidiaries or used or held for use by Talos or any of its Subsidiaries in the Talos Business ("**Talos Patents**"), registered and material unregistered Marks owned by Talos or any of its Subsidiaries or used or held for use by Talos or any of its Subsidiaries in the Talos Business ("**Talos Marks**") and registered and material unregistered Copyrights owned by Talos or any of its Subsidiaries or used or held for use by Talos or any of its Subsidiaries in the Talos Business ("**Talos Copyrights**"), (ii) licenses, sublicenses or other agreements under which Talos or any of its Subsidiaries is granted rights by others in the Talos Intellectual Property ("**Talos Licenses-In**") (other than commercial off the shelf software or materials transfer agreements), and (iii) licenses, sublicenses or other agreements under which Talos or any of its Subsidiaries has granted rights to others in the Talos Intellectual Property ("**Talos Licenses-Out**").

(b) With respect to the Talos Intellectual Property (i) purported to be owned by Talos or any of its Subsidiaries, Talos or one of its Subsidiaries exclusively owns such Talos Intellectual Property and (ii) licensed to Talos or any of its Subsidiaries by a third party (other than commercial off the shelf software or materials transfer agreements), such Talos Intellectual Property are the subject of a written license or other agreement; in

the case of the foregoing clauses (i) and (ii) above, free and clear of all Encumbrances, other than Encumbrances resulting from the express terms of a Talos License-In or Talos License-Out or Permitted Encumbrances granted by Talos or one of its Subsidiaries.

(c) All Talos Intellectual Property owned by and, to the Knowledge of Talos, all Talos Intellectual Property owned by or exclusively licensed to Talos or any of its Subsidiaries that have been issued by, or registered with, or are the subject of an application filed with, as applicable, the U.S. Patent and Trademark Office, the U.S. Copyright Office or any similar office or agency anywhere in the world are currently in compliance with formal legal requirements (including without limitation, as applicable, payment of filing, examination and maintenance fees, inventor declarations, proofs of working or use, timely post-registration filing of affidavits of use and renewal applications), and, to the Knowledge of Talos, all Talos Patents, Talos Marks and Talos Copyrights, and all intellectual property rights and/or proprietary rights relating to any of the foregoing, that are owned by or exclusively licensed to Talos or any of its Subsidiaries are valid and enforceable.

(d) To the Knowledge of Talos, each Talos Patent that has been issued by, or registered with, or is the subject of an application filed with, as applicable, the U.S. Patent and Trademark Office or any similar office or agency anywhere in the world was issued, registered, or filed, as applicable, with the correct inventorship and there has been no known misjoinder or nonjoinder of inventors.

(e) No Talos Patent is now involved in any interference, reissue, re-examination or opposition proceeding; to the Knowledge of Talos, there is no patent or patent application of any third party that potentially interferes with a Talos Patent; all products made, used or sold under the Talos Patents have been marked with the proper patent notice.

(f) There are no pending or, to the Knowledge of Talos, threatened claims against Talos or any of its Subsidiaries or any of their employees alleging that any of the operation of the Talos Business or any activity by Talos or its Subsidiaries, or the manufacture, sale, offer for sale, importation, and/or use of any Talos Product infringes or violates (or in the past infringed or violated) any Third Party Intellectual Property or constitutes a misappropriation of (or in the past constituted a misappropriation of) any subject matter of any Intellectual Property of any person or entity or that any Talos Intellectual Property is invalid or unenforceable.

(g) To the Knowledge of Talos, neither the operation of the Talos Business, nor any activity by Talos or any of its Subsidiaries, nor manufacture, use, importation, offer for sale and/or sale of any Talos Product infringes or violates (or in the past infringed or violated) any Third Party Intellectual Property or constitutes a misappropriation of (or in the past constituted a misappropriation of) any subject matter of any Third Party Intellectual Property.

(h) None of Talos or any of its Subsidiaries has any obligation to compensate any person for the use of any Intellectual Property; neither Talos nor any of its Subsidiaries has entered into any agreement to indemnify any other person against any claim of infringement or misappropriation of any Intellectual Property; there are no settlements, covenants not to sue, consents, judgments, or orders or similar obligations that: (i) restrict Talos' or any of its Subsidiaries' rights to use any Intellectual Property, (ii) restrict the Talos Business, in order to accommodate a third party's Intellectual Property, or (iii) permit third parties to use any Talos Intellectual Property.

(i) All former and current employees, consultants and contractors of Talos and its Subsidiaries have executed written instruments with Talos or one or more of its Subsidiaries that assign to Talos all rights, title and interest in and to any and all (i) inventions, improvements, discoveries, writings and other works of authorship, and information relating to the Talos Business or any of the products or services being researched, developed, manufactured or sold by Talos or any of its Subsidiaries or that may be used with any such products or services and (ii) Intellectual Property relating thereto; in each case where a Talos Patent is held by Talos or any of its Subsidiaries by assignment, the assignment has been duly recorded with the U.S. Patent and Trademark Office and all similar offices and agencies anywhere in the world in which foreign counterparts are registered or issued.

(j) To the Knowledge of Talos, (i) there is no, nor has there been any, infringement or violation by any person or entity of any Talos Intellectual Property or the rights of Talos or any of its Subsidiaries therein or thereto and (ii) there is no, nor has there been any, misappropriation by any person or entity of any Talos Intellectual Property or the subject matter thereof.

(k) Talos and each of its Subsidiaries has taken reasonable security measures to protect the secrecy, confidentiality and value of all Trade Secrets owned by Talos or any of its Subsidiaries or used or held for use by Talos or any of its Subsidiaries in the Talos Business (the "**Talos Trade Secrets**"), including, without limitation, requiring each employee of Talos and its Subsidiaries and each consultant of Talos and its Subsidiaries and any other person with access to Talos Trade Secrets to execute a binding confidentiality agreement, copies or forms of which have been provided to the Company and, to Talos' knowledge, there has not been any breach by any party to such confidentiality agreements.

(l) Following the Effective Time, the Surviving Corporation will have the same rights and privileges in the Talos Intellectual Property as Talos had in the Talos Intellectual Property immediately prior to the Effective Time.

3.10 Material Contracts.

Section 3.10 of the Talos Disclosure Schedule is a correct and complete list of each currently effective Talos Contract:

(a) relating to the lease of real property by Talos or any of its Subsidiaries;

(b) for the purchase of materials, supplies, goods, services, equipment or other assets for annual payments by Talos or any of its Subsidiaries of, or pursuant to which in the last year Talos or any of its Subsidiaries paid, in the aggregate, $100,000 or more;

(c) for the sale of materials, supplies, goods, services, equipment or other assets for annual payments to Talos or any of its Subsidiaries of, or pursuant to which in the last year Talos or any of its Subsidiaries received, in the aggregate, $100,000 or more;

(d) that relates to any partnership, joint venture, strategic alliance or other similar Contract;

(e) relating to Indebtedness for borrowed money or the deferred purchase price of property (whether incurred, assumed, guaranteed or secured by any asset), except for Contracts relating to Indebtedness in an amount not exceeding $100,000 in the aggregate;

(f) severance or change-in-control Contracts;

(g) which by its terms limits in any material respect (i) the localities in which all or any significant portion of the business and operations of Talos or its Subsidiaries or, following the consummation of the Contemplated Transactions, the business and operations of the Surviving Corporation, Talos or any Affiliate of Talos, is or would be conducted, or (ii) the scope of the business and operations of Talos and its Subsidiaries, taken as a whole;

(h) in respect of any Talos Intellectual Property that provides for annual payments of, or pursuant to which in the last year Talos or any of its Subsidiaries paid or received, in the aggregate, $10,000 or more;

(i) containing any royalty, dividend or similar arrangement based on the revenues or profits of Talos or any of its Subsidiaries;

(j) with any Governmental Authority;

(k) any Contract with (a) an executive officer or director of Talos or any of its Subsidiaries or any of such executive officer's or director's immediate family members, (b) an owner of more than five percent (5%) of the voting power of the outstanding capital stock of Talos or (c) to the Knowledge of Talos, any "related person" (within the meaning of Item 404 of Regulation S-K under the Securities Act) of any such officer, director or owner (other than Talos or its Subsidiaries);

(l) any agreement that gives rise to any material payment or benefit as a result of the performance of this Agreement or any of the other Contemplated Transactions;

(m) relating to the acquisition or disposition of any material interest in, or any material amount of, property or assets of Talos or any of its Subsidiaries or for the grant to any Person of any preferential rights to purchase any of their assets, other than in the Ordinary Course of Business consistent with past practice; or

(n) any other agreement (or group of related agreements) the performance of which requires aggregate payments to or from Talos or any of its Subsidiaries in excess of $100,000.

Talos has delivered or made available to the Company accurate and complete (except for applicable redactions thereto) copies of all material written Talos Contracts, including all amendments thereto. There are no material Talos Contracts that are not in written form. Except as set forth on Section 3.10 of the Talos Disclosure Schedule, neither Talos nor any Subsidiary of Talos has, nor to Talos' Knowledge, has any other party to a Talos Material Contract (as defined below), breached, violated or defaulted under, or received notice that it has breached, violated or defaulted under, any of the terms or conditions of any of the agreements, contracts or commitments to which Talos or its Subsidiaries is a party or by which it is bound of the type described in clauses (a) through (n) above or any Talos Contract listed in Section 3.14 or Section 3.15 of the Talos Disclosure Schedule (any such agreement, contract or commitment, a "**Talos Material Contract**") in such manner as would permit any other party to cancel or terminate any such Talos Material Contract, which has had or would reasonably be expected to have a Talos Material Adverse Effect. As to Talos and its Subsidiaries, as of the date of this Agreement, each Talos Material Contract is valid, binding, enforceable and in full force and effect, subject to: (i) Laws of general application relating to bankruptcy, insolvency and the relief of debtors; and (ii) rules of Law governing specific performance, injunctive relief and other equitable remedies. The consummation of the Contemplated Transactions will not (either alone or upon the occurrence of additional acts or events) result in any material payment or payments becoming due from Talos, any Subsidiary of Talos, or the Surviving Corporation to any Person under any Talos Material Contract or give any Person the right to terminate or alter the provisions of any Talos Material Contract. No Person is renegotiating any material amount paid or payable to Talos or any of its Subsidiaries under any Talos Material Contract or any other material term or provision of any Talos Material Contract.

3.11 Absence of Undisclosed Liabilities.

Neither Talos nor any Subsidiary of Talos has any Liability, individually or in the aggregate, except for: (a) Liabilities identified as such in the "liabilities" column of Talos' unaudited consolidated balance sheet at September 30, 2014; (b) normal and recurring current Liabilities that have been incurred by Talos since the date of Talos' unaudited consolidated balance sheet September 30, 2014 in the Ordinary Course of Business and which are not in excess of $100,000 in the aggregate; (c) Liabilities described in Section 3.11 of the Talos Disclosure Schedule and (d) Liabilities incurred in connection with the Contemplated Transactions.

3.12 Compliance with Laws; Regulatory Compliance.

(a) Each of Talos and each of its Subsidiaries is in compliance with all Laws or Orders, except where any such failure to be in compliance has not had, or would not reasonably be expected to have, individually or in the aggregate, a Talos Material Adverse Effect. No investigation or review by any Governmental Authority with respect to Talos or any of its Subsidiaries is pending or, to the Knowledge of Talos, threatened, nor has any Governmental Authority indicated an intention to conduct the same which, in each case, would reasonably be expected to have a material and adverse impact on Talos or any of its Subsidiaries.

(b) Except as has not had, and would not reasonably be expected to have, individually or in the aggregate, a Talos Material Adverse Effect, each of Talos and its Subsidiaries and their respective employees and agents hold all permits, licenses, variances, registrations, exemptions, Orders, consents and approvals from the FDA and any other Governmental Authority that is concerned with the quality, identity, strength, purity, safety, efficacy or manufacturing of Talos Products (any such Governmental Authority, a "**Talos Regulatory Agency**") necessary for the lawful operating of the businesses of Talos and each of its Subsidiaries as currently conducted (the "**Talos Permits**"), including all authorizations required under the FDCA and the regulations of the FDA promulgated thereunder, and the PHSA. Notwithstanding the foregoing, it is acknowledged that no Talos Product is a marketed product or has received marketing approval (with the exception of Inversine, which was approved in the United States for the management of moderately severe to severe essential hypertension and uncomplicated cases of malignant hypertension) and, therefore, that further permits, licenses, variances, registrations, exemptions, Orders, consents and/or approvals will be required before any Talos Product may be marketed. Except as has not had, and would not reasonably be expected to have, individually or in the aggregate, a Talos Material Adverse Effect, all such Talos Permits are valid, and in full force and effect. Since January 1, 2013, there has not occurred any violation of, default (with or without notice or lapse of time or both) under, or event giving to others any right of termination, amendment or cancellation of, with or without notice or lapse of time or both, any Talos Permit except as has not had, and would not reasonably be expected to have, individually or in the aggregate, a Talos Material Adverse Effect. Each of Talos and each of its Subsidiaries is in compliance in all material respects with the terms of all Talos Permits, and no event has occurred that, to the Knowledge of Talos, would reasonably be expected to result in the revocation, cancellation, non-renewal or adverse modification of any Talos Permit, except as has not had, and would not reasonably be expected to have, individually or in the aggregate, a Talos Material Adverse Effect.

(c) None of Talos or its Subsidiaries nor, to the Knowledge of Talos, any director, officer, employee, agent or Representative thereof, has committed any act, made any statement or failed to make any statement that would reasonably be expected to provide a basis for the FDA or any other Talos Regulatory Agency to invoke its policy with respect to "Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities," as set forth in 56 Fed. Reg. 46191 (Sept. 10, 1991) and any amendments thereto. None of Talos or its Subsidiaries nor, to the Knowledge of Talos, any director, officer, employee, agent or Representative thereof, has engaged in any activity prohibited under any Health Care Law. There is no civil, criminal, administrative or other proceeding, notice or demand pending, received or, to the Knowledge of Talos, threatened against Talos or any of its Subsidiaries that relates to an alleged violation of any Health Care Law. None of Talos or any of its Subsidiaries nor, to the Knowledge of Talos, any director, officer, employee, agent or Representative thereof, has been convicted of any crime or engaged in any conduct for which debarment is mandated by 21 U.S.C. sec. 335a(a) or any similar Law or authorized by 21 U.S.C. sec. 335a(b) or any similar Law. There are no consent decrees (including plea agreements) or similar actions to which Talos or any of its Subsidiaries or, to the Knowledge of Talos, any director, officer, employee, agent or Representative thereof, are bound or which relate to Talos Products.

(d) Each of Talos and each of its Subsidiaries is and has been in compliance in all material respects with all applicable statutes, rules, regulations, decrees, writs and orders of the FDA and any other Talos Regulatory Agency with respect to the labeling, storing, testing, development, manufacture, packaging and distribution of the Talos Products. All required pre-clinical toxicology studies conducted by or on behalf of Talos or its Subsidiaries and Talos-sponsored clinical trials (or clinical trials sponsored by Talos or any other Subsidiary) conducted or being conducted with respect thereto, have been and are being conducted in compliance in all material respects with applicable licenses and Laws, including, without limitation, the applicable requirements of the FDA's current Good Manufacturing Practices, Good Laboratory Practices and Good Clinical Practices. The results of any such studies, tests and trials, and all other material information related to such studies, tests and trials, have been made available to the Company. Each clinical trial conducted by or on behalf of Talos or any of its Subsidiaries with respect to Talos Products has been conducted in accordance with its clinical trial protocol, and in compliance in all material respects with all applicable Laws, including Good Clinical Practices, Informed Consent and all other applicable requirements contained in 21 CFR Parts 312, 50,

54, 56 and 11. Each of Talos and its Subsidiaries has filed all required notices (and made available to the Company copies thereof) of adverse drug experiences, injuries or deaths relating to clinical trials conducted by or on behalf of Talos or any of its Subsidiaries with respect to such Talos Products.

(e) All applications, submissions, information and data utilized by any Talos or any of its Subsidiaries as the basis for, or submitted by or on behalf of Talos or any of its Subsidiaries in connection with any and all requests for a Talos Permit relating to Talos or any of its Subsidiaries, when submitted to the FDA or other Talos Regulatory Agency, were true, correct and complete in all material respects as of the date of submission, and any updates, changes, corrections or modification to such applications, submissions, information and data required under applicable Laws have been submitted to the FDA or other Talos Regulatory Agency.

(f) None of Talos or its Subsidiaries nor, to the Knowledge of Talos, any of the Representatives, licensors, licensees, assignors or assignees thereof has received any notice that the FDA or any other Talos Regulatory Agency has initiated, or threatened to initiate, any Action to suspend any clinical trial, suspend or terminate any Investigational New Drug Application sponsored by Talos or any of its Subsidiaries or otherwise restrict the pre-clinical research or clinical study of any Talos Product or any drug product being developed by any licensee or assignee of the Talos Intellectual Property based on such intellectual property, or to recall, suspend or otherwise restrict the development or manufacture of any Talos Product. None of Talos or any of its Subsidiaries is in receipt of written notice of, or is subject to, any adverse inspection, finding of deficiency, finding of non-compliance, investigation, civil or criminal proceeding, hearing, suit, demand, claim, complaint, inquiry, proceeding, or other compliance or enforcement action relating to any Talos Products. To the Knowledge of Talos, there is no act, omission, event or circumstance that would reasonably be expected to give rise to any such action.

(g) Talos and its Subsidiaries have made available to the Company true, correct and complete copies of any and all applications, approvals, licenses, written notices of inspectional observations, establishment inspection reports and any other documents received from the FDA or other Talos Regulatory Agency, including documents that indicate or suggest lack of compliance with the regulatory requirements of the FDA or other Talos Regulatory Agency. Talos and its Subsidiaries have made available to the Company for review all correspondence to or from the FDA or other Talos Regulatory Agency, minutes of meetings, written reports of phone conversations, visits or other contact with the FDA or other Talos Regulatory Agency, notices of inspectional observations, establishment inspection reports, and all other documents concerning communications to or from the FDA or other Talos Regulatory Agency, or prepared by the FDA or other Talos Regulatory Agency or which bear in any way on Talos' or any of its Subsidiaries' compliance with regulatory requirements of the FDA or any other Talos Regulatory Agency, or on the likelihood or timing of approval of any Talos Products.

3.13 Taxes and Tax Returns.

(a) Each material Tax Return required to be filed by, or on behalf of, Talos or any of its Subsidiaries, and each material Tax Return in which Talos or any of its Subsidiaries was required to be included, has been timely filed. Each such Tax Return was true, correct and complete in all material respects.

(b) Talos and each of its Subsidiaries (i) has paid (or has had paid on its behalf) all material Taxes due and owing, whether or not shown as due on any Tax Return, and (ii) has withheld and remitted to the appropriate Taxing Authority all material Taxes required to be withheld and paid in connection with any amounts paid or owing to or collected from any employee, independent contractor, supplier, creditor, stockholder, partner, member or other third party, and all Forms W-2 and 1099 required with respect thereto have been properly completed and timely filed.

(c) The unpaid Taxes of Talos and its Subsidiaries (A) did not, as of December 31, 2013, exceed the reserve for Tax liability (rather than any reserve for deferred Taxes established to reflect timing differences between book and Tax income) set forth on the face of Talos' audited consolidated balance sheet at

December 31, 2013 (rather than in any notes thereto) and (B) will not exceed that reserve as adjusted for operations and transactions through the Closing Date in accordance with the past custom and practice of Talos and its Subsidiaries in filing their Tax Returns.

(d) Section 3.13(d) of the Talos Disclosure Schedule lists all federal, state, local, and foreign Tax Returns filed with respect to Talos or any of its Subsidiaries for taxable periods ended on or after December 31, 2008, indicates those Tax Returns that have been audited, and indicates those Tax Returns that currently are the subject of audit. Talos has delivered or made available to the Company correct and complete copies of all federal Income Tax Returns, examination reports, and statements of deficiencies assessed against, or agreed to by Talos or any of its Subsidiaries since December 31, 2008.

(e) There are no liens for Taxes (other than Taxes not yet due and payable or which are being contested in good faith by appropriate proceedings and for which adequate reserves have been established in the applicable financial statements in accordance with GAAP) upon any of the assets of Talos or any of its Subsidiaries.

(f) None of Talos or any of its Subsidiaries is currently the beneficiary of any extension of time within which to file any material Tax Return or with respect to any material Tax assessment or deficiency.

(g) None of Talos or any of its Subsidiaries has waived any statute of limitations with respect to any material Taxes.

(h) There is no material Tax claim, audit, suit, or administrative or judicial Tax proceeding now pending or presently in progress or threatened in writing with respect to a material Tax Return of Talos or any of its Subsidiaries.

(i) None of Talos or any of its Subsidiaries has received notice in writing of any proposed material deficiencies from any Taxing Authority.

(j) None of Talos or any of its Subsidiaries has distributed stock of a corporation, or has had its stock distributed, in a transaction purported or intended to be governed in whole or in part by Sections 355 or 361 of the Code.

(k) None of Talos or any of its Subsidiaries is party to or has any obligation under any Tax sharing agreement (whether written or not) or any Tax indemnity or other Tax allocation agreement or arrangement (other than any such agreement, the primary purpose of which does not relate to Taxes).

(l) None of Talos or any of its Subsidiaries (A) is or has ever been a member of a group of corporations that files or has filed (or has been required to file) consolidated, combined, or unitary Tax Returns, other than a group the common parent of which was Talos or (B) has any liability for the Taxes of any person (other than Talos or any of its Subsidiaries) under Treasury Regulations Section 1.1502-6 (or any similar provision of state, local or foreign Law), as a transferee or successor, by contract or otherwise.

(m) The taxable year of Talos and each of its Subsidiaries for all income Tax purposes is the fiscal year ended December 31st, and Talos and each of its Subsidiaries uses the accrual method of accounting in keeping its books and in computing its taxable income.

(n) None of Talos or any of its Subsidiaries has been a United States real property holding corporation within the meaning of Section 897(c)(2) of the Code at any time during the applicable period specified in Section 897(c)(1)(A)(ii) of the Code.

(o) No Subsidiary of Talos which is a foreign corporation (i) shall have recognized a material amount of "subpart F income" as defined in Section 952 of the Code during a taxable year of such Subsidiary that includes but does not end on the Closing Date, (ii) is a resident of any jurisdiction other than that of its incorporation, or (iii) is engaged in a U.S. trade or business.

(p) None of Talos or any of its Subsidiaries has participated in a listed transaction within the meaning of Treasury Regulations Section 1.6011-4 (or any predecessor provision).

(q) None of Talos or any of its Subsidiaries will be required to include any material item of income in, or exclude any material item of deduction from, taxable income for any taxable period (or portion thereof) ending after the Closing Date as a result of any:

(i) change in method of accounting or use of an improper method of accounting for a taxable period ending on or prior to the Closing Date;

(ii) "closing agreement" as described in Section 7121 of the Code (or any corresponding or similar provision of state, local or foreign income Tax Law) executed on or prior to the Closing Date;

(iii) intercompany transactions or any excess loss account described in Treasury Regulations under Section 1502 of the Code (or any corresponding or similar provision of state, local or foreign income Tax Law);

(iv) installment sale or open transaction disposition made on or prior to the Closing Date;

(v) prepaid amount received on or prior to the Closing Date;

(vi) election with respect to income from the discharge of Indebtedness under Section 108(i) of the Code; or

(vii) any similar election, action, or agreement that would have the effect of deferring any Liability for Taxes of Talos or any of its Subsidiaries from any period ending on or before the Closing Date to any period ending after such period.

(r) No written claim has been made by any Taxing Authority that Talos or any of its Subsidiaries is or may be subject to Tax or required to file a Tax Return in a jurisdiction where it does not file Tax Returns, which could reasonably be expected to have, individually or in the aggregate, a Talos Material Adverse Effect.

(s) Neither Talos nor any of its Subsidiaries has taken any action or knows of any fact or circumstance that could reasonably be expected to prevent the Merger from qualifying as a reorganization within the meaning of Section 368(a) of the Code.

3.14 Employee Benefit Programs.

(a) Section 3.14(a) of the Talos Disclosure Schedule sets forth a list of every Employee Program maintained by Talos or an ERISA Affiliate of Talos (the "**Talos Employee Programs**").

(b) Each Talos Employee Program which is intended to qualify under Section 401(a) of the Code has received a favorable determination or approval letter from the IRS with respect to such qualification, or may rely on an opinion letter issued by the IRS with respect to a prototype plan adopted in accordance with the requirements for such reliance, or has time remaining for application to the IRS for a determination of the qualified status of such Talos Employee Program for any period for which such Talos Employee Program would not otherwise be covered by an IRS determination. To the Knowledge of Talos, no event or omission has occurred which would reasonably be expected to cause any Talos Employee Program to lose its qualification or otherwise fail to satisfy the relevant requirements to provide tax-favored benefits under the applicable Code Section (including without limitation Code Sections 105, 125, 401(a) and 501(c)(9)).

(c) Neither Talos nor any Subsidiary of Talos knows, nor should any of them reasonably know, of any material failure of any party to comply with any Laws applicable with respect to the Employee Programs maintained by Talos or any ERISA Affiliate of Talos. Except as would not, individually or in the aggregate, have a Talos Material Adverse Effect, with respect to any Employee Program ever maintained, or contributed to, by Talos or any ERISA Affiliate of Talos, there has been no (i) "prohibited transaction," as defined in Section 406 of ERISA or Code Section 4975, (ii) failure to comply with any provision of ERISA, other applicable Laws, or any agreement, or (iii) non deductible contribution. No litigation or governmental administrative proceeding (or investigation) or other proceeding (other than those relating to routine claims for benefits) is pending or, to the Knowledge of Talos, threatened with respect to any such Talos Employee Program. All payments and/or contributions required to have been made (under the provisions of any agreements or other governing documents or applicable Laws) with respect to all Employee Programs ever maintained by Talos or any ERISA Affiliate of Talos, for all periods prior to the Closing Date, either have been made or have been accrued.

(d) Neither Talos nor any ERISA Affiliate of Talos has maintained an Employee Program subject to Title IV or Section 302 of ERISA, or that is a voluntary employee benefit association, or a Multiemployer Plan. None of the Talos Employee Programs has ever provided health care or any other non-pension benefits to any employees after their employment is terminated (other than as required by part 6 of subtitle B of title I of ERISA or state continuation Laws) or has ever promised to provide such post-termination benefits.

(e) Except as set forth on Section 3.14(e) of the Talos Disclosure Schedule, each Employee Program required to be listed on Section 3.14(a) of the Talos Disclosure Schedule may be amended, terminated, or otherwise discontinued by Talos after the Effective Time in accordance with its terms without material liability to Talos, the Company or any of their respective Subsidiaries.

(f) Except as set forth on Section 3.14(f) of the Talos Disclosure Schedule, neither Talos nor any of its Subsidiaries is a party to any written (i) agreement with any current or former stockholder, director, employee or consultant of Talos or any of its Subsidiaries (A) the benefits of which are contingent, or the terms of which are materially altered, upon the occurrence of a transaction involving Talos or any of its Subsidiaries of the nature of any of the Contemplated Transactions, (B) providing any guaranteed period of employment or compensation guarantee, or (C) providing severance benefits after the termination of employment or service of such director, employee or consultant; or (ii) agreement or plan binding Talos or any of its Subsidiaries, including any stock option plan, stock appreciation right plan, restricted stock plan, stock purchase plan, or severance benefit plan, any of the benefits of which shall be increased, or the vesting of the benefits of which shall be accelerated, by the occurrence of any of the Contemplated Transactions or the value of any of the benefits of which shall be calculated on the basis of any of the Contemplated Transactions. There is no contract, agreement, plan or arrangement covering any individual that, by itself or collectively, would give rise to any parachute payment subject to Section 280G of the Code, nor has Talos made any such payment, and the consummation of the transactions contemplated herein shall not obligate Talos or any other entity to make any parachute payment that would be subject to Section 280G of the Code.

(g) Each Talos Employee Program that is a "nonqualified deferred compensation plan" within the meaning of Section 409A of the Code has been operated and maintained in compliance with Section 409A of the Code in all material respects. No stock option granted under any Talos Stock Option Plan has any exercise price that was less than the fair market value of the underlying stock as of the date the option was granted, or has any feature for the deferral of compensation other than the deferral of recognition of income until the later of exercise or disposition of such option.

(h) For purposes of this Section 3.14:

(i) An entity "**maintains**" an Employee Program if such entity sponsors, contributes to, or provides benefits under or through such Employee Program, or has any obligation (by agreement or under applicable Laws) to contribute to or provide benefits under or through such Employee Program, or if such Employee Program provides benefits to or otherwise covers employees of such entity (or their spouses, dependents, or beneficiaries).

(ii) An entity is an "**ERISA Affiliate**" of Talos if it would have ever been considered a single employer with Talos under ERISA Section 4001(b) or part of the same "controlled group" as Talos for purposes of ERISA Section 302(d)(8)(C).

3.15 Labor and Employment Matters.

(a) None of Talos or any of its Subsidiaries is a party to, or otherwise bound by, any collective bargaining agreement, contract, or other written agreement with a labor union or labor organization. To the Knowledge of Talos, neither Talos nor any of its Subsidiaries is subject to, and during the past three (3) years there has not been, any charge, demand, petition, organizational campaign, or representation proceeding seeking to compel, require, or demand it to bargain with any labor union or labor organization nor is there pending or threatened any labor strike or lockout involving Talos or any of its Subsidiaries.

(b) Except as would not, individually or in the aggregate, have a Talos Material Adverse Effect, (i) Talos and its Subsidiaries are in compliance in all material respects with all applicable Laws respecting labor, employment, fair employment practices, work safety and health, terms and conditions of employment, wages and hours, including, but not limited to Title VII of the Civil Rights Act of 1964, as amended, the Equal Pay Act of 1967, as amended, the Age Discrimination in Employment Act of 1967, as amended, the Americans with Disabilities Act, as amended, the Fair Labor Standards Act, as amended, and its state law equivalents, and the related rules and regulations adopted by those federal agencies responsible for the administration of such Laws, and other than normal accruals of wages during regular payroll cycles, there are no arrearages in the payment of wages; (ii) neither Talos nor any of its Subsidiaries is delinquent in any payments to any employee or to any independent contractors, consultants, temporary employees, leased employees or other servants or agents employed or used with respect to the operation of the Talos Business and classified by Talos or any of its Subsidiaries as other than an employee or compensated other than through wages paid by Talos or any of its Subsidiaries through its respective payroll department ("**Talos Contingent Workers**"), for any wages, salaries, commissions, bonuses, fees or other direct compensation due with respect to any services performed for it to the date hereof or amounts required to be reimbursed to such employees or Talos Contingent Workers; (iii) there are no grievances, complaints or charges with respect to employment or labor matters (including, without limitation, allegations of employment discrimination, retaliation or unfair labor practices) pending or, to the Knowledge of Talos, threatened against Talos or any of its Subsidiaries in any judicial, regulatory or administrative forum, under any private dispute resolution procedure; (iv) none of the employment policies or practices of Talos or any of its Subsidiaries is currently being audited or investigated, or to the Knowledge of Talos, subject to imminent audit or investigation by any Governmental Authority; (v) neither Talos nor any of its Subsidiaries is, or within the last three (3) years has been, subject to any order, decree, injunction or judgment by any Governmental Authority or private settlement contract in respect of any labor or employment matters; (vi) Talos and each of its Subsidiaries is in material compliance with the requirements of the Immigration Reform Control Act of 1986 and any similar Laws regarding employment of workers who are not citizens of the country in which services are performed; (vii) all employees of Talos and each of its Subsidiaries are employed at-will and no such employees are subject to any contract with Talos or any of its Subsidiaries or any policy or practice of Talos or any of its Subsidiaries providing for right of notice of termination of employment or the right to receive severance payments or similar benefits upon the termination of employment by Talos or any of its Subsidiaries; (viii) to the extent that any Talos Contingent Workers are employed, Talos and each of its Subsidiaries has properly classified and treated them in accordance with applicable Laws and for purposes of all employee benefit plans and perquisites; (ix) neither Talos nor any of its Subsidiaries has experienced a "plant closing," "business closing," or "mass layoff" as defined in the WARN Act or any similar Law affecting any site of employment of Talos or any of its Subsidiaries or one or more facilities or operating units within any site of employment or facility of Talos or any of its Subsidiaries, and, during the ninety (90)-day period preceding the date hereof, no employee has suffered an "employment loss," as defined in the WARN Act, with respect to Talos or any of its Subsidiaries; and (x) there are no pending or, to the knowledge of Talos, threatened or reasonably anticipated claims or actions against Talos or its Subsidiaries under any workers' compensation policy or long-term disability policy.

(c) Section 3.15(c)(i) of the Talos Disclosure Schedule contains a complete and accurate list of all employees of Talos and its Subsidiaries as of the date of this Agreement, setting forth for each employee his or her position or title, whether classified as exempt or non-exempt for wage and hour purposes and, if exempt, the type of exemption relied upon, whether paid on a salary, hourly or commission basis and the actual annual base salary or rates of compensation, bonus potential, date of hire, business location, status (*i.e.*, active or inactive and if inactive, the type of leave and estimated duration) and the total amount of bonus, retention, severance and other amounts to be paid to such employee at the Closing or otherwise in connection with the Contemplated Transactions. Section 3.15(c)(ii) of the Talos Disclosure Schedule also contains a complete and accurate list of all Talos Contingent Workers, showing for each Talos Contingent Worker such individual's role in the Talos Business and fee or compensation arrangements.

3.16 Environmental Matters.

Except as would not, individually or in the aggregate, have a Talos Material Adverse Effect:

(a) Talos and its Subsidiaries are in compliance with all Environmental Laws applicable to their operations and use of the Talos Leased Real Property;

(b) none of Talos or any of its Subsidiaries has generated, transported, treated, stored, or disposed of any Hazardous Material, except in material compliance with all applicable Environmental Laws, and there has been no Release or threat of Release of any Hazardous Material by Talos or its Subsidiaries at or on the Talos Leased Real Property that requires reporting, investigation or remediation by Talos or its Subsidiaries pursuant to any Environmental Law;

(c) none of Talos or any of its Subsidiaries has (i) received written notice under the citizen suit provisions of any Environmental Law or (ii) been subject to or, to the Knowledge of Talos, threatened with any governmental or citizen enforcement action with respect to any Environmental Law; and

(d) to the Knowledge of Talos, there are no underground storage tanks, landfills, current or former waste disposal areas or polychlorinated biphenyls at or on the Talos Leased Real Property that require reporting, investigation, cleanup, remediation or any other type of response action by Talos or its Subsidiaries pursuant to any Environmental Law.

3.17 Insurance.

Talos has made available to the Company accurate and complete copies of all material insurance policies and all material self-insurance programs and arrangements relating to the business, assets, liabilities and operations of Talos and each Subsidiary of Talos. Each of such insurance policies is in full force and effect and Talos and each Subsidiary of Talos are in compliance with the terms thereof. Other than customary end of policy notifications from insurance carriers, since January 1, 2013, neither Talos nor any Subsidiary of Talos has received any notice or other communication regarding any actual or possible: (i) cancellation or invalidation of any insurance policy; (ii) refusal or denial of any coverage, reservation of rights or rejection of any material claim under any insurance policy; or (iii) material adjustment in the amount of the premiums payable with respect to any insurance policy. There is no pending workers' compensation or other claim under or based upon any insurance policy of Talos or any Subsidiary of Talos. All information provided to insurance carriers (in applications and otherwise) on behalf of Talos and each of its Subsidiaries was, as of the date of such provision, accurate and complete. Talos and each of its Subsidiaries has provided timely written notice to the appropriate insurance carrier(s) of each Legal Proceeding pending or threatened in writing against Talos or any Subsidiary of Talos, and no such carrier has issued a denial of coverage or a reservation of rights with respect to any such Legal Proceeding, or informed Talos or any Subsidiary of Talos of its intent to do so.

3.18 Books and Records.

Each of the minute and record books of Talos contains complete and accurate minutes of all meetings of, and copies of all bylaws and resolutions passed by, or consented to in writing by, the directors (and any

committees thereof) and stockholders of Talos, since January 1, 2011 and which are required to be maintained in such books under applicable Laws; all such meetings were duly called and held and all such bylaws and resolutions were duly passed or enacted. Each of the stock certificate books, registers of stockholders and other corporate registers of Talos comply in all material respects with the provisions of all applicable Laws and are complete and accurate in all material respects.

3.19 Government Programs.

No agreements, loans, funding arrangements or assistance programs are outstanding in favor of Talos or any of its Subsidiaries from any Governmental Authority, and, to the Knowledge of Talos, no basis exists for any Governmental Authority to seek payment or repayment from Talos or any of its Subsidiaries of any amount or benefit received, or to seek performance of any obligation of Talos or any of its Subsidiaries, under any such program.

3.20 Transactions with Affiliates.

Except as set forth in the Talos SEC Reports filed prior to the date of this Agreement, since the date of Talos' last proxy statement filed in 2014 with the SEC, no event has occurred that would be required to be reported by Talos pursuant to Item 404 of Regulation S-K promulgated by the SEC. Section 3.20 of the Talos Disclosure Schedule identifies each Person who is (or who may be deemed to be) an "affiliate" (as that term is used in Rule 12b-2 under the Exchange Act) of Talos as of the date of this Agreement.

3.21 Legal Proceedings; Orders.

(a) Except as set forth in Section 3.21 of the Talos Disclosure Schedule, as of the date hereof, there is no pending in writing Legal Proceeding, and no Person has threatened in writing to commence any Legal Proceeding: (i) that involves Talos, any Subsidiary of Talos or any director or officer of Talos (in his or her capacity as such) or any of the material assets owned or used by Talos and/or any Subsidiary; or (ii) that challenges, or that may have the effect of preventing, delaying, making illegal or otherwise interfering with, the Merger or any of the other Contemplated Transactions. To the Knowledge of Talos, no event has occurred, and no claim, dispute or other condition or circumstance exists, that will, or that would reasonably be expected to, give rise to or serve as a basis for the commencement of any such Legal Proceeding. With regard to any Legal Proceeding set forth on Section 3.21 of the Talos Disclosure Schedule, Talos has provided the Company or its counsel all pleadings and material written correspondence related to such Legal Proceeding, all insurance policies and material written correspondence with brokers and insurers related to such Legal Proceedings and other information material to an assessment of such Legal Proceeding. Talos has an insurance policy or policies that is expected to cover such Legal Proceeding and has complied with the requirements of such insurance policy or policies to obtain coverage with respect to such Legal Proceeding under such insurance policy or policies.

(b) There is no order, writ, injunction, judgment or decree to which Talos or any Subsidiary of Talos, or any of the assets owned or used by Talos or any Subsidiary of Talos, is subject. To the Knowledge of Talos, no officer or other key employee of Talos or any Subsidiary of Talos is subject to any order, writ, injunction, judgment or decree that prohibits such officer or other employee from engaging in or continuing any conduct, activity or practice relating to the Talos Business or to any material assets owned or used by Talos or any Subsidiary of Talos.

3.22 Illegal Payments.

None of Talos or any of its Subsidiaries (including any of its respective officers or directors) has taken or failed to take any action which would cause it to be in material violation of the Foreign Corrupt Practices Act of 1977, the U.K. Anti-Bribery Act of 2010, the Unfair Competition Prevention Act of Japan or any similar anti-bribery or anti-corruption Law of any similar Law of any other jurisdiction, in each case as amended, or any rules

or regulations thereunder. None of Talos or any of its Subsidiaries or, to the Knowledge of Talos, any third party acting on behalf of Talos or any of its Subsidiaries, has offered, paid, promised to pay, or authorized, or will offer, pay, promise to pay, or authorize, directly or indirectly, the giving of money or anything of value to any Official, or to any other Person while knowing or being aware of a high probability that all or a portion of such money or thing of value will be offered, given or promised, directly or indirectly, to any Official, for the purpose of: (i) influencing any act or decision of such Official in his, her or its official capacity, including a decision to fail to perform his, her or its official duties or functions; or (ii) inducing such Official to use his, her or its influence with any Governmental Authority to affect or influence any act or decision of such Governmental Authority, or to obtain an improper advantage in order to assist Talos, any of its Subsidiaries or any other Person in obtaining or retaining business for or with, or directing business to, Talos or any of its Subsidiaries.

3.23 Inapplicability of Anti-takeover Statutes.

The Boards of Directors of Talos and Merger Sub have taken and will take all actions necessary to ensure that the restrictions applicable to business combinations contained in Section 203 of the DGCL are, and will be, inapplicable to the execution, delivery and performance of this Agreement and the Voting Agreements and to the consummation of the Merger and the other Contemplated Transactions. No other state takeover statute or similar Law applies or purports to apply to the Merger, this Agreement, the Voting Agreements or any of the other Contemplated Transactions.

3.24 Vote Required.

The affirmative vote of (i) the holders of a majority of the shares of Talos Common Stock having voting power representing a majority of the outstanding Common Stock and (ii) the holders of a majority of the votes properly cast at the Talos Stockholder Meeting are the only votes of the holders of any class or series of Talos' capital stock necessary to approve the Talos Stockholder Proposals (the "**Talos Stockholder Approval**").

3.25 No Financial Advisor.

Except as set forth on Section 3.25 of the Talos Disclosure Schedule, no broker, finder or investment banker is entitled to any brokerage fee, finder's fee, opinion fee, success fee, transaction fee or other fee or commission in connection with the Merger or any of the other Contemplated Transactions based upon arrangements made by or on behalf of Talos or any Subsidiary of Talos.

3.26 Disclosure; Talos Information.

The information relating to Talos or its Subsidiaries to be contained in the Registration Statement will not, on the date the Registration Statement is filed with the SEC, at any time it is amended or supplemented, or at the time it becomes effective under the Securities Act, contain any untrue statement of any material fact, or omit to state any material fact required to be stated therein or necessary in order to make the statements therein not false or misleading at the time and in light of the circumstances under which such statement is made. The information relating to Talos or its Subsidiaries to be contained in the Proxy Statement will not, on the date the Proxy Statement is first mailed to Talos Stockholders or at the time of the Talos Stockholder Meeting, contain any untrue statement of any material fact, or omit to state any material fact required to be stated therein or necessary in order to make the statements therein not false or misleading at the time and in light of the circumstances under which such statement is made. The Registration Statement and the Proxy Statement will comply in all material respects as to form with the requirements of the Securities Act, the Exchange Act and the rules and regulations thereunder. Notwithstanding the foregoing, no representation is made by Talos or Merger Sub with respect to the information that has been or will be supplied by the Company, any of its Subsidiaries or any of their respective Representatives for inclusion in the Registration Statement or Proxy Statement.

Section 4. CERTAIN COVENANTS OF THE PARTIES

4.1 Access and Investigation.

Subject to the terms of the Confidentiality Agreement which the Parties agree will continue in full force following the date of this Agreement, during the period commencing on the date of this Agreement and ending at the earlier of the date of termination of this Agreement and the Effective Time (the "**Pre-Closing Period**"), upon reasonable notice, each Party shall, and shall use commercially reasonable efforts to cause such Party's Representatives to: (a) provide the other Party and such other Party's Representatives with reasonable access during normal business hours to such Party's Representatives, personnel and assets and to all existing books, records, Tax Returns, work papers and other documents and information relating to such Party and its Subsidiaries; (b) provide the other Party and such other Party's Representatives with such copies of the existing books, records, Tax Returns, work papers, product data, and other documents and information relating to such Party and its Subsidiaries, and with such additional financial, operating and other data and information regarding such Party and its Subsidiaries as the other Party may reasonably request; and (c) permit the other Party's officers and other employees to meet, upon reasonable notice and during normal business hours, with the chief financial officer and other officers and managers of such Party responsible for such Party's financial statements and the internal controls of such Party to discuss such matters as the other Party may deem necessary or appropriate in order to enable the other Party to satisfy its obligations under the Sarbanes-Oxley Act and the rules and regulations relating thereto. Without limiting the generality of any of the foregoing, during the Pre-Closing Period, each Party shall promptly make available to the other Party with copies of:

(i) the unaudited monthly consolidated balance sheets of such Party as of the end of each calendar month and the related unaudited monthly consolidated statements of operations, statements of stockholders' equity and statements of cash flows for such calendar month, which shall be delivered within thirty (30) days after the end of such calendar month, or such longer periods as the Parties may agree to in writing;

(ii) all material operating and financial reports prepared by such Party for its senior management, including sales forecasts, marketing plans, development plans, discount reports, write-off reports, hiring reports and capital expenditure reports prepared for its management;

(iii) any written materials or communications sent by or on behalf of a Party to all of its stockholders;

(iv) subject to the confidentiality obligations of the Company set forth in the Research and License Agreement, dated as of June 29, 2009, by and between Pfizer (as a successor to Wyeth) and the Company, any material meeting minutes or notice sent by or on behalf of a Party to any party to any Talos Material Contract or Company Material Contract, as applicable, or sent to a Party by any party to any Talos Material Contract or Company Material Contract, as applicable (other than any communication that relates solely to routine commercial transactions between such Party and the other party to any such Talos Material Contract or Company Material Contract, as applicable, and that is of the type sent in the Ordinary Course of Business and consistent with past practices);

(v) any notice, report or other document filed with or otherwise furnished, submitted or sent to any Governmental Authority on behalf of a Party in connection with the Merger or any of the Contemplated Transactions;

(vi) any non-privileged notice, material pleading or material settlement communication sent by or on behalf of, or sent to, a Party relating to any pending or threatened Legal Proceeding involving or affecting such Party; and

(vii) any material notice, report or other document received by a Party from any Governmental Authority.

Notwithstanding the foregoing, any Party may restrict the foregoing access to the extent that any Law applicable to such party requires such Party to restrict or prohibit access to any such properties or information or as may be necessary to preserve the attorney-client privilege under any circumstances in which such privilege may be jeopardized by such disclosure or access.

4.2 Operation of Talos' Business.

(a) Except as set forth on Section 4.2 of the Talos Disclosure Schedule, during the Pre-Closing Period: (i) Talos shall conduct its business and operations: (A) in the Ordinary Course of Business; and (B) in compliance with all applicable Laws and the requirements of all Contracts that constitute Talos Material Contracts; and (ii) Talos shall promptly notify the Company of: (A) any notice or other communication from any Person alleging that the consent of such Person is or may be required in connection with any of the Contemplated Transactions; (B) any Legal Proceeding against, relating to, involving or otherwise affecting Talos that is commenced, or, to the Knowledge of Talos, threatened in writing against, Talos after the date of this Agreement and (C) any written notice or, to the Knowledge of Talos, other communication from any Person alleging that any material payment or other material obligation is or will be owed to such party at any time before or after the date of this Agreement, except for invoices or other communications related to agreements or dealings in the Ordinary Course of Business, payments or obligations related to the Contemplated Transactions or payments or obligations identified in this Agreement, including the Talos Disclosure Schedule.

(b) During the Pre-Closing Period, Talos shall promptly notify the Company in writing, by delivering an updated Talos Disclosure Schedule, of: (i) the discovery by Talos of any event, condition, fact or circumstance that occurred or existed on or prior to the date of this Agreement and that caused or constitutes a material inaccuracy in any representation or warranty made by Talos in this Agreement; (ii) any event, condition, fact or circumstance that occurs, arises or exists after the date of this Agreement and that would cause or constitute a material inaccuracy in any representation or warranty made by Talos in this Agreement if: (A) such representation or warranty had been made as of the time of the occurrence, existence or discovery of such event, condition, fact or circumstance; or (B) such event, condition, fact or circumstance had occurred, arisen or existed on or prior to the date of this Agreement; (iii) any material breach of any covenant or obligation of Talos; and (iv) any event, condition, fact or circumstance that could reasonably be expected to make the timely satisfaction of any of the conditions set forth in Section 6, Section 7 and Section 8 impossible or materially less likely. Without limiting the generality of the foregoing, Talos shall promptly advise the Company in writing of any Legal Proceeding or material, written claim threatened, commenced, or asserted against Talos or (to the Knowledge of Talos) any director, officer, or key employee of Talos. No notification given to the Company pursuant to this Section 4.2(b) shall change, limit or otherwise affect any of the representations, warranties, covenants or obligations of Talos contained in this Agreement or the Talos Disclosure Schedule for purposes of Section 8.1.

4.3 Operation of the Company's Business.

(a) Except as set forth on Section 4.3 of the Company Disclosure Schedule, during the Pre-Closing Period: (i) the Company and each Subsidiary of the Company shall conduct its business and operations: (A) in the Ordinary Course of Business; and (B) in compliance with all applicable Laws and the requirements of all Contracts that constitute Company Material Contracts; (ii) the Company and each Subsidiary of the Company shall use commercially reasonable efforts to preserve intact its current business organization, use commercially reasonable efforts to keep available the services of its current key employees, officers and other employees and maintain its relations and goodwill with all suppliers, customers, landlords, creditors, licensors, licensees, employees and other Persons having business relationships with the Company or its Subsidiaries; and (iii) the Company shall promptly notify Talos of: (A) any notice or other communication from any Person alleging that the consent of such Person is or may be required in connection with any of the Contemplated Transactions; and (B) any Legal Proceeding against, relating to, involving or otherwise affecting the Company or any Subsidiary of the Company that is commenced, or, to the Knowledge of the Company, threatened in writing against, the Company or any Subsidiary of the Company.

(b) During the Pre-Closing Period, the Company shall promptly notify Talos in writing, by delivery of an updated Company Disclosure Schedule, of: (i) the discovery by the Company of any event, condition, fact or circumstance that occurred or existed on or prior to the date of this Agreement and that caused or constitutes a material inaccuracy in any representation or warranty made by the Company in this Agreement; (ii) any event, condition, fact or circumstance that occurs, arises or exists after the date of this Agreement and that would cause or constitute a material inaccuracy in any representation or warranty made by the Company in this Agreement if: (A) such representation or warranty had been made as of the time of the occurrence, existence or discovery of such event, condition, fact or circumstance; or (B) such event, condition, fact or circumstance had occurred, arisen or existed on or prior to the date of this Agreement; (iii) any material breach of any covenant or obligation of the Company; and (iv) any event, condition, fact or circumstance that could reasonably be expected to make the timely satisfaction of any of the conditions set forth in Section 6, Section 7 and Section 8 impossible or materially less likely. Without limiting the generality of the foregoing, the Company shall promptly advise Talos in writing of any Legal Proceeding or material, written claim threatened, commenced or asserted against the Company or any Subsidiary of the Company, or, to the Knowledge of the Company, any director, officer, or key employee of the Company. No notification given to Talos pursuant to this Section 4.3(b) shall change, limit or otherwise affect any of the representations, warranties, covenants or obligations of the Company contained in this Agreement or the Company Disclosure Schedule for purposes of Section 7.1.

4.4 Negative Obligations.

(a) Except (i) as expressly required by this Agreement, (ii) as set forth in Section 4.4(a) of the Talos Disclosure Schedule, or (iii) with the prior written consent of the Company, at all times during the Pre-Closing Period, Talos shall not, nor shall it cause or permit any Subsidiary of Talos to, do any of the following:

(i) declare, accrue, set aside or pay any dividend other than the Pre-Closing Dividend or make any other distribution in respect of any shares of capital stock; or repurchase, redeem or otherwise reacquire any shares of capital stock or other securities (except for shares of Talos Common Stock from terminated employees of Talos);

(ii) except for contractual commitments in place at the time of this Agreement and disclosed in Section 3.10 and/or Section 3.13(a) of the Talos Disclosure Schedule, and other than the Reverse Stock Split, sell, issue or grant, or authorize the issuance of or make any commitments to do any of the foregoing: (i) any capital stock or other security (except for Talos Common Stock issued upon the valid exercise of outstanding Talos Stock Options); (ii) any option, warrant or right to acquire any capital stock or any other security; or (iii) any instrument convertible into or exchangeable for any capital stock or other security;

(iii) amend the certificate of incorporation, bylaws or other charter or organizational documents of Talos or any Subsidiary of Talos, or effect or be a party to any merger, consolidation, share exchange, business combination, recapitalization, reclassification of shares, stock split, or reverse stock split except for the Contemplated Transactions;

(iv) form any new Subsidiary or acquire any equity interest or other interest in any other Person;

(v) lend money to any Person; incur or guarantee any Indebtedness for borrowed money; issue or sell any debt securities or options, warrants, calls or other rights to acquire any debt securities; guarantee any debt securities of others; or make any capital expenditure or commitment in excess of $100,000 other than in the Ordinary Course of Business;

(vi) (A) adopt, establish or enter into any Talos Employee Program; (B) cause or permit any Talos Employee Program to be amended other than as required by Law or in order to make amendments for the purposes of Section 409A of the Code, subject to prior review and approval (with such approval not to be unreasonably withheld) by the Company; (C) hire any new employee or consultant; (D) grant, make or pay any

severance, bonus or profit-sharing or similar payment to, or increase the amount of the wages, salary, commissions, fringe benefits or other compensation or remuneration payable to, any of its directors, employees or consultants;

(vii) enter into any material transaction outside the Ordinary Course of Business;

(viii) acquire any material asset nor sell, lease or otherwise irrevocably dispose of any of its material assets or properties, nor grant any Encumbrance with respect to such assets or properties, except in the Ordinary Course of Business;

(ix) make, change or revoke any material Tax election; file any material amendment to any income Tax Return; adopt or change any accounting method in respect of Taxes; change any annual Tax accounting period; enter into any material Tax allocation agreement, Tax sharing agreement or Tax indemnity agreement, other than commercial contracts entered into in the Ordinary Course of Business with vendors, customers or landlords; enter into any closing agreement with respect to any Tax; settle or compromise any claim, notice, audit report or assessment in respect of material Taxes; apply for or enter into any ruling from any Tax authority with respect to Taxes; surrender any right to claim a material Tax refund; or consent to any extension or waiver of the statute of limitations period applicable to any material Tax claim or assessment;

(x) enter into, amend or terminate any Talos Material Contract;

(xi) commence a lawsuit other than (A) for routine collection of bills, (B) in such cases as Talos in good faith determines that failure to commence such lawsuit would result in the material impairment of a valuable aspect of Talos' and/or any Subsidiary of Talos' business or (C) for a breach of this Agreement;

(xii) fail to make any material payment with respect to any of Talos's accounts payable or Indebtedness in a timely manner in accordance with the terms thereof and consistent with past practices; or

(xiii) agree to take, take or permit any Subsidiary of Talos to take or agree to take, any of the actions specified in clauses (i) through (xii) of this Section 4.4(a).

(b) Except (i) as expressly required by this Agreement, (ii) as set forth in Section 4.4(b) of the Company Disclosure Schedule, or (iii) with the prior written consent of Talos, at all times during the Pre-Closing Period, the Company shall not, nor shall it cause or permit any Subsidiary of the Company to, do any of the following:

(i) declare, accrue, set aside or pay any dividend or make any other distribution in respect of any shares of capital stock; or repurchase, redeem or otherwise reacquire any shares of capital stock or other securities (except for shares of Company Common Stock from terminated employees of the Company);

(ii) amend the Company Charter, Company Bylaws or other charter or organizational documents of the Company, or effect or be a party to any merger, consolidation, share exchange, business combination, recapitalization, reclassification of shares, stock split, reverse stock split or similar transaction;

(iii) except as disclosed in Section 4.4(b)(iii) of the Company Disclosure Schedule, sell, issue or grant, or authorize the issuance of, or make any commitments to do any of the following: (i) any capital stock or other security (except for shares of Company Common Stock issued upon the valid exercise of Company Stock Options or Company Warrants outstanding on the date hereof and disclosed in Section 2.2(c) and Section 2.2(d) of the Company Disclosure Schedule); (ii) any option, warrant or right to acquire any capital stock or any other security; or (iii) any instrument convertible into or exchangeable for any capital stock or other security;

(iv) form any Subsidiary or acquire any equity interest or other interest in any other Person;

(v) other than in the Ordinary Course of Business, lend money to any Person; incur or guarantee any Indebtedness for borrowed money; issue or sell any debt securities or options, warrants, calls or other rights to acquire any debt securities; guarantee any debt securities of others; or make any capital expenditure or commitment in excess of $100,000, other than in the Ordinary Course of Business;

(vi) other than in the Ordinary Course of Business (i) adopt, establish or enter into any Company Employee Program; (ii) cause or permit any Company Employee Program to be amended other than as required by Law; or (iii) pay any bonus or made any profit-sharing or similar payment to, or increase the amount of the wages, salary, commissions, fringe benefits or other compensation or remuneration payable to, any of its directors, officers or employees;

(vii) acquire any material asset nor sell, lease or otherwise irrevocably dispose of any of its assets or properties, nor grant any Encumbrance with respect to such assets or properties, except in the Ordinary Course of Business;

(viii) make, change or revoke any material Tax election; file any material amendment to any income Tax Return; adopt or change any accounting method in respect of Taxes; change any annual Tax accounting period; enter into any material Tax allocation agreement, Tax sharing agreement or Tax indemnity agreement, other than commercial contracts entered into in the Ordinary Course of Business with vendors, customers or landlords; enter into any closing agreement with respect to any Tax; settle or compromise any claim, notice, audit report or assessment in respect of material Taxes; apply for or enter into any ruling from any Tax authority with respect to Taxes; surrender any right to claim a material Tax refund; or consent to any extension or waiver of the statute of limitations period applicable to any material Tax claim or assessment;

(ix) unless approved by the Company Board of Directors, enter into, amend or terminate any Company Material Contract other than in the Ordinary Course of Business;

(x) fail to make any payment with respect to any of the Company's accounts payable or Indebtedness in a timely manner in accordance with the terms thereof and consistent with past practices; or

(xi) agree to take, take or permit any Subsidiary of the Company to take or agree to take, any of the actions specified in clauses (i) through (viii) of this Section 4.4(b).

4.5 Mutual Non-Solicitation.

(a) No Solicitation by the Company.

(i) Unless and until this Agreement is terminated in accordance with the provisions of Section 9, without the prior written consent of Talos, none of the Company, any of its Subsidiaries or any Representative of any of the Company or its Subsidiaries shall directly or indirectly (A) initiate, solicit, seek or knowingly encourage or support any inquiries, proposals or offers that constitute or may reasonably be expected to lead to, a Company Acquisition Proposal (as defined below), (B) engage or participate in, or knowingly facilitate, any discussions or negotiations regarding, or furnish any nonpublic information to any Person in connection with, any inquiries, proposals or offers that constitute, or may reasonably be expected to lead to, a Company Acquisition Proposal, or (C) enter into any letter of intent, agreement in principle or other similar type of agreement relating to a Company Acquisition Proposal, or enter into any agreement or agreement in principle requiring Company to abandon, terminate or fail to consummate the transactions contemplated hereby or resolve, propose or agree to do any of the foregoing; provided, however, that prior to the adoption and approval of this Agreement by the Company Stockholders pursuant to the Company Stockholder Written Consent, Company may take the following actions in response to an unsolicited bona fide written Company Acquisition Proposal received after the date hereof that the Board of Directors of Company has determined, in good faith, after consultation with its outside counsel and nationally recognized independent financial advisors, constitutes, or is reasonably

expected to result in, a Company Superior Offer: (1) furnish nonpublic information regarding Company to the third party making the Company Acquisition Proposal (a "**Company Qualified Bidder**") and (2) engage in discussions or negotiations with the Company Qualified Bidder and its Representatives with respect to such Company Acquisition Proposal; provided that (w) Company receives from the Company Qualified Bidder an executed confidentiality agreement the terms of which are not less restrictive to such Person than those contained in the Confidentiality Agreement, and containing additional provisions that expressly permit Company to comply with the terms of this Section 4.5 (a copy of such confidentiality agreement shall promptly, and in any event within twenty-four (24) hours, be provided to Talos, (x) Company contemporaneously supplies to Talos any such nonpublic information or access to any such nonpublic information to the extent it has not been previously provided or made available to Talos, (y) neither the Company nor any Subsidiary nor any Representative of the Company or any Subsidiary shall have breached this Section 4.5, and (z) the Board of Directors of Company determines in good faith, after consultation with its outside legal counsel and financial advisors, that taking such actions would be required to comply with the fiduciary duties of the Board of Directors of Company under applicable Laws. Without limiting the generality of the foregoing, the Company acknowledges and agrees that any violation of any of the restrictions set forth in the preceding sentence by any Representative of the Company or any of its Subsidiaries, whether or not such Representative is purporting to act on behalf of the Company or any of its Subsidiaries, shall be deemed to constitute a breach of this Section 4.5(a)(i) by the Company.

(ii) For purposes of this Agreement,

(A) "**Company Acquisition Proposal**" means any proposal, indication of interest or offer for (i) a merger, tender offer, recapitalization, reorganization, liquidation, dissolution, business combination, share exchange, arrangement or consolidation, or any similar transaction involving Company or its Subsidiaries, (ii) a sale, lease, exchange, mortgage, pledge, transfer or other acquisition of fifteen percent (15%) or more of the assets of Company and its Subsidiaries, taken as a whole, in one or a series of related transactions, or (iii) a purchase, tender offer or other acquisition (including by way of merger, consolidation, share exchange, arrangement, consolidation or otherwise) of beneficial ownership (the term "beneficial ownership" for purposes of this Agreement having the meaning assigned thereto in Section 13(d) of the Exchange Act and the rules and regulations thereunder) of securities representing fifteen percent (15%) or more of the voting power of Company (including securities of Company currently beneficially owned by such Person); provided, however, that the term "Company Acquisition Proposal" shall not include the Merger or the other transactions contemplated by this Agreement; and

(B) "**Company Superior Offer**" shall mean an unsolicited bona fide Company Acquisition Proposal (with all references to "fifteen percent (15%)" in the definition of Company Acquisition Proposal being treated as references to "one hundred percent (100%)" for these purposes) made by a third party that the Board of Directors of Company determines in good faith, after consultation with its outside legal counsel and financial advisor, and after taking into account all financial, legal, regulatory, and other aspects of such Company Acquisition Proposal (including the financing terms and the ability of such third party to finance such Company Acquisition Proposal), (1) is more favorable from a financial point of view to the Company Stockholders than as provided hereunder (including any changes to the terms of this Agreement proposed by Talos in response to such Company Superior Offer), (2) is not subject to any financing condition (and if financing is required, such financing is then fully committed to the third party), (3) is reasonably capable of being completed on the terms proposed without unreasonable delay and (4) includes termination rights exercisable by Company on terms no less favorable to Company than the terms set forth in this Agreement, all from a third party capable of performing such terms.

(iii) Except as otherwise provided in Section 4.5(a)(iv), neither the Board of Directors of Company nor any committee of the Board of Directors of Company shall fail to make, withhold, withdraw, amend, change or publicly propose to withhold, withdraw, amend or change in a manner adverse to Talos, the Company Board Recommendation, knowingly make any public statement inconsistent with such recommendation, fail to recommend against acceptance of a tender offer within ten (10) Business Days after

commencement, propose publicly to approve, adopt or recommend any Company Acquisition Proposal, make any public statement inconsistent with its recommendation, or fail to reaffirm the Company Board Recommendation or fail to state publicly that the Merger and this Agreement are in the best interests of the Company Stockholders, within five (5) Business Days after Talos requests in writing that such action be taken (any action described in this sentence being referred to as a "**Company Change of Recommendation**").

(iv) Notwithstanding the foregoing, if at any time prior to the approval of the Company Acquisition Proposal, the Company receives a Company Acquisition Proposal (not obtained or made as a direct or indirect result of a breach of this Agreement) that the Board of Directors of the Company concludes in good faith, after consultation with its outside legal counsel and financial advisors, constitutes a Company Superior Offer, and the Board of Directors of the Company determines in good faith (after consultation with outside legal counsel) that such Company Change of Recommendation or entry into such definitive agreement would be required to comply with the fiduciary duties of the Board of Directors of the Company under applicable Laws, the Board of Directors of the Company may (i) effect a Company Change of Recommendation, and/or (ii) enter into a definitive agreement with respect to such Company Superior Offer and terminate this Agreement; provided, however that the Company shall not terminate this Agreement pursuant to the foregoing clause (ii), and any purported termination pursuant to the foregoing clause (ii) shall be void and of no force or effect, unless the Company has complied with this Section 4.5 and in advance of or concurrently with such termination the Company pays the fee set forth in Section 9.3; provided further, however, that such actions in the foregoing clauses (i) and (ii) may only be taken at a time that is after (A) the fifth (5th) Business Day following Talos's receipt of written notice from the Company that the Board of Directors of the Company and/or a committee thereof is prepared to take such action (which notice will specify the material terms of the applicable Company Acquisition Proposal), (B) at the end of such period, the Board of Directors of the Company and/or a committee thereof determines in good faith, after taking into account all amendments or revisions irrevocably committed to by Talos and after consultation with the Company's outside legal counsel and financial advisors, that such Company Acquisition Proposal remains a Company Superior Offer and (C) if requested by Talos during such five (5) Business Day period, the Company engages in good faith negotiations with Talos to amend this Agreement in such a manner that the offer that was determined to constitute a Company Superior Offer no longer constitutes a Company Superior Offer. During any such five (5) Business Day period, Talos shall be entitled to deliver to the Company one or more counterproposals to such Company Acquisition Proposal.

(v) Nothing in this Section 4.5 shall prohibit the Board of Directors of Company from making any disclosure to the Company Stockholders, if, in the good faith judgment of the Board of Directors of Company, after consultation with its outside legal counsel, such disclosure would be required to comply with its fiduciary duties under applicable Laws.

(b) No Solicitation by Talos.

(i) Unless and until this Agreement is terminated in accordance with the provisions of Section 9, without the prior written consent of Company, none of Talos, its Subsidiaries or any Representative of Talos or any of its Subsidiaries shall directly or indirectly (A) initiate, solicit, seek or knowingly encourage or support any inquiries, proposals or offers that constitute or may reasonably be expected to lead to, a Talos Acquisition Proposal (as defined below), (B) engage or participate in, or knowingly facilitate, any discussions or negotiations regarding, or furnish any nonpublic information to any Person in connection with, any inquiries, proposals or offers that constitute, or may reasonably be expected to lead to, a Talos Acquisition Proposal, or (C) enter into any letter of intent, agreement in principle or other similar type of agreement relating to a Talos Acquisition Proposal, or enter into any agreement or agreement in principle requiring Talos to abandon, terminate or fail to consummate the transactions contemplated hereby or resolve, propose or agree to do any of the foregoing; provided, however, that prior to the approval of the Talos Stockholder Proposals at the Talos Stockholder Meeting, Talos may take the following actions in response to an unsolicited bona fide written Talos Acquisition Proposal received after the date hereof that the Board of Directors of Talos has determined, in good faith, after consultation with its outside counsel and nationally recognized independent financial advisors,

constitutes, or is reasonably expected to result in, a Talos Superior Offer: (1) furnish nonpublic information regarding Talos to the third party making the Talos Acquisition Proposal (a "**Talos Qualified Bidder**"); and (2) engage in discussions or negotiations with the Talos Qualified Bidder and its Representatives with respect to such Talos Acquisition Proposal; provided that (w) Talos receives from the Talos Qualified Bidder an executed confidentiality agreement the terms of which are not less restrictive to such Person than those contained in the Confidentiality Agreement, and containing additional provisions that expressly permit Talos to comply with the terms of this Section 4.5 (a copy of such confidentiality agreement shall promptly, and in any event within twenty-four (24) hours, be provided to Company, (x) Talos contemporaneously supplies to Company any such nonpublic information or access to any such nonpublic information to the extent it has not been previously provided or made available to Company, (y) neither Talos nor any Subsidiary nor any Representative of Talos or any Subsidiary shall have breached this Section 4.5, and (z) the Board of Directors of Talos determines in good faith, after consultation with its outside legal counsel, that taking such actions would be required to comply with the fiduciary duties of the Board of Directors of Talos under applicable Laws. Without limiting the generality of the foregoing, Talos acknowledges and agrees that any violation of any of the restrictions set forth in the preceding sentence by any Representative of Talos or any of its Subsidiaries, whether or not such Representative is purporting to act on behalf of Talos or any of its Subsidiaries, shall be deemed to constitute a breach of this Section 4.5(b)(i) by Talos.

(ii) For purposes of this Agreement,

(A) "**Talos Acquisition Proposal**" means any proposal, indication of interest or offer for (i) a merger, tender offer, recapitalization, reorganization, liquidation, dissolution, business combination, share exchange, arrangement or consolidation, or any similar transaction involving Talos or its Subsidiaries, (ii) a sale, lease, exchange, mortgage, pledge, transfer or other acquisition of fifteen percent (15%) or more of the assets of Talos and its Subsidiaries, taken as a whole, in one or a series of related transactions, or (iii) a purchase, tender offer or other acquisition (including by way of merger, consolidation, share exchange, arrangement, consolidation or otherwise) of beneficial ownership (the term "beneficial ownership" for purposes of this Agreement having the meaning assigned thereto in Section 13(d) of the Exchange Act and the rules and regulations thereunder) of securities representing fifteen percent (15%) or more of the voting power of Talos (including securities of Talos currently beneficially owned by such Person); provided, however, that the term "Talos Acquisition Proposal" shall not include the Merger or the other transactions contemplated by this Agreement and shall not include any disposition of NNR Assets; and

(B) "**Talos Superior Offer**" shall mean an unsolicited bona fide Talos Acquisition Proposal (with all references to "fifteen percent (15%)" in the definition of Talos Acquisition Proposal being treated as references to "one hundred (100%)" for these purposes) made by a third party that the Board of Directors of Talos determines in good faith, after consultation with its outside legal counsel and financial advisor, and after taking into account all financial, legal, regulatory, and other aspects of such Talos Acquisition Proposal (including the financing terms and the ability of such third party to finance such Talos Acquisition Proposal), (1) is more favorable from a financial point of view to the Talos Stockholders than as provided hereunder (including any changes to the terms of this Agreement proposed by Company in response to such Talos Superior Offer pursuant to and in accordance with Section 4.5(b)(iv) or otherwise), (2) is not subject to any financing condition (and if financing is required, such financing is then fully committed to the third party), (3) is reasonably capable of being completed on the terms proposed without unreasonable delay and (4) includes termination rights exercisable by Talos on terms no less favorable to Talos than the terms set forth in this Agreement, all from a third party capable of performing such terms.

(iii) Except as otherwise provided in Section 4.5(b)(iv), neither the Board of Directors of Talos nor any committee of the Board of Directors of Talos shall fail to make, withhold, withdraw, amend, change or publicly propose to withhold, withdraw, amend or change in a manner adverse to Company, the Talos Board Recommendation, knowingly make any public statement inconsistent with such recommendation, fail to recommend against acceptance of a tender offer within ten (10) Business Days after commencement, propose

publicly to approve, adopt or recommend any Talos Acquisition Proposal, make any public statement inconsistent with its recommendation, or fail to reaffirm the Talos Board Recommendation or fail to state publicly that the Merger and this Agreement are in the best interests of the Talos Stockholders, within five (5) Business Days after the Company requests in writing that such action be taken (any action described in this sentence being referred to as a "**Talos Change of Recommendation**").

(iv) Notwithstanding the foregoing, if at any time prior to the approval of the Talos Stockholder Proposals at the Talos Stockholder Meeting, Talos receives a Talos Acquisition Proposal (not obtained or made as a direct or indirect result of a breach of this Agreement) that the Board of Directors of Talos concludes in good faith, after consultation with its outside legal counsel and financial advisors, constitutes a Talos Superior Offer, and the Board of Directors of Talos determines in good faith (after consultation with outside legal counsel) that such Talos Change of Recommendation or entry into such definitive agreement would be required to comply with the fiduciary duties of the Board of Directors of Talos under applicable Laws, the Board of Directors of Talos may (i) effect a Talos Change of Recommendation, and/or (ii) enter into a definitive agreement with respect to such Talos Superior Offer and terminate this Agreement; provided, however that Talos shall not terminate this Agreement pursuant to the foregoing clause (ii), and any purported termination pursuant to the foregoing clause (ii) shall be void and of no force or effect, unless Talos has complied with this Section 4.5 and in advance of or concurrently with such termination Talos pays the fee set forth in Section 9.3; provided further, however, that such actions in the foregoing clauses (i) and (ii) may only be taken at a time that is after (A) the fifth (5th) Business Day following Company's receipt of written notice from Talos that the Board of Directors of Talos and/or a committee thereof is prepared to take such action (which notice will specify the material terms of the applicable Talos Acquisition Proposal), (B) at the end of such period, the Board of Directors of Talos and/or a committee thereof determines in good faith, after taking into account all amendments or revisions irrevocably committed to by Company and after consultation with Talos' outside legal counsel and financial advisors, that such Acquisition Proposal remains a Talos Superior Offer and (C) if requested by the Company during such five (5) Business Day period, Talos engages in good faith negotiations with the Company to amend this Agreement in such a manner that the offer that was determined to constitute a Talos Superior Offer no longer constitutes a Talos Superior Offer. During any such five (5) Business Day period, Company shall be entitled to deliver to Talos one or more counterproposals to such Acquisition Proposal.

(v) Nothing in this Section 4.5 shall prohibit Talos from complying with Rule 14e-2 or Rule 14d-9 promulgated under the Exchange Act with regard to a Talos Acquisition Proposal, respectively, or from the Board of Directors of Talos making any disclosure to the Talos Stockholders if, in the good faith judgment of the Board of Directors of Talos, after consultation with its outside legal counsel, that taking such action or making such disclosure would be required to comply with its fiduciary duties under applicable Laws.

(c) Both the Company and Talos shall notify the other no later than twenty-four (24) hours after receipt of any inquiries, discussions, negotiations, proposals or expressions of interest with respect to a Company Acquisition Proposal or Talos Acquisition Proposal, respectively, and any such notice shall be made orally and in writing and shall indicate in reasonable detail the terms and conditions of such proposal, inquiry or contact, including price, and the identity of the offeror. Both the Company and Talos shall keep the other informed, on a current basis, of the status and material developments (including any changes to the terms) of such Company Acquisition Proposal or Talos Acquisition Proposal, respectively.

(d) The Company and Talos shall, and shall cause each of their respective Subsidiaries and their respective Representatives to, immediately cease and cause to be terminated any and all existing activities, discussions or negotiations with any Person conducted heretofore with respect to, or that may reasonably be expected to lead to, a Company Acquisition Proposal or Talos Acquisition Proposal.

(e) Talos agrees not to release or permit the release of any Person from, or to waive or permit the waiver of any provision of, any "standstill" or similar agreement, including any "standstill" provision contained in any confidentiality agreement, to which Talos or any of its Subsidiaries is a party, and will use its commercially reasonable efforts to enforce or cause to be enforced each such agreement at the request of the Company.

Section 5. ADDITIONAL AGREEMENTS OF THE PARTIES

5.1 Disclosure Documents.

(a) As promptly as practicable after the date of this Agreement, (i) Talos shall prepare and file with the SEC a proxy statement relating to the Talos Stockholder Meeting to be held in connection with the Merger (together with any amendments thereof or supplements thereto, the "**Proxy Statement**") and (ii) Talos, in cooperation with the Company, shall prepare and file with the SEC a registration statement on Form S-4 (the "**Form S-4**"), in which the Proxy Statement shall be included as a part (the Proxy Statement and the Form S-4, collectively, the "**Registration Statement**"), in connection with the registration under the Securities Act of the shares of Talos Common Stock to be issued by virtue of the Merger (and registration of the Redeemable Convertible Notes and shares issuable on conversion of such notes). Each of Talos and the Company shall use their commercially reasonable efforts to cause the Registration Statement to become effective as promptly as practicable, and shall take all or any action required under any applicable federal and state securities and other Laws in connection with the issuance of shares of Talos Common Stock pursuant to the Merger. Each of Talos and the Company shall use commercially reasonable efforts to cause all documents that it is responsible for filing with the SEC in connection with the Contemplated Transactions to comply as to form and substance in all material respects with the applicable requirements of the Securities Act and the Exchange Act. The Company shall ensure that the Financial Statements will comply as to form in all material respects, prior to the filing of the Registration Statement, with the published rules and regulations of the SEC with respect thereto. Each of Talos, Merger Sub and the Company shall furnish all information concerning itself and their Subsidiaries, as applicable, to the other parties as the other parties may reasonably request in connection with such actions and the preparation of the Registration Statement and Proxy Statement. Talos shall use commercially reasonable efforts to cause the Proxy Statement to be mailed to its stockholders as promptly as practicable after the Registration Statement is declared effective by the SEC. If Talos, Merger Sub or the Company become aware of any event or information that, pursuant to the Securities Act or the Exchange Act, should be disclosed in an amendment or supplement to the Registration Statement or Proxy Statement, as the case may be, then such party, as the case may be, shall promptly inform the other parties thereof and shall cooperate with such other parties in filing such amendment or supplement with the SEC and, if appropriate, in mailing such amendment or supplement to the Talos stockholders.

(b) Notwithstanding anything to the contrary stated above, prior to filing and mailing, as applicable, the Registration Statement or Proxy Statement (or any amendment or supplement thereto) or responding to any comments of the SEC with respect thereto, Talos shall provide the Company a reasonable opportunity to review and comment on such document or response and shall discuss with the Company and include in such document or response, comments reasonably and promptly proposed by the Company. Talos will advise the Company of any acceleration request with respect to the Registration Statement on the day of such request and in any event no less than twenty-four hours before the anticipated date of effectiveness. Talos will advise the Company, promptly after Talos receives notice thereof, of the time when the Registration Statement has become effective or any supplement or amendment has been filed, of the issuance of any stop order or the suspension of the qualification of Talos Common Stock for offering or sale in any jurisdiction, of the initiation or threat of any proceeding for any such purpose, or of any request by the SEC for the amendment or supplement of the Registration Statement or for additional information.

5.2 Stockholder Approval.

(a) Company Stockholders' Written Consent.

(i) During the Pre-Closing Period, the Company shall take all action necessary in accordance with this Agreement, the DGCL, the Company Charter and the Company Bylaws to obtain, promptly after receiving written notice from Talos that the S-4 Registration Statement has been declared effective under the Securities Act, and in any event no later than twenty-four (24) hours after receiving such notice, the Company

Stockholder Written Consent executed by the Company Minimum Holders and sufficient for the Company Stockholder Approval in lieu of a meeting pursuant to Section 228 of the DGCL, for purposes of (i) adopting this Agreement and approving the Merger and all other transactions contemplated hereby, including the conversion of the Company Preferred Stock into Company Common Stock, (ii) acknowledging that such adoption and approval of the Merger and the conversion of the Company Preferred Stock into Company Common Stock given thereby is irrevocable and that such stockholder is aware it may have the right to demand appraisal for its shares pursuant to Section 262 of the DGCL, a copy of which was attached thereto, and that such stockholder has received and read a copy of Section 262 of the DGCL, and (iii) acknowledging that by its approval of the Merger it is not entitled to appraisal or dissenters' rights with respect to its shares in connection with the Merger and thereby waives any rights to receive payment of the fair value of its capital stock under the DGCL. Under no circumstances shall the Company assert that any other approval or consent is necessary by its stockholders to approve the Merger or the conversion of the Company Preferred Stock into Company Common Stock or this Agreement. The Company shall use its reasonable best efforts to obtain the Company Stockholder Written Consent executed by the Company Minimum Holders, sufficient for the Company Stockholder Approval and in compliance with all applicable Laws, and shall use reasonable best efforts to cause such Company Stockholder Written Consent not to be waived or revoked.

(ii) The Company agrees that, subject to Section 4.5: (i) the Company's Board of Directors shall unanimously recommend that the holders of Company Common Stock and Company Preferred Stock take action by written consent to approve the Merger and shall use commercially reasonable efforts to solicit such approval within the timeframe set forth in Section 5.2(a)(i) above, (ii) the statement or information provided to the holders of Company Common Stock and Company Preferred Stock shall include a statement to the effect that the Board of Directors of the Company recommends that the Company's stockholders take action by written consent to approve the Merger (the recommendation of the Company's Board of Directors that the Company's stockholders approve the Merger being referred to as the "**Company Board Recommendation**"); and (iii) the Company Board Recommendation shall not be withdrawn or modified in a manner adverse to Talos, and no resolution by the Board of Directors of the Company or any committee thereof to withdraw or modify the Company Board Recommendation in a manner adverse to Talos shall be adopted or proposed.

(iii) Subject to Section 4.5, the Company's obligation to solicit the consent of its stockholders to sign the Company Stockholders Written Consent in accordance with Section 5.2(a) shall not be limited or otherwise affected by the commencement, disclosure, announcement or submission of any Company Superior Offer or other Company Acquisition Proposal, or by any withdrawal or modification of the Company Board Recommendation.

(iv) In connection with the solicitation of the Company Stockholder Written Consent from its stockholders to adopt this Agreement and approve the Merger, the Company shall furnish to Talos, as promptly as possible, and in any event within twenty-four (24) hours after receiving notice from Talos that the Registration Statement shall have been declared effective under the Securities Act, a copy of such executed Company Stockholder Written Consent.

(b) Following the date hereof, the Company will prepare an information statement in form and substance reasonably acceptable to Talos (the "**Information Statement**") relating to this Agreement, the Merger and the other transactions contemplated hereby. The Company shall ensure that the information in the Information Statement (i) will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they are made, not misleading and (ii) complies with applicable Law; provided, however, that the Company makes no representation in this Section 5.3 with respect to any information provided by Talos for inclusion in the Information Statement. Talos shall ensure that the information provided by Talos for inclusion in the Information Statement (i) will not contain any untrue statement of material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they are made, not misleading, and (ii) complies with applicable Laws. The

Information Statement shall include the unanimous recommendation of the Board of Directors of the Company in favor of this Agreement and the Merger and the conclusion of the Board of Directors of the Company that the Merger is advisable and in the best interests of the Company Stockholders. Notwithstanding anything to the contrary stated above, prior to mailing the Information Statement (or any amendment or supplement thereto) the Company shall provide Talos a reasonable opportunity to review and comment on the Information Statement and shall discuss with Talos and include in the Information Statement, comments reasonably and promptly proposed by Talos.

(i) Promptly after the date hereof, and in no case later than ten (10) calendar days after obtaining the Company Stockholder Approval, the Company shall deliver (in any manner permitted by applicable Laws) to each Company Stockholder the Information Statement and notice of the Company Stockholders' approval and adoption of this Agreement and the consummation of the Contemplated Transactions, in compliance with Sections 228(e) and 262 of the DGCL. Thereafter, the Company shall provide to its stockholders who did not execute a Company Stockholders Written Consent applicable and appropriate notices regarding their appraisal or dissenters' rights under Section 262 of the DGCL, which notice shall comply with all applicable Laws.

(c) Talos Stockholder Meeting.

(i) Talos shall take all action necessary in accordance with applicable Laws and the Talos Charter and Talos Bylaws to call, give notice of, convene and hold a meeting of the Talos Stockholders (the "**Talos Stockholder Meeting**") to consider and vote on proposals to adopt this Agreement and the Merger and to approve the issuance of the shares of Talos Common Stock by virtue of the Merger and, if deemed necessary by the Parties, an amendment to the Talos Charter to effect the Reverse Stock Split (collectively, the "**Talos Stockholder Proposals**"). The Talos Stockholder Meeting shall be held (on a date selected by Talos in consultation with the Company) not later than forty-five (45) days after effective date of the Registration Statement. If on the scheduled date of the Talos Stockholder meeting Talos has not obtained the Talos Stockholder Approval, Talos shall have the right to adjourn, after consultation with the Company, or postpone the Talos Stockholder Meeting to a later date or dates, such later date or dates not to exceed thirty (30) days from the original date that the Talos Stockholder Meeting was scheduled for the approval of the Talos Stockholder Proposals.

(ii) Subject to the provisions of Section 4.5 hereof, the Board of Directors of Talos shall unanimously recommend that the Talos Stockholders approve the Talos Stockholder Proposals (the "**Talos Board Recommendation**") and Talos shall include such Talos Board Recommendation in the Proxy Statement.

(d) Talos shall use its commercially reasonable efforts to solicit from the Talos Stockholders proxies in favor of the Talos Stockholder Proposals and shall take all other action necessary or advisable to secure the Talos Stockholder Approval. Talos shall ensure that all proxies solicited in connection with the Talos Stockholder Meeting are solicited in material compliance with all applicable Laws. Talos, in its capacity as the sole stockholder of Merger Sub, shall approve the Merger.

5.3 Regulatory Approvals.

Each Party shall use commercially reasonable efforts to file or otherwise submit, as soon as practicable after the date of this Agreement, all applications, notices, reports and other documents reasonably required to be filed by such Party with or otherwise submitted by such Party to any Governmental Authority with respect to the Merger and the other Contemplated Transactions, and to submit promptly any additional information requested by any such Governmental Authority. Without limiting the generality of the foregoing, the Parties shall, promptly after the date of this Agreement, prepare and file any notification or other document required to be filed in connection with the Merger under any applicable foreign Law relating to antitrust or competition matters. The Company and Talos shall respond as promptly as is practicable to respond in compliance with: (i) any inquiries or requests received from the Federal Trade Commission or the Department of Justice for information or

documentation; and (ii) any inquiries or requests received from any state attorney general, foreign antitrust or competition authority or other Governmental Authority in connection with antitrust or competition matters.

5.4 Company Stock Options and Company Warrants.

(a) At the Effective Time, (i) each Company Stock Option that is outstanding and unexercised immediately prior to the Effective Time, whether or not vested, shall be converted into and become an option to purchase Talos Common Stock, and Talos shall assume each such Company Stock Option in accordance with its terms and the Company Stock Option Plans, if applicable, and all rights with respect to Company Common Stock shall thereupon be converted into rights with respect to Talos Common Stock. Accordingly, from and after the Effective Time: (i) each Company Stock Option may be exercised solely for shares of Talos Common Stock; (ii) the number of shares of Talos Common Stock subject to each Company Stock Option shall be determined by multiplying (A) the number of shares of Company Common Stock that were subject to such Company Stock Option, as in effect immediately prior to the Effective Time by (B) the Exchange Ratio and rounding the resulting number down to the nearest whole number of shares of Talos Common Stock; (iii) the per share exercise price for the Talos Common Stock issuable upon exercise of each Company Stock Option shall be determined by dividing (A) the per share exercise price of Company Common Stock subject to such Company Stock Option, as in effect immediately prior to the Effective Time, by (B) the Exchange Ratio and rounding the resulting exercise price up to the nearest whole cent; and (iv) any restriction on the exercise of any Company Stock Option shall continue in full force and effect and the term, exercisability, vesting schedule and other provisions of such Company Stock Option shall otherwise remain unchanged; *provided*, *however*, that: (A) to the extent provided under the terms of a Company Stock Option, such Company Stock Option shall, in accordance with its terms, be subject to further adjustment as appropriate to reflect any stock split, division or subdivision of shares, stock dividend, reverse stock split, consolidation of shares, reclassification, recapitalization or other similar transaction with respect to Talos Common Stock subsequent to the Effective Time; and (B) Talos' Board of Directors or a committee thereof shall succeed to the authority and responsibility of Company's Board of Directors or any committee thereof with respect to each Company Stock assumed by Talos. Notwithstanding anything to the contrary in this Section 5.4(a), the conversion of each Company Stock Option (regardless of whether such option qualifies as an "incentive stock option" within the meaning of Section 422 of the Code) into an option to purchase shares of Talos Common Stock shall be made in a manner consistent with Treasury Regulation Section 1.424-1, such that the conversion of a Company Stock Option shall not constitute a "modification" of such Company Stock Option for purposes of Section 409A or Section 424 of the Code.

(b) At the Effective Time, each Company Warrant that is outstanding and unexercised immediately prior to the Effective Time, whether or not vested, shall be converted into and become a warrant to purchase Talos Common Stock, and Talos shall assume each such Company Warrant in accordance with its terms (as in effect as of the date of this Agreement). All rights with respect to Company Common Stock under Company Warrants assumed by Talos shall thereupon be converted into rights with respect to Talos Common Stock. Accordingly, from and after the Effective Time: (i) each Company Warrant assumed by Talos may be exercised solely for shares of Talos Common Stock; (ii) the number of shares of Talos Common Stock subject to each Company Warrant assumed by Talos shall be determined by multiplying (A) the number of shares of Company Common Stock that were subject to such Company Warrant, as in effect immediately prior to the Effective Time by (B) the Exchange Ratio and rounding the resulting number down to the nearest whole number of shares of Talos Common Stock; (iii) the per share exercise price for the Talos Common Stock issuable upon exercise of each Company Warrant assumed by Talos shall be determined by dividing (A) the per share exercise price of Company Common Stock subject to such Company Warrant, as in effect immediately prior to the Effective Time, by (B) the Exchange Ratio and rounding the resulting exercise price up to the nearest whole cent; and (iv) any restriction on the exercise of any Company Warrant assumed by Talos shall continue in full force and effect and the term, exercisability, vesting schedule and other provisions of such Company Warrant shall otherwise remain unchanged; *provided*, *however*, that to the extent provided under the terms of a Company Warrant, such Company Warrant assumed by Talos in accordance with this Section 5.4(b) shall, in accordance

with its terms, be subject to further adjustment as appropriate to reflect any stock split, division or subdivision of shares, stock dividend, reverse stock split, consolidation of shares, reclassification, recapitalization or other similar transaction with respect to Talos Common Stock subsequent to the Effective Time.

(c) Talos shall file with the SEC, promptly following the Effective Time, a registration statement on Form S-8, if available, for use by Talos, relating to the shares of Talos Common Stock issuable with respect to Company Stock Options issued under the Company Stock Option Plans assumed by Talos in accordance with Section 5.4(a).

(d) Prior to the Effective Time, the Company shall take all actions that may be necessary (under the Company Stock Option Plan, the Company Warrants and otherwise) to effectuate the provisions of this Section 5.4 and to ensure that, from and after the Effective Time, holders of Company Stock Options and Company Warrants have no rights with respect thereto other than those specifically provided in this Section 5.4.

5.5 Indemnification of Officers and Directors.

(a) Talos and Merger Sub agree that all rights to indemnification, exculpation or advancement of expenses now existing in favor of, and all limitations on the personal liability of each present and former director or officer, of Talos or the Company and their respective Subsidiaries (the "**D&O Parties**") provided for in the respective organizational documents in effect as of the date hereof, shall continue to be honored and in full force and effect for a period of six (6) years after the Effective Time; provided, however, that all rights to indemnification in respect of any proceeding or claims pending, asserted or made within such period shall continue until the final disposition of such proceeding or claim. The certificate of incorporation of the Surviving Corporation will contain provisions with respect to indemnification, exculpation from liability and advancement of expenses that are at least as favorable as those currently in the Talos Charter and Talos Bylaws and the Company Charter and Company Bylaws, as applicable, and during such six (6) year period following the Effective Time, Talos shall not and shall cause the Surviving Corporation not to amend, repeal or otherwise modify such provisions in any manner that would materially and adversely affect the rights thereunder of any D&O Party in respect of actions or omissions occurring at or prior to the Effective Time, unless such modification is required by applicable Laws. Prior to the Closing, each of the Company and Talos shall purchase a six-year "tail" policy under its own existing directors' and officers' liability insurance policy, with an effective date as of the Closing (provided that either such party may substitute therefor policies of at least the same coverage containing terms and conditions that are not less favorable in any material respect); provided, however, that in no event shall either such party be required to expend pursuant to this Section 5.5(a) more than an amount equal to 200% of the respective current annual premiums paid by such party for such insurance; provided, further, that during the term of the respective "tail" policies, neither Talos nor the Surviving Corporation shall take any action following the Closing to cause their respective "tail" policies to be cancelled or any provision therein to be amended or waived in any manner that would adversely affect in any material respect the rights of their former and current officers and directors.

(b) The provisions of this Section 5.5 are intended to be for the benefit of, and shall be enforceable by, each of the Persons indemnified hereby, and his or her heirs and Representatives, and may not be amended, modified, altered or repealed after the Effective Time without the written consent of any such Person affected by such amendment, modification alteration or repeal. The provisions in this Section 5.5 are intended to be in addition to the rights otherwise available to the D&O Parties by Laws, charters, bylaws or agreements.

(c) If Talos or the Surviving Corporation or any of the successors or assigns of Talos or the Surviving Corporation (i) consolidates with or merges into any other Person and shall not be the continuing or surviving corporation or entity of such consolidation or merger or (ii) transfers or conveys all or substantially all of its properties and assets to any Person, then, and in each such case, to the extent necessary, proper provision shall be made so that the successors and assigns of Talos or the Surviving Corporation, as the case may be, shall assume the obligations and cause the relevant insurance benefits to be provided to the D&O Parties as set forth in this Section 5.5. The agreements and covenants contained herein shall not be deemed to be exclusive of any other rights to which any D&O Party is entitled, whether pursuant to applicable Laws, contract or otherwise.

5.6 Additional Agreements.

(a) Subject to Section 5.6(b), the Parties shall use commercially reasonable efforts to cause to be taken all actions necessary to consummate the Merger and make effective the other Contemplated Transactions. Without limiting the generality of the foregoing, but subject to Section 5.6(b), each Party to this Agreement: (i) shall make all filings and other submissions (if any) and give all notices (if any) required to be made and given by such Party in connection with the Merger and the other Contemplated Transactions; (ii) shall use commercially reasonable efforts to obtain each consent (if any) reasonably required to be obtained (pursuant to any applicable Law or Contract, or otherwise) by such Party in connection with the Merger or any of the other Contemplated Transactions or for such Contract to remain in full force and effect; (iii) shall use commercially reasonable efforts to lift any injunction prohibiting, or any other legal bar to, the Merger or any of the other Contemplated Transactions; and (iv) shall use commercially reasonable efforts to satisfy the conditions precedent to the consummation of this Agreement.

(b) Notwithstanding anything to the contrary contained in this Agreement, no Party shall have any obligation under this Agreement: (i) to dispose of or transfer or cause any of its Subsidiaries to dispose of or transfer any assets; (ii) to discontinue or cause any of its Subsidiaries to discontinue offering any product or service; (iii) to license or otherwise make available, or cause any of its Subsidiaries to license or otherwise make available to any Person any Intellectual Property; (iv) to hold separate or cause any of its Subsidiaries to hold separate any assets or operations (either before or after the Closing Date); (v) to make or cause any of its Subsidiaries to make any commitment (to any Governmental Authority or otherwise) regarding its future operations; or (vi) to contest any Legal Proceeding or any order, writ, injunction or decree relating to the Merger or any of the other Contemplated Transactions if such Party determines in good faith that contesting such Legal Proceeding or order, writ, injunction or decree might not be advisable.

5.7 Disclosure.

Without limiting any of either Party's obligations under the Confidentiality Agreement, each Party shall not, and shall not permit any of its Subsidiaries or any Representative of such Party to, issue any press release or make any disclosure (to any customers or employees of such Party, to the public or otherwise) regarding the Merger or any of the other Contemplated Transactions unless: (a) the other Party shall have approved such press release or disclosure in writing; or (b) such Party shall have determined in good faith, upon the advice of outside legal counsel, that such disclosure is required by applicable Laws and, to the extent practicable, before such press release or disclosure is issued or made, such Party advises the other Party of, and consults with the other Party regarding, the text of such press release or disclosure; *provided*, *however*, that each of the Company and Talos may make any public statement in response to specific questions by the press, analysts, investors or those attending industry conferences or financial analyst conference calls, so long as any such statements are consistent in scope and substance with previous press releases, public disclosures or public statements made by the Company or Talos in compliance with this Section 5.7.

5.8 Listing.

At or prior to the Effective Time, Talos shall use its commercially reasonable efforts to cause the shares of Talos Common Stock being issued in the Merger including the shares of Talos Common Stock issuable in connection with the assumption of Company Common Stock Options and Company Stand-Alone Options to be approved for listing (subject to notice of issuance) on the NASDAQ Global Select Market (or such other NASDAQ market on which shares of Talos Common Stock are then listed) at or prior to the Effective Time.

5.9 Tax Matters.

(a) Talos, Merger Sub and the Company shall use their respective reasonable best efforts to cause the Merger to qualify, and agree not to, and not to permit or cause any affiliate or any subsidiary to, take any actions or cause any action to be taken that would reasonably be expected to prevent the Merger from qualifying, as a "reorganization" under Section 368(a) of the Code.

(b) This Agreement is intended to constitute, and the parties hereto hereby adopt this Agreement as, a "plan of reorganization" within the meaning of Treasury Regulation Sections 1.368-2(g) and 1.368-3(a). Talos, Merger Sub and the Company shall treat, and shall not take any tax reporting position inconsistent with the treatment of, the Merger as a "reorganization" within the meaning of Section 368(a) of the Code for U.S. federal, state and other relevant Tax purposes, unless otherwise required pursuant to a "determination" within the meaning of Section 1313(a) of the Code.

(c) The parties intend and agree that the Merger Sub is being formed solely to participate in the Contemplated Transactions and will not carry on any business or incur any liabilities (other than in connection with the Contemplated Transactions).

(d) Talos shall treat the distribution of the beneficial interest in the Trust that is part of the Pre-Closing Dividend, for U.S. federal, state and other relevant Tax purposes, as a distribution of the NNR Assets and the NNR Restricted Cash Account to its stockholders and a subsequent contribution by the stockholders of the NNR Assets and the NNR Restricted Cash Account to the Trust. Talos shall comply with all Tax withholding and reporting requirements as provided by any applicable Tax Law with respect to payments of the Pre-Closing Dividend and with respect to the adjustment of the number of shares of Talos Common Stock underlying each outstanding Talos Stock Option and the exercise price thereof to take into account the Pre-Closing Dividend provided for in Section 5.17.

5.10 Cooperation.

Each Party shall cooperate reasonably with the other Party and shall provide the other Party with such assistance as may be reasonably requested for the purpose of facilitating the performance by each Party of their obligations under this Agreement and to enable the combined entity to continue to meet its obligations following the Closing.

5.11 Directors.

Subject to any legal requirement, at and immediately after the Effective Time, the initial size of the Board of Directors of Talos shall be seven (7) and the initial directors to serve on the Board of Directors of Talos shall be Harold E. Selick, Ph.D., who shall be the Chairman, and Nassim Usman, Ph.D., Jeff Himawan, Ph.D., Augustine Lawlor, John P. Richard, Errol B. De Souza, Ph.D. and Dr. Stephen A. Hill, each until their respective successors are duly elected or appointed and qualified or their earlier death, resignation or removal. At and immediately after the Effective Time, the officers of Talos and the director classification shall be specified in Schedule 5.11.

5.12 Stockholder Litigation.

Until the earlier of the termination of this Agreement in accordance with its terms or the Effective Time, Talos, on the one hand, and the Company, on the other hand, shall (a) promptly advise the other Party in writing of any stockholder litigation against it or its directors relating to this Agreement, the Merger, or the Contemplated Transactions and shall keep the other Party fully informed regarding such stockholder litigation and (b) give the other Party the opportunity to participate in the defense or settlement of any stockholder litigation relating to this Agreement or any of the Contemplated Transactions, and shall not settle any such litigation without the other Party's written consent, which will not be unreasonably withheld, conditioned or delayed.

5.13 Section 16 Matters

Prior to the Effective Time, Talos shall take all such steps as may be required to cause any acquisitions of Talos Common Stock and any options to purchase Talos Common Stock resulting from the Merger and the other transactions contemplated by this Agreement, by each individual who is reasonably expected to become subject to the reporting requirements of Section 16(a) of the Exchange Act with respect to Talos, to be exempt under Rule 16b-3 promulgated under the Exchange Act.

5.14 Securityholder List.

At least two (2) Business Days prior to the Effective Time, the Company shall deliver to Talos a true, correct and complete list, as of that date, of all issued and outstanding shares of the capital stock of the Company on a holder-by-holder basis.

5.15 Reverse Stock Split.

Talos shall submit to the Talos Stockholders at the Talos Stockholder Meeting a proposal to approve and adopt an amendment to the Talos Charter to authorize the Board of Directors of Talos to effect a reverse stock split of all outstanding shares of Talos Common Stock at a reverse stock split ratio in the range mutually agreed to by the Company and Talos (the "**Reverse Stock Split**"), and shall take such other actions as shall be reasonably necessary to effectuate the Reverse Stock Split.

5.16 Preferred Stock.

The Company shall take all action required to effect the conversion of the Company Preferred Stock into Company Common Stock pursuant to the Company Stockholder Written Consent prior to the Closing Date.

5.17 Pre-Closing Dividend.

Promptly following the final determination of the Talos Cash Balance as of the Talos Cash Determination Date by Talos in accordance with Section 5.18, and in any event, prior to the Closing, the Talos Board intends to, subject to applicable Law and the Talos Charter and Talos Bylaws, declare a special dividend (the "**Pre-Closing Dividend**") of the Redeemable Convertible Notes, the Pre-Closing Cash Dividend Amount, and the beneficial interests in the Trust as further described on Schedule B, to Talos stockholders, and set the record date and payment date for such Pre-Closing Dividend in its sole discretion; provided that the record date and payment date for such Pre-Closing Dividend shall be at least one Business Day prior to the Closing Date; and provided further that the beneficial interests in the Trust shall not be part of the Pre-Closing Dividend if, prior to the Talos Cash Determination Date, Talos sells or otherwise disposes of the NNR Assets.

In connection with the payment of the Pre-Closing Dividend, the Talos Board shall adjust the number of shares of Talos Common Stock underlying each outstanding Talos Stock Option and the exercise price thereof to take account of the Pre-Closing Dividend in accordance with the adjustments allowed for "corporate transactions" as set forth in Sections 422, 424 and 409A of the Code and the regulations thereunder.

5.18 Determination of Talos Cash Balance.

(a) Not less than fifteen (15) calendar days prior to the anticipated date for Closing (the "**Anticipated Closing Date**"), Talos will deliver to the Company a statement setting forth, in reasonable detail, Talos's calculation of the Talos Cash Balance (the "**Talos Net Cash Calculation**" and the date of delivery of such schedule, the "**Talos Cash Determination Date**"), it being agreed that the Talos Net Cash Calculation shall take into account liabilities reasonably anticipated to be incurred by Talos prior to and as of the Closing. Within two (2) Business Days following the Talos Cash Determination Date, Talos will deliver to Company a certificate (the "**Talos Net Cash Certificate**") as to the amount of the Talos Net Cash Calculation as of such Talos Cash Determination Date prepared by Talos and executed by the chief executive officer of Talos. Talos will make the work papers and back-up materials used in preparing the Talos Net Cash Calculation and the Talos Net Cash Certificate, and the personnel of Talos that participated in preparing the Talos Net Cash Calculation and the Talos Net Cash Certificate, available to the Company and, if requested by the Company, its accountants and counsel at reasonable times and upon reasonable notice.

(b) Within three (3) calendar days after Talos delivers either (or each) of the Talos Net Cash Calculation or the Talos Net Cash Certificate (a "**Talos Cash Response Date**"), the Company will have the right to dispute any part of the Talos Net Cash Calculation or the Talos Net Cash Certificate by delivering a written notice to that effect to Talos (a "**Talos Cash Dispute Notice**").

(c) If on or prior to any Talos Cash Response Date, (i) the Company notifies Talos in writing that it has no objections to the Talos Net Cash Calculation or the Talos Net Cash Certificate, as applicable, or (ii) the Company fails to deliver a Talos Cash Dispute Notice as provided in Section 5.18(b), then the Talos Net Cash Calculation as set forth in the Talos Net Cash Certificate will be deemed to have been finally determined for purposes of this Agreement and to represent the Talos Cash Balance at the Talos Cash Determination Date for purposes of this Agreement, and Talos will not be required to determine the Talos Cash Balance again provided that the Closing Date occurs no later than five (5) Business Days after the Anticipated Closing Date unless additional material liabilities have accrued between the Anticipated Closing Date and the Closing Date, in which case Talos will be required to determine the Talos Cash Balance again prior to the Closing Date taking into account such additional material liabilities.

(d) If the Company delivers a Talos Cash Dispute Notice on or prior to the applicable Talos Cash Response Date, then Representatives of Talos and the Company will promptly meet and attempt in good faith to resolve the disputed item(s) and negotiate an agreed-upon determination of the Talos Cash Balance, which agreed upon amount will be deemed to have been finally determined for purposes of this Agreement and to represent the Talos Cash Balance at the Talos Cash Determination Date for purposes of this Agreement.

(e) If Representatives of Talos and the Company are unable to negotiate an agreed-upon determination of the Talos Cash Balance at the Talos Cash Determination Date pursuant to Section 5.18(d) within three (3) calendar days after delivery of the Talos Cash Dispute Notice (or such other period as Talos and Company may mutually agree upon), then an independent auditor of recognized national standing as may be agreed by Talos and the Company (the "**Reviewing Accounting Firm**") will be engaged to resolve any remaining disagreements as to the Talos Net Cash Calculation. Talos will promptly deliver to the Reviewing Accounting Firm the work papers and back-up materials used in preparing the Talos Net Cash Calculation or the Talos Net Cash Certificate and Talos and the Company will use their best efforts to cause the Reviewing Accounting Firm to make its determination within ten (10) calendar days of accepting its selection. The Company and Talos will be afforded the opportunity to present to the Reviewing Accounting Firm any material related to the unresolved disputes and to discuss the issues with the Reviewing Accounting Firm; provided, however, that no such presentation or discussion will occur without the presence of a Representative of each of the Company and Talos. The determination of the Reviewing Accounting Firm will be limited to the disagreements submitted to the Reviewing Accounting Firm. The determination of the amount of the Talos Cash Balance made by the Reviewing Accounting Firm will be in writing delivered to Talos and the Company, will be final and binding on the Company and Talos and will be deemed to have been finally determined for purposes of this Agreement and to represent the Talos Cash Balance at the Talos Cash Determination Date for purposes of this Agreement. The fees and expenses of the Reviewing Accounting Firm will be allocated between Talos and the Company in the same proportion that the disputed amount of Talos Cash Balance that was unsuccessfully disputed by such Party (as finally determined by the Reviewing Accounting Firm) bears to the total disputed amount of the Talos Cash Balance amount. If this Section 5.18(e) applies as to the determination of the Talos Cash Balance at the Talos Cash Determination Date, upon resolution of the matter in accordance with this Section 5.18(e), the Parties will not be required to determine the Talos Cash Balance again even though the Closing Date may occur later than the Anticipated Closing Date; provided, however, that if the Closing Date is more than fifteen (15) Business Days after the Anticipated Closing Date, the Reviewing Accounting Firm shall be instructed to make such reasonable adjustments as required to reflect any such delay.

5.19 Determination of Company Cash Balance.

(a) Not less than fifteen (15) calendar days prior to the Anticipated Closing Date, the Company will deliver to Talos a statement setting forth, in reasonable detail, the Company's calculation of the Company

Cash Balance (the "**Company Net Cash Calculation**" and the date of delivery of such schedule, the "**Company Cash Determination Date**"), it being agreed that the Company Net Cash Calculation shall take into account liabilities reasonably anticipated to be incurred by the Company prior to and as of the Closing. Within two (2) Business Days following the Company Cash Determination Date, the Company will deliver to Talos a certificate (the "**Company Net Cash Certificate**") as to the amount of the Company Net Cash Calculation as of such Company Cash Determination Date prepared by the Company and executed by the chief executive officer of the Company. The Company will make the work papers and back-up materials used in preparing the Company Net Cash Calculation and the Company Net Cash Certificate, and the personnel of the Company that participated in preparing the Company Net Cash Calculation and the Company Net Cash Certificate, available to Talos and, if requested by Talos, its accountants and counsel at reasonable times and upon reasonable notice.

(b) Within three (3) calendar days after the Company delivers either (or each) of the Company Net Cash Calculation or the Company Net Cash Certificate (a "**Company Cash Response Date**"), Talos will have the right to dispute any part of the Company Net Cash Calculation or the Company Net Cash Certificate by delivering a written notice to that effect to the Company (a "**Company Cash Dispute Notice**").

(c) If on or prior to any Company Cash Response Date, (i) Talos notifies the Company in writing that it has no objections to the Company Net Cash Calculation or the Company Net Cash Certificate, as applicable, or (ii) Talos fails to deliver a Company Cash Dispute Notice as provided in Section 5.19(b), then the Company Net Cash Calculation as set forth in the Company Net Cash Certificate will be deemed to have been finally determined for purposes of this Agreement and to represent the Company Cash Balance at the Company Cash Determination Date for purposes of this Agreement, and the Company will not be required to determine the Company Cash Balance again provided that the Closing Date occurs no later than five (5) Business Days after the Anticipated Closing Date unless additional material liabilities have accrued between the Anticipated Closing Date and the Closing Date, in which case the Company will be required to determine the Company Cash Balance again prior to the Closing Date taking into account such additional material liabilities.

(d) If Talos delivers a Company Cash Dispute Notice on or prior to the applicable Company Cash Response Date, then Representatives of the Company and Talos will promptly meet and attempt in good faith to resolve the disputed item(s) and negotiate an agreed-upon determination of the Company Cash Balance, which agreed upon amount will be deemed to have been finally determined for purposes of this Agreement and to represent the Company Cash Balance at the Company Cash Determination Date for purposes of this Agreement.

(e) If Representatives of the Company and Talos are unable to negotiate an agreed-upon determination of the Company Cash Balance at the Company Cash Determination Date pursuant to Section 5.19(d) within three (3) calendar days after delivery of the Company Cash Dispute Notice (or such other period as the Company and Talos may mutually agree upon), then the Reviewing Accounting Firm will be engaged to resolve any remaining disagreements as to the Company Net Cash Calculation. The Company will promptly deliver to the Reviewing Accounting Firm the work papers and back-up materials used in preparing the Company Net Cash Calculation or the Company Net Cash Certificate and the Company and Talos will use their best efforts to cause the Reviewing Accounting Firm to make its determination within ten (10) calendar days of accepting its selection. Talos and the Company will be afforded the opportunity to present to the Reviewing Accounting Firm any material related to the unresolved disputes and to discuss the issues with the Reviewing Accounting Firm; provided, however, that no such presentation or discussion will occur without the presence of a Representative of each of Talos and the Company. The determination of the Reviewing Accounting Firm will be limited to the disagreements submitted to the Reviewing Accounting Firm. The determination of the amount of the Company Cash Balance made by the Reviewing Accounting Firm will be in writing delivered to the Company and Talos, will be final and binding on Talos and the Company and will be deemed to have been finally determined for purposes of this Agreement and to represent the Company Cash Balance at the Company Cash Determination Date for purposes of this Agreement. The fees and expenses of the Reviewing Accounting Firm will be allocated between the Company and Talos in the same proportion that the disputed amount of Company Cash Balance that was unsuccessfully disputed by such Party (as finally determined by the Reviewing Accounting Firm) bears to the total

disputed amount of the Company Cash Balance amount. If this Section 5.19(e) applies as to the determination of the Company Cash Balance at the Company Cash Determination Date, upon resolution of the matter in accordance with this Section 5.19(e), the Parties will not be required to determine the Company Cash Balance again even though the Closing Date may occur later than the Anticipated Closing Date; provided, however, that if the Closing Date is more than fifteen (15) Business Days after the Anticipated Closing Date, the Reviewing Accounting Firm shall be instructed to make such reasonable adjustments as required to reflect any such delay.

5.20 Redeemable Convertible Notes Principal.

Prior to the payment of the Pre-Closing Dividend, Talos shall cause to be deposited with the Escrow Agent an amount equal to $37,000,000 representing the aggregate principal amount of the Redeemable Convertible Notes to be issued as part of the Pre-Closing Dividend, to be held in accordance with the escrow agreement in the form attached hereto as Exhibit H (the "Escrow Agreement").

5.21 NNR Restricted Cash Account.

If and to the extent the sale of the NNR Assets is not consummated by Talos prior to the Talos Cash Determination Date, unless the Board otherwise determines prior to the Talos Cash Determination Date to not transfer the NNR Assets to the Trust, Talos shall establish a restricted cash account as part of the Trust (the "**NNR Restricted Cash Account**") initially containing at least $1.5 million and maintain such account for up to two years from the date of Closing, which funds shall be designated exclusively for the payment of costs necessary to maintain and prosecute the intellectual property rights associated with the NNR Assets or in connection with the sale or other disposition of the NNR Assets in accordance with Schedule B.

Section 6. CONDITIONS PRECEDENT TO OBLIGATIONS OF EACH PARTY

The obligations of each Party to effect the Merger and otherwise consummate the transactions to be consummated at the Closing are subject to the satisfaction or, to the extent permitted by applicable Law, the written waiver by each of the Parties, at or prior to the Closing, of each of the following conditions:

6.1 No Restraints.

No temporary restraining order, preliminary or permanent injunction or other order preventing the consummation of the Merger and/or the Pre-Closing Dividend shall have been issued by any court of competent jurisdiction or other Governmental Authority and remain in effect, and there shall not be any Law which has the effect of making the consummation of the Merger and/or the Pre-Closing Dividend illegal.

6.2 Stockholder Approval.

This Agreement, the Merger and the conversion of the Company Preferred Stock into Company Common Stock shall have been duly adopted and approved by the Company Stockholder Approval, and the Talos Stockholder Proposals shall have been duly approved by the Talos Stockholder Approval.

6.3 No Governmental Proceedings Relating to Contemplated Transactions or Right to Operate Business.

There shall not be any Legal Proceeding pending, or overtly threatened in writing, by an official of a Governmental Authority in which such Governmental Authority indicates that it intends to conduct any Legal Proceeding or taking any other action: (a) challenging or seeking to restrain or prohibit the consummation of the Merger and/or the Pre-Closing Dividend; (b) relating to the Merger and/or the Pre-Closing Dividend and seeking to obtain from Talos, Merger Sub or the Company any damages or other relief that may be material to Talos or the Company; (c) seeking to prohibit or limit in any material and adverse respect a Party's ability to vote, transfer, receive dividends with respect to or otherwise exercise ownership rights with respect to the stock of Talos; or (d) that would materially adversely affect the right or ability of Talos or the Company to own the assets or operate the business of Talos or the Company.

6.4 Effective Registration Statement and Proxy Statement.

The Registration Statement shall have become effective and no stop order suspending the effectiveness of the Registration Statement shall have been issued and no proceedings for that purpose shall have been initiated or threatened by the SEC or any other Governmental Authority and no similar proceeding in respect of the Proxy Statement shall have been initiated or threatened by the SEC or any Governmental Authority.

6.5 Pre-Closing Dividend.

The Pre-Closing Dividend shall have been declared and paid.

Section 7. ADDITIONAL CONDITIONS PRECEDENT TO OBLIGATIONS OF TALOS AND MERGER SUB

The obligations of Talos and Merger Sub to effect the Merger and otherwise consummate the transactions to be consummated at the Closing are subject to the satisfaction or the written waiver by Talos, at or prior to the Closing, of each of the following conditions:

7.1 Accuracy of Representations.

The representations and warranties of the Company contained in this Agreement (a) shall have been true and correct as of the date of this Agreement and (b) shall be true and correct on and as of the Closing Date with the same force and effect as if made on the Closing Date, except in each case where the failure to be true and correct has not had, and would not reasonably be expected to have, a Company Material Adverse Effect, provided, in each case that those representations and warranties which address matters only as of a particular date shall have been true and correct as of such particular date, except in each case where the failure to be true and correct has not had, and would not reasonably be expected to have, a Company Material Adverse Effect; and provided, further, that for purposes of determining the accuracy of such representations and warranties, any update of or modification to the Company Disclosure Schedule made or purported to have been made after the date of this Agreement shall be disregarded.

7.2 Performance of Covenants.

Each of the covenants and obligations in this Agreement that the Company is required to comply with or to perform at or prior to the Closing shall have been complied with and performed by the Company in all material respects.

7.3 Consents.

Any Permit or other consent required to be obtained by the Company under any applicable antitrust or competition Law or regulation or other Law shall have been obtained and shall remain in full force and effect.

7.4 Officers' Certificate.

Talos shall have received a certificate executed by the Chief Executive Officer and Chief Financial Officer of the Company confirming that the conditions set forth in Sections 7.1, 7.2, and 7.3 have been duly satisfied.

7.5 No Company Material Adverse Effect.

Since the date of this Agreement, there shall not have occurred any Company Material Adverse Effect that is continuing.

7.6 Preferred Stock Conversion.

The Company Preferred Stock shall have been converted into Company Common Stock.

7.7 Determination of Company Cash Balance.

The Company and Talos shall have agreed in writing upon the Company Net Cash Calculation, or the Reviewing Accounting Firm shall have delivered its report with respect to the Company Net Cash Calculation, in each case pursuant to Section 5.19 and such Company Net Cash Calculation shall be at least equal to the Company Minimum Cash Amount.

7.8 Company Stockholder Approval.

Talos shall have received the Company Stockholder Written Consent from Company Stockholders representing (i) at least 90% of the outstanding shares of Company Capital Stock voting together as a single class and on an as-converted basis and (ii) holders of at least 66 2/3% of the outstanding shares of Company Preferred Stock voting together as a single class, on an as-converted basis.

7.9 Lock-up Agreements.

Lock-up Agreements signed by the Company's executive officers, directors and Company Minimum Holders shall have been delivered to Talos and shall remain in full force and effect at the Closing.

Section 8. ADDITIONAL CONDITIONS PRECEDENT TO OBLIGATION OF THE COMPANY

The obligations of the Company to effect the Merger and otherwise consummate the transactions to be consummated at the Closing are subject to the satisfaction or the written waiver by the Company, at or prior to the Closing, of each of the following conditions:

8.1 Accuracy of Representations.

The representations and warranties of Talos contained in this Agreement (a) shall have been true and correct as of the date of this Agreement and (b) shall be true and correct on and as of the Closing Date with the same force and effect as if made on the Closing Date, except in each case where the failure to be true and correct has not had, and would not reasonably be expected to have, a Talos Material Adverse Effect, provided, in each case that those representations and warranties which address matters only as of a particular date shall have been true and correct as of such particular date, except in each case where the failure to be true and correct has not had, and would not reasonably be expected to have, a Talos Material Adverse Effect; and provided, further, that for purposes of determining the accuracy of such representations and warranties, any update of or modification to the Talos Disclosure Schedule made or purported to have been made after the date of this Agreement shall be disregarded.

8.2 Performance of Covenants.

All of the covenants and obligations in this Agreement that Talos or Merger Sub is required to comply with or to perform at or prior to the Closing shall have been complied with and performed in all material respects.

8.3 Consents.

Any Permit or other consent required to be obtained by Talos under any applicable antitrust or competition Law or regulation or other Law shall have been obtained and shall remain in full force and effect.

8.4 Officers' Certificate.

The Company shall have received a certificate executed by the Chief Executive Officer of Talos confirming that the conditions set forth in Sections 8.1, 8.2 and 8.3 have been duly satisfied.

8.5 No Talos Material Adverse Effect.

Since the date of this Agreement, there shall not have occurred any Talos Material Adverse Effect that is continuing.

8.6 Determination of Talos Cash Balance.

Talos and the Company shall have agreed in writing upon the Talos Net Cash Calculation, or the Reviewing Accounting Firm shall have delivered its report with respect to the Talos Net Cash Calculation, in each case pursuant to Section 5.18 and such Talos Net Cash Calculation shall be at least equal to the Minimum Talos Cash Balance.

8.7 Listing.

The shares of Talos Common Stock to be issued in the Merger pursuant to this Agreement shall have been approved for listing (subject to official notice of issuance) on the NASDAQ Global Select Market or such other NASDAQ market on which shares of Talos Common Stock are then listed.

Section 9. TERMINATION

9.1 Termination.

This Agreement may be terminated prior to the Effective Time (whether before or after adoption of this Agreement by the Company's stockholders and whether before or after approval of the Merger and issuance of Talos Common Stock in the Merger, unless otherwise specified below):

(a) by mutual written consent of Talos and the Company duly authorized by the Boards of Directors of Talos and the Company;

(b) by either Talos or the Company if the Merger shall not have been consummated by July 31, 2015; *provided*, *however*, that the right to terminate this Agreement under this Section 9.1(b) shall not be available to any Party whose action or failure to act has been a principal cause of the failure of the Merger to occur on or before such date and such action or failure to act constitutes a breach of this Agreement, *provided*, *further*, *however*, that, in the event that the Proxy Statement is still being reviewed or commented on by the SEC, either Party shall be entitled to extend the date for termination of this Agreement pursuant to this Section 9.1(b) for an additional sixty (60) days; *provided*, *further*, *however*, that in the event a Closing Notice has been delivered pursuant to Section 9.1(l) prior to the date on which this Agreement is terminable pursuant to this Section 9.1(b), Talos may not terminate the Agreement under this Section 9.1(b) until the date that is twelve (12) Business Days following the date of delivery of such Closing Notice;

(c) by either Talos or the Company if a court of competent jurisdiction or other Governmental Authority shall have issued a final and nonappealable order, decree or ruling, or shall have taken any other action, having the effect of permanently restraining, enjoining or otherwise prohibiting the Merger;

(d) by Talos if the Company Stockholder Approval shall not have been obtained within twenty-four (24) hours after Company's receipt of written notice from Talos that the Registration Statement has been declared effective under the Securities Act;

(e) by either Talos or the Company if (i) the Talos Stockholder Meeting (including any adjournments and postponements thereof) shall have been held and completed and Talos' stockholders shall have taken a final vote on the Merger, the Contemplated Transactions and the issuance of shares of Talos Common

Stock in the Merger and (ii) the Merger, such transactions or any of the issuance of Talos Common Stock in the Merger and the Reverse Stock Split shall not have been approved at the Talos Stockholder Meeting (and shall not have been approved at any adjournment or postponement thereof) by the Talos Stockholder Approval; *provided*, *however*, that the right to terminate this Agreement under this Section 9.1(e) shall not be available to Talos where the failure to obtain the Talos Stockholder Approval shall have been caused by the action or failure to act of Talos and such action or failure to act constitutes a breach by Talos of this Agreement;

(f) by the Company (at any time prior to the approval of the issuance of Talos Common Stock in the Merger by the Talos Stockholder Approval) if (i) a Talos Change of Recommendation shall have occurred or (ii) Talos fails to include the Talos Board Recommendation in the Registration Statement containing the Proxy Statement or (iii) the Talos Board approves, endorses or recommends any Talos Acquisition Proposal or (iv) Talos enters into any letter of intent or similar document or any contract relating to a Talos Acquisition Proposal other than a confidentiality agreement permitted hereby;

(g) by the Company, upon a breach of any representation, warranty, covenant or agreement on the part of Talos or Merger Sub set forth in this Agreement, or if any representation or warranty of Talos shall have become inaccurate, in either case such that the conditions set forth in Section 8.1 or Section 8.2 would not be satisfied as of the time of such breach or as of the time such representation or warranty shall have become inaccurate, provided that if such inaccuracy in Talos' representations and warranties or breach by Talos or Merger Sub is curable by Talos or Merger Sub, then this Agreement shall not terminate pursuant to this Section 9.1(g) as a result of such particular breach or inaccuracy until the earlier of (i) the expiration of a 30 day period commencing upon delivery of written notice from Talos or Merger Sub to the Company of such breach or inaccuracy and (ii) Talos or Merger Sub (as applicable) ceasing to exercise commercially reasonable efforts to cure such breach (it being understood that this Agreement shall not terminate pursuant to this Section 9.1(g) as a result of such particular breach or inaccuracy if such breach by Talos or Merger Sub is cured prior to such termination becoming effective);

(h) by Talos, upon a breach of any representation, warranty, covenant or agreement on the part of the Company set forth in this Agreement, or if any representation or warranty of the Company shall have become inaccurate, in either case such that the conditions set forth in Section 7.1 or Section 7.2 would not be satisfied as of the time of such breach or as of the time such representation or warranty shall have become inaccurate, provided that if such inaccuracy in the Company's representations and warranties or breach by the Company is curable by the Company then this Agreement shall not terminate pursuant to this Section 9.1(h) as a result of such particular breach or inaccuracy until the earlier of (i) the expiration of a 30 day period commencing upon delivery of written notice from the Company to Talos of such breach or inaccuracy and (ii) the Company ceasing to exercise commercially reasonable efforts to cure such breach (it being understood that this Agreement shall not terminate pursuant to this Section 9.1(h) as a result of such particular breach or inaccuracy if such breach by the Company is cured prior to such termination becoming effective);

(i) by Talos, at any time prior to the Talos Stockholder Approval, in connection with Talos entering into a definitive agreement to effect a Talos Superior Offer; provided, Talos shall have complied with the terms of this Agreement and that such termination shall not be effective until Talos shall have paid the fee required by Section 9.3(b)(ii) to the Company;

(j) by the Company, at any time prior to the Company Stockholder Approval, in connection with Company entering into a definitive agreement to effect a Company Superior Offer; provided, the Company shall have complied with the terms of this Agreement and that such termination shall not be effective until the Company shall have paid the fee required by Section 9.3(b)(v) to Talos; or

(k) by the Company, if the projected Talos Cash Balance is less than the Minimum Talos Cash Balance.

(l) by the Company, if all of the conditions set forth in Sections 6, 7 and 8 have been satisfied or are capable of being satisfied as of the date of the Closing Notice other than the condition set forth in Section 6.5, (i) the Pre-Closing Dividend has not been paid, (ii) the Company sends written notice to Talos that the Company is prepared to consummate the Merger, subject to the satisfaction or waiver of the conditions to Closing on the Closing Date (the "**Closing Notice**"), and (iii) the Closing fails to occur within 10 Business Days after Talos receives such Closing Notice. For the avoidance of doubt, if termination by the Company could have been under a section other than this Section 9.1(l), termination shall be deemed to have been made under such other section.

9.2 Effect of Termination.

In the event of the termination of this Agreement as provided in Section 9.1, this Agreement shall be of no further force or effect; *provided*, *however*, that (i) this Section 9.2, Section 9.3, and Section 10 shall survive the termination of this Agreement and shall remain in full force and effect, and (ii) the termination of this Agreement shall not relieve any Party from any liability for any willful and material breach of any representation, warranty, covenant, obligation or other provision contained in this Agreement (including, in the case of any such willful and material breach by Talos, damages based on the consideration payable to the stockholders of the Company pursuant to this Agreement, which damages (in the event that specific performance was not sought by the Company, or, if sought by the Company, not awarded) shall be deemed to be equal to $3,220,000 (less any expenses previously reimbursed pursuant to Section 9.3(a)) as liquidated damages and not as a penalty). The Parties agree and acknowledge that the actual amount of damages that may be reasonably anticipated to result from any such willfull and material Talos breach is difficult or impossible to prove accurately and that the agreed upon sum is reasonable, and that if the damages described in the prior sentence are obtained by the Company, those damages shall be the sole and exclusive remedy hereunder of the Company and any Affiliate of the Company.

9.3 Expenses; Termination Fees.

(a) Except as set forth in this Section 9.3, all fees and expenses incurred in connection with this Agreement and the Contemplated Transactions shall be paid by the Party incurring such expenses, whether or not the Merger is consummated; provided, however, that: Talos shall make a nonrefundable cash payment to the Company, in an amount equal to the aggregate amount of all fees and expenses (including all attorneys' fees, accountants' fees, financial advisory fees and filing fees) that have been paid or that may become payable by or on behalf of the Company in connection with the preparation and negotiation of this Agreement and otherwise in connection with the Merger (up to a maximum aggregate equal to $1,250,000) (the "**Expense Reimbursement**") if this Agreement is terminated (i) by the Company or Talos pursuant to Section 9.1(b) or 9.1(g) and on or before the date of any such termination, a Talos Acquisition Proposal shall have been publicly announced or disclosed or a Talos Acquisition Proposal has otherwise been communicated to the Talos Board, or (ii) by the Company or Talos pursuant to Section 9.1(e) or 9.1(k). Any Expense Reimbursement required to be made (A) as the result of a termination of this Agreement by Talos shall be paid by Talos prior to the time of such termination; and (B) as the result of termination of this Agreement by the Company shall be paid by Talos within two Business Days after such termination.

(b)

(i) If this Agreement is terminated by the Company pursuant to Section 9.1(f) or (l), Talos shall pay to the Company, within 2 Business Days after termination of the Agreement, a nonrefundable fee in an amount equal to $3,220,000 (less any expenses previously reimbursed pursuant to Section 9.3(a)).

(ii) If this Agreement is terminated by Talos pursuant to Section 9.1(i), Talos shall pay to the Company, prior to the effectiveness of the termination of this Agreement, a nonrefundable fee in an amount equal to $3,220,000.

(iii) If this Agreement is terminated by Talos or the Company pursuant to Sections 9.1(b) or (e) or (g), and (1) at any time before the Talos Stockholder Meeting a Talos Acquisition Proposal shall have been publicly announced, disclosed or otherwise communicated to Talos's Board of Directors and (2) within 12 months of the date of termination of this Agreement, Talos enters into a definitive agreement with respect to a Talos Acquisition Proposal or consummates a transaction contemplated by a Talos Acquisition Proposal, Talos shall pay to the Company, upon consummation of such Acquisition Transaction, a nonrefundable fee in an amount equal to $3,220,000 (less any expenses previously reimbursed pursuant to Section 9.3(a)); provided, however, that for purposes of this Section 9.3(b)(iii), all references to "fifteen percent (15%)" in the definition of "Talos Acquisition Proposal" shall be deemed to be references to "fifty percent (50%)".

(iv) If this Agreement is terminated by Talos pursuant to Section 9.1(d), the Company shall pay to Talos, within 2 Business Days after termination of the Agreement, a nonrefundable fee in an amount equal to $2,275,000.

(v) If this Agreement is terminated by the Company pursuant to Section 9.1(j), the Company shall pay to Talos a nonrefundable fee in an amount equal to $2,275,000.

(c) If either Party fails to pay when due any amount payable by such Party under Section 9.3(b), then (i) such Party shall reimburse the other Party for reasonable costs and expenses (including reasonable fees and disbursements of counsel) incurred in connection with the collection of such overdue amount and the enforcement by the other Party of its rights under this Section 9.3, and (ii) such Party shall pay to the other Party interest on such overdue amount (for the period commencing as of the date such overdue amount was originally required to be paid and ending on the date such overdue amount is actually paid to the other Party in full) at a rate per annum equal to the "prime rate" (as announced by Bank of America or any successor thereto) in effect on the date such overdue amount was originally required to be paid.

(d) The Parties acknowledge that the agreements contained in this Section 9.3 are an integral part of the transactions contemplated by this Agreement and that, without these agreements, the Parties would not enter into this Agreement. If this Agreement is terminated pursuant to a provision in Section 9.3 that requires payment of a termination fee, then such payment shall be an exclusive remedy hereunder for the Party that actually receives such fee (and no other remedy, including, without limitation, under Section 9.2 shall be available to such Party), and if this Agreement is terminated pursuant to a provision in Section 9.3 that does not require payment of a termination fee, then the Parties may pursue any remedies available hereunder.

Section 10. MISCELLANEOUS PROVISIONS

10.1 Non-Survival of Representations and Warranties.

The representations and warranties of the Company and Talos contained in this Agreement or any certificate or instrument delivered pursuant to this Agreement shall terminate at the Effective Time, and only the covenants that by their terms survive the Effective Time and this Section 10 shall survive the Effective Time.

10.2 Amendment.

This Agreement may be amended with the approval of the respective Boards of Directors of the Company and Talos at any time (whether before or after the adoption and approval of this Agreement by the Company's stockholders or before or after the approval of the Merger or issuance of shares of Talos Common Stock in the Merger); *provided, however*, that after any such adoption and approval of this Agreement by a Party's stockholders, no amendment shall be made which by Law requires further approval of the stockholders of such Party without the further approval of such stockholders. This Agreement may not be amended except by an instrument in writing signed on behalf of each of the Company and Talos.

10.3 Waiver.

(a) No failure on the part of any Party to exercise any power, right, privilege or remedy under this Agreement, and no delay on the part of any Party in exercising any power, right, privilege or remedy under this Agreement, shall operate as a waiver of such power, right, privilege or remedy; and no single or partial exercise of any such power, right, privilege or remedy shall preclude any other or further exercise thereof or of any other power, right, privilege or remedy.

(b) No Party shall be deemed to have waived any claim arising out of this Agreement, or any power, right, privilege or remedy under this Agreement, unless the waiver of such claim, power, right, privilege or remedy is expressly set forth in a written instrument duly executed and delivered on behalf of such Party; and any such waiver shall not be applicable or have any effect except in the specific instance in which it is given.

10.4 Entire Agreement; Counterparts; Exchanges by Electronic Transmission.

This Agreement and the other agreements referred to in this Agreement constitute the entire agreement and supersede all prior agreements and understandings, both written and oral, among or between any of the Parties with respect to the subject matter hereof and thereof; *provided*, *however*, that the Confidentiality Agreement shall not be superseded and shall remain in full force and effect in accordance with its terms. This Agreement may be executed in several counterparts, each of which shall be deemed an original and all of which shall constitute one and the same instrument. The exchange of a fully executed Agreement (in counterparts or otherwise) by all Parties by facsimile or electronic transmission via ".pdf" shall be sufficient to bind the Parties to the terms and conditions of this Agreement.

10.5 Applicable Law; Jurisdiction.

This Agreement shall be governed by, and construed in accordance with, the Laws of the State of Delaware, regardless of the Laws that might otherwise govern under applicable principles of conflicts of Laws. In any action or proceeding between any of the parties arising out of or relating to this Agreement or any of the Contemplated Transactions, each of the parties: (i) irrevocably and unconditionally consents and submits to the exclusive jurisdiction and venue of the Court of Chancery of the State of Delaware or to the extent such court does not have subject matter jurisdiction, the Superior Court of the State of Delaware or the United States District Court for the District of Delaware, (ii) agrees that all claims in respect of such action or proceeding shall be heard and determined exclusively in accordance with clause (i) of this Section 10.5, (iii) waives any objection to laying venue in any such action or proceeding in such courts, (iv) waives any objection that such courts are an inconvenient forum or do not have jurisdiction over any party, and (v) agrees that service of process upon such party in any such action or proceeding shall be effective if notice is given in accordance with Section 10.8 of this Agreement.

10.6 Attorneys' Fees.

In any action at Law or suit in equity to enforce this Agreement or the rights of any of the parties under this Agreement, the prevailing Party in such action or suit shall be entitled to receive a reasonable sum for its attorneys' fees and all other reasonable costs and expenses incurred in such action or suit.

10.7 Assignability.

This Agreement shall be binding upon, and shall be enforceable by and inure solely to the benefit of, the parties hereto and their respective successors and assigns; *provided*, *however*, that neither this Agreement nor any of a Party's rights or obligations hereunder may be assigned or delegated by such Party without the prior written consent of the other Party, and any attempted assignment or delegation of this Agreement or any of such rights or obligations by such Party without the other Party's prior written consent shall be void and of no effect. Nothing in this Agreement, express or implied, is intended to or shall confer upon any Person (other than: (a) the parties hereto; (b) the directors and officers of the Company referred to in Section 5.5(a) to the extent of their respective rights pursuant to Section 5.5; and (c) the stockholders of Talos only with respect to the benefit of the Pre-Closing Dividend) any right, benefit or remedy of any nature whatsoever under or by reason of this Agreement.

10.8 Notices.

Any notice or other communication required or permitted to be delivered to any Party under this Agreement shall be in writing and shall be deemed properly delivered, given and received when delivered by hand, by registered mail, by courier or express delivery service or by facsimile to the address or facsimile telephone number set forth beneath the name of such Party below (or to such other address or facsimile telephone number as such Party shall have specified in a written notice given to the other parties hereto):

if to Talos or Merger Sub:

Targacept, Inc.
100 North Main Street, Suite 1510
Winston-Salem, NC 27101
Telephone: (336) 480–2100
Fax: (336) 480-2103
Attention: Dr. Stephen A. Hill

with a copy to:

Mintz, Levin, Cohn, Ferris, Glovsky & Popeo, P.C.
One Financial Center
Boston, Massachusetts 02111
Fax: (617) 542-2241
Attention: Megan N. Gates, Esq.
Marc D. Mantell, Esq.

if to the Company:

Catalyst Biosciences, Inc.
260 Littlefield Avenue
South San Francisco, CA 94080
Telephone: (650) 871-0761
Fax: (650) 745-0655
Attention: Nassim Usman, Ph.D.

with a copy to:

Morrison & Foerster LLP
1650 Tysons Boulevard
McLean, Virginia 22102
Telephone: (650) 813-5640
Fax: (650) 251-3745
Attention: Stephen B. Thau, Esq.

10.9 Cooperation.

Each Party agrees to cooperate fully with the other Party and to execute and deliver such further documents, certificates, agreements and instruments and to take such other actions as may be reasonably requested by the other Party to evidence or reflect the Contemplated Transactions and to carry out the intent and purposes of this Agreement.

10.10 Severability.

Any term or provision of this Agreement that is invalid or unenforceable in any situation in any jurisdiction shall not affect the validity or enforceability of the remaining terms and provisions of this Agreement or the

validity or enforceability of the offending term or provision in any other situation or in any other jurisdiction. If a final judgment of a court of competent jurisdiction declares that any term or provision of this Agreement is invalid or unenforceable, the Parties hereto agree that the court making such determination shall have the power to limit such term or provision, to delete specific words or phrases or to replace such term or provision with a term or provision that is valid and enforceable and that comes closest to expressing the intention of the invalid or unenforceable term or provision, and this Agreement shall be valid and enforceable as so modified. In the event such court does not exercise the power granted to it in the prior sentence, the Parties hereto agree to replace such invalid or unenforceable term or provision with a valid and enforceable term or provision that will achieve, to the extent possible, the economic, business and other purposes of such invalid or unenforceable term or provision.

10.11 Other Remedies; Specific Performance.

Except as otherwise provided herein, any and all remedies herein expressly conferred upon a Party will be deemed cumulative with and not exclusive of any other remedy conferred hereby, or by Law or equity upon such Party, and the exercise by a Party of any one remedy will not preclude the exercise of any other remedy. The Parties hereto agree that irreparable damage would occur in the event that any of the provisions of this Agreement were not performed in accordance with their specific terms or were otherwise breached. It is accordingly agreed that the Parties shall be entitled to seek and obtain an injunction or injunctions to prevent breaches of this Agreement and to enforce specifically the terms and provisions hereof in any court of the United States or any state having jurisdiction, this being the addition to any other remedy to which they are entitled at Law or in equity.

10.12 Construction.

(a) For purposes of this Agreement, whenever the context requires: the singular number shall include the plural, and vice versa; the masculine gender shall include the feminine and neuter genders; the feminine gender shall include the masculine and neuter genders; and the neuter gender shall include masculine and feminine genders.

(b) The Parties hereto agree that any rule of construction to the effect that ambiguities are to be resolved against the drafting Party shall not be applied in the construction or interpretation of this Agreement.

(c) As used in this Agreement, the words “include” and “including,” and variations thereof, shall not be deemed to be terms of limitation, but rather shall be deemed to be followed by the words “without limitation.”

(d) Except as otherwise indicated, all references in this Agreement to “Sections,” “Exhibits” and “Schedules” are intended to refer to Sections of this Agreement and Exhibits and Schedules to this Agreement, respectively.

(e) The bold-faced headings contained in this Agreement are for convenience of reference only, shall not be deemed to be a part of this Agreement and shall not be referred to in connection with the construction or interpretation of this Agreement.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed as of the date first above written.

TARGACEPT, INC.

By: /s/ Stephen A. Hill
Name: Stephen A. Hill
Title: Chief Executive Officer

TALOS MERGER SUB, INC.

By: /s/ Patrick Rock
Name: Patrick Rock
Title: President

CATALYST BIOSCIENCES, INC.

By: /s/ Nassim Usman Ph.D.
Name: Nassim Usman Ph.D.
Title: Chief Executive Officer

EXHIBIT A

Definitions

"**Affiliate**" means, with respect to any Person, any other Person controlling, controlled by, or under common control with such Person. As used in this definition, "control" (including, with its correlative meanings, "controlled by" and "under common control with") means the possession, directly or indirectly, of power to direct or cause the direction of the management and policies of a Person whether through the ownership of voting securities, by contract or otherwise.

"**Agreement**" has the meaning set forth in the Preamble and shall include the Exhibits and Schedules annexed hereto or referred to herein.

"**Anticipated Closing Date**" has the meaning set forth in Section 5.18(a).

"**Business Day**" means any day other than (a) a Saturday or Sunday, or (b) a day on which banking and savings and loan institutions are authorized or required by Laws to be closed in the State of New York.

"**Certificate of Merger**" has the meaning set forth in Section 1.3.

"**Closing**" has the meaning set forth in Section 1.3.

"**Closing Date**" has the meaning set forth in Section 1.3.

"**Closing Notice**" has the meaning set forth in Section 9.1(l).

"**Code**" means the Internal Revenue Code of 1986, as amended.

"**Company**" has the meaning set forth in the Preamble.

"**Company Acquisition Proposal**" has the meaning set forth in Section 4.5(a)(ii)(A).

"**Company Ancillary Lease Documents**" means all subleases, overleases and other ancillary agreements or documents materially pertaining to the tenancy at each such parcel of the Company Leased Real Property that materially affect or would be reasonably likely to materially affect the tenancy at any Company Leased Real Property.

"**Company Balance Sheet**" has the meaning set forth in Section 2.5(a).

"**Company Board Recommendation**" has the meaning set forth in Section 5.2(a)(ii).

"**Company Business**" means the business of the Company and any Subsidiary as currently conducted and currently proposed to be conducted.

"**Company Bylaws**" has the meaning set forth in Section 2.1(a).

"**Company Capital Stock**" means the Common Stock and Preferred Stock of the Company.

"**Company Cash Balance**" means (A) the cash and cash equivalents of the Company (excluding any amount paid after the date hereof pursuant to either the Research and License Agreement, dated June 29, 2009, by and between the Company and Wyeth, acting through its Wyeth Pharmaceuticals Division, as amended, or the License and Collaboration Agreement, dated September 16, 2013, by and between the Company and ISU Abxis, as amended) less (B) the sum of (i) any unpaid Company Transaction Expenses and (ii) any unpaid pre-Closing liabilities or obligations relating to the Company's pre-Closing business operations, other than payroll expenses, other budgeted expenses in the Ordinary Course of Business and payables in the Ordinary Course of Business.

"**Company Cash Determination Date**" has the meaning set forth in Section 5.19(a).

"**Company Cash Dispute Notice**" has the meaning set forth in Section 5.19(b).

"**Company Cash Response Date**" has the meaning set forth in Section 5.19(b).

"**Company Cash Shortfall**" means the amount, if any, by which the Company Cash Balance is less than the Company Target Cash Balance.

"**Company Cash Surplus**" means the amount, if any, up to $1.0 million, by which the Company Cash Balance is greater than the Company Target Cash Balance.

"**Company Change of Recommendation**" has the meaning set forth in Section 4.5(a)(iii).

"**Company Charter**" has the meaning set forth in Section 2.1(a).

"**Company Common Stock**" means the common stock, $0.001 par value per share, of the Company.

"**Company Contingent Workers**" has the meaning set forth in Section 2.15(b).

"**Company Contract**" means any Contract together with any amendments, waivers or other modifications thereto, to which the Company is a party.

"**Company Copyrights**" has the meaning set forth in Section 2.9(a).

"**Company Disclosure Schedule**" has the meaning set forth in Section 2.

"**Company Dissenting Shares**" has the meaning set forth in Section 1.8(a).

"**Company Employee Program**" has the meaning set forth in Section 2.14(a).

"**Company Financial Statements**" has the meaning set forth in Section 2.5(a).

"**Company Intellectual Property**" means all Intellectual Property owned by the Company or any of its Subsidiaries or used or held for use by the Company or any of its Subsidiaries in the Company Business and all Company Products. "Company Intellectual Property" includes, without limitation, Company Products, Company Patents, Company Marks, Company Copyrights and Company Trade Secrets.

"**Company Lease**" means the lease, license, sublease or other occupancy agreements and all amendments, modifications, supplements, and assignments thereto, together with all exhibits, addenda, riders and other documents constituting a part thereof, to which the Company is a party, for each parcel of the Company Leased Real Property.

"**Company Leased Real Property**" means the real property leased, subleased or licensed by the Company or its Subsidiaries that is related to or used in connection with the Company Business, and the real property leased, subleased or licensed by the Company or its Subsidiaries as tenant, subtenant, licensee or other similar party, together with, to the extent leased, licensed or owned by the Company or its Subsidiaries, all buildings and other structures, facilities or leasehold improvements, currently or hereafter located thereon.

"**Company Licenses-In**" has the meaning set forth in Section 2.9(a).

"**Company Licenses-Out**" has the meaning set forth in Section 2.9(a).

"**Company Marks**" has the meaning set forth in Section 2.9(a).

"**Company Material Adverse Effect**" means any change, circumstance, condition, development, effect, event, occurrence, result or state of facts that, individually or when taken together with any other related such change, circumstance, condition, development, effect, event, occurrence, result or state of facts, (a) has or would reasonably be expected to have a material adverse effect on the business, financial condition, assets, liabilities or results of operations of the Company and its Subsidiaries, taken as a whole, except that none of the following shall be taken into account in determining whether there has been a Company Material Adverse Effect: (i) changes in general economic or political conditions or the capital or securities markets in general (whether as a result of acts of terrorism, war (whether or not declared), armed conflicts or otherwise) to the extent they do not disproportionately affect the Company and its Subsidiaries, taken as a whole; (ii) changes in or affecting the industries in which the Company or its Subsidiaries operate to the extent they do not disproportionately affect the Company and its Subsidiaries, taken as a whole; (iii) changes, effects or circumstances resulting from the announcement or pendency of this Agreement or the consummation of the Contemplated Transactions or compliance with the terms of this Agreement; (iv) any specific action taken at the written request of Talos or Merger Sub or expressly required by this Agreement; (v) any changes in Laws or applicable accounting principles, or interpretations thereof and (vi) the commencement, continuation or escalation of war, terrorism or hostilities, or natural disasters or political events; or (b) would reasonably be expected to prevent or materially delay the ability of Company to consummate the Contemplated Transactions.

"**Company Material Contract**" has the meaning set forth in Section 2.10.

"**Company Minimum Cash Amount**" means $3,500,000; provided, however, such amount shall be reduced by $150,000 for each week after May 29, 2015 up to the Effective Time.

"**Company Minimum Holders**" means the (i) holders of at least 90% of the outstanding shares of Company Capital Stock voting together as a single class and on an as-converted basis and (ii) holders of at least 66 2/3% of the outstanding shares of Company Preferred Stock voting together as a single class, on an as-converted basis.

"**Company Net Cash Calculation**" has the meaning set forth in Section 5.19(a).

"**Company Net Cash Certificate**" has the meaning set forth in Section 5.19(a).

"**Company Nominees**" has the meaning set forth in Section 5.11.

"**Company Owned Real Property**" means the real property in which the Company or its Subsidiaries has any fee title (or equivalent).

"**Company Patents**" has the meaning set forth in Section 2.9(a).

"**Company Permits**" has the meaning set forth in Section 2.12(b).

"**Company Qualified Bidder**" has the meaning set forth in Section 4.5(a)(i).

"**Company Percentage**" means 100% multiplied by a fraction, (i) the numerator of which is equal to $65,000,000 minus the Company Cash Shortfall or plus the Company Cash Surplus, as applicable, and (ii) the denominator of which is equal to $100,000,000 minus the Company Cash Shortfall or plus the Company Cash Surplus, as applicable.

"**Company Preferred Stock**" means (i) the Series AA Preferred Stock, (ii) the Series BB Preferred Stock, (iii) the Series BB-1 Preferred Stock, (iv) the Series CC Preferred Stock, (v) the Series D Preferred Stock, (vi) the Series E Preferred Stock and (vii) the Series F Preferred Stock, each with a $0.001 par value per share, of the Company.

"**Company Products**" means PF-05280602 (formerly CB 813d) and CB 2679:d.

"**Company Regulatory Agency**" has the meaning set forth in Section 2.12(b).

"**Company Restricted Stock Award**" or "**Company Restricted Stock Awards**" means awards of shares of Company Common Stock that are subject to a repurchase or forfeiture right in favor of the Company pursuant to the terms of a restricted stock purchase agreement or other agreement with the Company whether or not issued under any of the Company Stock Option Plans.

"**Company Stand-Alone Stock Option**" or "**Company Stand-Alone Stock Options**" means an option to purchase Company Common Stock that was not issued under a Company Stock Option Plan.

"**Company Stock Certificate**" has the meaning set forth in Section 1.6.

"**Company Stock Option**" or "**Company Stock Options**" means options to purchase Company Common Stock issued under any of the Company Stock Option Plans and any Company Stand-Alone Stock Options.

"**Company Stock Option Plans**" means the Catalyst Biosciences, Inc. 2004 Stock Plan.

"**Company Stockholder Approval**" has the meaning set forth in Section 2.24.

"**Company Stockholder Written Consent**" means (a) the irrevocable adoption of this Agreement and approval of the Merger and (b) specified undertakings, representations, warranties, releases and waivers, pursuant to a written consent in substantially the form attached hereto as Exhibit C and otherwise reasonably acceptable to Talos, signed by the Company Minimum Stockholders, pursuant to and in accordance with the applicable provisions of the DGCL and the Company Charter.

"**Company Stockholders**" shall mean the holders of the capital stock of the Company immediately prior to the Effective Time.

"**Company Superior Offer**" has the meaning set forth in Section 4.5(a)(ii)(B).

"**Company Target Cash Balance**" means $5,000,000; provided, however, such amount shall be reduced by $150,000 for each week after May 29, 2015 up to the Effective Time.

"**Company Trade Secrets**" has the meaning set forth in Section 2.9(k).

"**Company Transaction Expenses**" means the fees and expenses of the Company (including without limitation all obligations to financial advisors under an engagement letter, and fees and expenses of brokers, finders, transfer agents, accountants, lawyers, exchange agent, transfer agent and other Representatives and consultants, as well as bonus obligations, tail policies and all similar items) incurred in connection with negotiating, preparing and executing this Agreement and consummating the transactions contemplated hereby.

"**Company Voting Agreements**" has the meaning set forth in the Recitals.

"**Company Warrants**" means the warrants listed on Section 2.2(d) of the Company Disclosure Schedule.

"**Confidentiality Agreement**" means that certain confidentiality agreement, dated as of November 10, 2014, by and between the Company and Talos.

"**Contemplated Transactions**" means the transactions proposed under this Agreement, including the Merger, the Pre-Closing Dividend and the Reverse Stock Split.

"**Contract**" means any loan or credit agreement, bond, debenture, note, mortgage, indenture, lease, supply agreement, license agreement, development agreement or other contract, agreement, arrangement, understanding, obligation, commitment or instrument that is legally binding, whether written or oral.

"**D&O Parties**" has the meaning set forth in Section 5.5(a).

"**DGCL**" means the Delaware General Corporation Law.

"**Effective Time**" has the meaning set forth in Section 1.3.

"**Employee Program**" means (A) all employee benefit plans within the meaning of ERISA Section 3(3), including, but not limited to, multiple employer welfare arrangements (within the meaning of ERISA Section 3(40)), plans to which more than one unaffiliated employer contributes and employee benefit plans (such as foreign or excess benefit plans) which are not subject to ERISA; (B) all stock option plans, stock purchase plans, bonus or incentive award plans, severance pay policies or agreements, deferred compensation agreements, employment agreements, retention agreements, change in control agreements, offer letters, supplemental income arrangements, vacation plans, and all other written employee benefit plans, agreements, and arrangements not described in (A) above, including without limitation, any arrangement intended to comply with Code Section 120, 125, 127, 129 or 137; and (C) all plans or arrangements providing compensation to employee and non-employee directors. In the case of an Employee Program funded through a trust described in Code Section 401(a) or an organization described in Code Section 501(c)(9), or any other funding vehicle, each reference to such Employee Program shall include a reference to such trust, organization or other vehicle.

"**Encumbrance**" means any mortgage, deed of trust, pledge, security interest, attachment, hypothecation, lien (statutory or otherwise), violation, charge, lease, license, option, right of first offer, right of first refusal, encumbrance, servient easement, deed restriction, adverse claim, reversion, reverter, preferential arrangement, condition or restriction of any kind or charge of any kind (including, without limitation, any conditional sale or title retention agreement or lease in the nature thereof) or any agreement to file any of the foregoing and any filing or agreement to file any financing statement as debtor under the Uniform Commercial Code or any similar statute.

"**Environment**" means soil, surface waters, groundwater, land, stream sediments, surface or subsurface strata and ambient air and biota living in or on such media.

"**Environmental Laws**" means Laws relating to protection of the Environment or the protection of human health as it relates to the Environment, including, without limitation, the federal Comprehensive Environmental Response, Compensation and Liability Act, the Resource Conservation and Recovery Act, the Clean Air Act, the Clean Water Act, the Toxic Substances Control Act, the Endangered Species Act and similar foreign, federal, state and local Laws as in effect on the Closing Date.

"**ERISA**" means the Employee Retirement Income Security Act of 1974, as amended.

"**ERISA Affiliate**" has the meaning ascribed thereto in Sections 2.14(h)(ii) and 3.14(h)(ii) hereof, as applicable.

"**Escrow Agent**" means Delaware Trust Company.

"**Escrow Agreement**" has the meaning set forth in Section 5.20.

"**Excess Shares**" has the meaning set forth in Section 1.5(b).

"**Exchange Act**" means the Securities Exchange Act of 1934, as amended.

"**Exchange Agent**" has the meaning set forth in Section 1.7(a).

"**Exchange Fund**" has the meaning set forth in Section 1.7(a).

"**Exchange Ratio**" means the quotient obtained by dividing (i) the total number of Merger Shares by (ii) the aggregate number of (A) shares of Company Common Stock (following the conversion of all shares of Company Preferred Stock) outstanding immediately prior to the Effective Time plus (B) shares of Company Common Stock issuable upon the exercise of In-the-Money Company Stock Options (whether vested or unvested), calculated to the nearest 1/10,000 of a share.

"**FDA**" has the meaning set forth in Section 2.12(b).

"**FDCA**" has the meaning set forth in Section 2.12(b).

"**Form S-4**" has the meaning set forth in Section 5.1(a).

"**GAAP**" means generally accepted accounting principles and practices in effect from time to time within the United States applied consistently throughout the period involved.

"**Governmental Authority**" means any U.S. or foreign, federal, state, or local governmental commission, board, body, bureau, or other regulatory authority, agency, including courts and other judicial bodies, or any self-regulatory body or authority, including any instrumentality or entity designed to act for or on behalf of the foregoing.

"**Hazardous Material**" means any pollutant, toxic substance, hazardous waste, hazardous materials, hazardous substances, petroleum or petroleum-containing products as defined in, or listed under, any Environmental Law.

"**Health Care Law**" has the meaning set forth in Section 2.12(c).

"**In-the-Money Company Stock Options**" means, without duplication, (i) the Company Stock Options listed on Schedule E and (ii) any warrants and other securities issued on or after the date hereof exercisable or convertible into shares of Company Capital Stock, regardless of the exercise or conversion price of such securities.

"**In-the-Money Talos Stock Options**" means the Talos Stock Options listed on Schedule D.

"**Indebtedness**" means Liabilities (a) for borrowed money, (b) evidenced by bonds, debentures, notes or similar instruments, (c) upon which interest charges are customarily paid (other than obligations accepted in connection with the purchase of products or services in the ordinary course of business), (d) of others secured by (or which the holder of such Liabilities has an existing right, contingent or otherwise, to be secured by) any Encumbrance or security interest on property owned or acquired by the Person in question whether or not the obligations secured thereby have been assumed, (e) under leases required to be accounted for as capital leases under GAAP, or (f) guarantees relating to any such Liabilities. Notwithstanding the foregoing, for all purposes hereunder, Indebtedness shall not include any payables among the Company or any of its Subsidiaries, and guarantees, if any, among the Company or any of its Subsidiaries in connection with transfer pricing arrangements.

"**Information Statement**" has the meaning set forth in Section 5.2(b).

"**Intellectual Property**" means any and all of the following, as they exist throughout the world: (A) patents and patent applications of any kind, inventions, discoveries and invention disclosures (whether or not patented) (collectively, "**Patents**"); (B) rights in registered and unregistered trademarks, service marks, trade names, trade dress, logos, packaging design, slogans and Internet domain names, and registrations and applications for

registration of any of the foregoing (collectively, "**Marks**"); (C) copyrights in both published and unpublished works, including without limitation all compilations, databases and computer programs, manuals and other documentation and all copyright registrations and applications, and all derivatives, translations, adaptations and combinations of the above (collectively, "**Copyrights**"); (D) rights in know-how, trade secrets, and confidential or proprietary information, research in progress, algorithms, data, designs, processes, formulae, drawings, schematics, blueprints, flow charts, models, strategies, prototypes, techniques, Beta testing procedures and Beta testing results (collectively, "**Trade Secrets**"); (E) any and all other intellectual property rights and/or proprietary rights relating to any of the foregoing and (F) goodwill, franchises, licenses, permits, consents, approvals, and claims of infringement and misappropriation against third parties.

"**IRS**" means the Internal Revenue Service of the United States.

"**Knowledge of Talos**" means the actual knowledge of the chief executive officer and chief financial officer of Talos, after due inquiry by each such individual of each such individual's direct reports.

"**Knowledge of the Company**" means the actual knowledge of Nassim Usman, Edwin L. Madison and Fletcher Payne, after due inquiry by each such individual of each such individual's direct reports.

"**Law**" or "**Laws**" means any federal, state, local, municipal, foreign (including foreign political subdivisions) or other law, Order, statute, constitution, principle of common law or equity, resolution, ordinance, code, writ, edict, decree, consent, approval, concession, franchise, permit, rule, regulation, judicial or administrative ruling, franchise, license, judgment, injunction, treaty, convention or other governmental certification, authorization or requirement issued, enacted, adopted, promulgated, implemented or otherwise put into effect by or under the authority of any Governmental Authority, and the term "applicable" with respect to such Laws and in the context that refers to one or more Persons means that such Laws apply to such Person or Persons or its or their business, undertaking, property or security and put into effect by or under the authority of a Governmental Authority having jurisdiction over the Person or Persons or its or their business, undertaking, property or security.

"**Legal Proceeding**" means any action, arbitration, claim, complaint, criminal prosecution, demand letter, hearing, inquiry, administrative or other proceeding, or written notice by any Person alleging potential liability.

"**Letter of Transmittal**" has the meaning set forth in Section 1.7(b).

"**Liability**" has the meaning set forth in Section 2.11.

"**Lock-up Agreements**" has the meaning set forth in the Recitals.

"**Merger**" has the meaning set forth in the Recitals.

"**Merger Consideration**" has the meaning set forth in Section 1.5(a)(ii).

"**Merger Shares**" means the total number of shares of Talos Common Stock to be issued in the Merger pursuant to Section 1.5(a)(ii), determined as follows: (a) the Company Percentage multiplied by (b) the quotient of (i) the total number of shares of Talos Common Stock outstanding immediately prior to the Effective Time plus the shares of Talos Common Stock issuable upon exercise of all In-The-Money Talos Stock Options (whether vested or unvested), divided by (ii) the Talos Percentage.

"**Merger Sub**" has the meaning set forth in the Preamble.

"**Minimum Talos Cash Balance**" means $72,000,000 (plus $1,500,000 if the NNR Assets are retained by the Company as of Closing).

"**Multiemployer Plan**" means an employee pension benefit plan or welfare benefit plan described in Section 4001(a)(3) of ERISA.

"**NNR Assets**" means any and all assets relating to Talos' development of neuronal nicotinic receptors.

"**NNR Restricted Cash Account**" has the meaning set forth in Section 5.21.

"**Official**" has the meaning set forth in Section 2.22.

"**Ordinary Course of Business**" means with respect to a Party, the ordinary and usual course of normal operations of such Party.

"**Order**" means any judgment, order, writ, injunction, ruling, decision or decree of, or any settlement under the jurisdiction of, any Court or Governmental Authority.

"**Party**" or "**Parties**" means Talos, Merger Sub and the Company.

"**Permit**" means any franchise, authorization, approval, Order, consent, license, certificate, permit, registration, qualification or other right or privilege.

"**Permitted Encumbrances**" means (i) Encumbrances for Taxes or other governmental charges, assessments or levies that are not yet due and payable or being contested in good faith by appropriate proceedings, (ii) statutory landlord's, mechanic's, carrier's, workmen's, repairmen's or other similar Encumbrances arising or incurred in the ordinary course of business, the existence of which does not, and would not reasonably be expected to, materially impair the marketability, value or use and enjoyment of the asset subject to such Encumbrances, and (iii) Encumbrances and other conditions, easements and reservations of rights, including rights of way, for sewers, electric lines, telegraph and telephone lines and other similar purposes, and affecting the fee title to any real property leased by the Company or its Subsidiaries and being transferred to Talos or Merger Sub at Closing which are of record as of the date of this Agreement and the existence of which does not, and would not reasonably be expected to, materially impair use and enjoyment of such real property, and (iv) with respect to Leased Real Property only, Encumbrances (including Indebtedness) encumbering the fee title interested in any Leased Real Property which are not attributable or related to the Company or its Subsidiaries. Notwithstanding the foregoing, any Encumbrances for Indebtedness of the Company or its Subsidiaries as of the Closing will not be a Permitted Encumbrance.

"**Person**" means any individual, corporation, firm, partnership, joint venture, association, trust, company, Governmental Authority, syndicate, body corporate, unincorporated organization, or other legal entity, or any governmental agency or political subdivision thereof.

"**PHSA**" has the meaning set forth in Section 2.12(b).

"**Pre-Closing Dividend**" has the meaning set forth in Section 5.17.

"**Pre-Closing Cash Dividend Amount**" means the Talos Cash Balance as of the Talos Cash Determination Date determined in accordance with Section 5.18, minus the Minimum Talos Cash Balance.

"**Pre-Closing Period**" has the meaning set forth in Section 4.1.

"**Proxy Statement**" has the meaning set forth in Section 5.1(a).

"**Redeemable Convertible Notes**" means the Redeemable Convertible Notes to be issued under the indenture substantially in the form attached hereto as Exhibit E, by Talos to the Talos Stockholders as part of the Pre-Closing Dividend in the aggregate principal amount of $37,000,000.

"**Registration Statement**" has the meaning set forth in Section 5.1(a).

"**Release**" means any releasing, disposing, discharging, injecting, spilling, leaking, pumping, dumping, emitting, escaping or emptying of a Hazardous Material into the Environment.

"**Representatives**" means the directors, officers, employees, Affiliates, investment bankers, financial advisors, attorneys, accountants, brokers, finders or representatives of the Company, Merger Sub, Talos or any of their respective Subsidiaries, as the case may be.

"**Reverse Stock Split**" has the meaning set forth in Section 5.15.

"**Reviewing Accounting Firm**" has the meaning set forth in Section 5.18(e).

"**Sarbanes-Oxley Act**" means the Sarbanes-Oxley Act of 2002.

"**SEC**" means the Securities and Exchange Commission.

"**Securities Act**" means the Securities Act of 1933, as amended.

"**Subsidiary**" or "**Subsidiaries**" means, when used with reference to a party, any corporation or other organization, whether incorporated or unincorporated, of which such party or any other subsidiary of such party is a general partner (excluding partnerships the general partnership interests of which held by such party or any subsidiary of such party do not have a majority of the voting interests in such partnership) or serves in a similar capacity, or, with respect to such corporation or other organization, more than 50% of the securities or other interests having by their terms ordinary voting power to elect a majority of the board of directors or others performing similar functions is directly or indirectly owned or controlled by such party or by any one or more of its Subsidiaries, or by such party and one or more of its Subsidiaries.

"**Surviving Corporation**" has the meaning set forth in Section 1.1.

"**Talos**" has the meaning set forth in the Preamble.

"**Talos Acquisition Proposal**" has the meaning set forth in Section 4.5(b)(ii)(A).

"**Talos Ancillary Lease Documents**" means all subleases, overleases and other ancillary agreements or documents pertaining to the tenancy at each such parcel of the Talos Leased Real Property that materially affect or may materially affect the tenancy at any Talos Leased Real Property.

"**Talos Board**" means the Board of Directors of Talos.

"**Talos Board Recommendation**" has the meaning set forth in Section 5.2(c)(ii).

"**Talos Business**" means the business of Talos and any Subsidiary as currently conducted and currently proposed to be conducted.

"**Talos Bylaws**" means the Amended and Restated By-laws of Talos, as amended and in effect on the date hereof.

"**Talos Cash Balance**" means (A) the cash and cash equivalents of Talos less (B) the sum of (i) the unpaid Talos Transaction Expenses as of the Effective Time and (ii) net costs of Talos with respect to any disposition of any or all NNR Assets and liabilities relating thereto and any unpaid post-Closing liabilities or obligations relating to Talos' pre-Closing business operations, whether or not required to be disclosed on a balance sheet of Talos under GAAP.

"**Talos Cash Determination Date**" has the meaning set forth in Section 5.18(a).

"**Talos Cash Dispute Notice**" has the meaning set forth in Section 5.18(b).

"**Talos Cash Response Date**" has the meaning set forth in Section 5.18(b).

"**Talos Certificates**" has the meaning set forth in Section 1.7(a).

"**Talos Change of Recommendation**" has the meaning set forth in Section 4.5(b)(iii).

"**Talos Charter**" means the Amended and Restated Certificate of Incorporation of Talos, as amended and in effect on the date hereof.

"**Talos Common Stock**" means the common stock, par value $0.001 per share, of Talos.

"**Talos Contract**" means any Contract together with any amendments, waivers or other modifications thereto, to which Talos is a party.

"**Talos Copyrights**" has the meaning set forth in Section 3.9(a).

"**Talos Contingent Workers**" has the meaning set forth in Section 3.15(b).

"**Talos Disclosure Schedule**" has the meaning set forth in Section 3.

"**Talos Employee Programs**" has the meaning set forth in Section 3.14(a).

"**Talos Financial Statements**" has the meaning set forth in Section 3.5(c).

"**Talos Intellectual Property**" means all Intellectual Property owned by Talos or any of its Subsidiaries or used or held for use by Talos or any of its Subsidiaries in the Talos Business and all Talos Products. "Talos Intellectual Property" includes, without limitation, Talos Products, Talos Patents, Talos Marks, Talos Copyrights and Talos Trade Secrets.

"**Talos Leased Real Property**" means the real property leased, subleased or licensed by Talos, or any Subsidiary thereof, that is related to or used in connection with the Talos Business, and the real property leased, subleased or licensed by Talos or any Subsidiary thereof, in each case, as tenant, subtenant, licensee or other similar party, together with, to the extent leased, licensed or owned by Talos or any Subsidiary thereof, all buildings and other structures, facilities or leasehold improvements, currently or hereafter located thereon.

"**Talos Leases**" means the lease, license, sublease or other occupancy agreements and all amendments, modifications, supplements, and assignments thereto, together with all exhibits, addenda, riders and other documents constituting a part thereof, to which Talos is a party, for each parcel of Talos Leased Real Property.

"**Talos Licenses-In**" has the meaning set forth in Section 3.9(a).

"**Talos Licenses-Out**" has the meaning set forth in Section 3.9(a).

"**Talos Marks**" has the meaning set forth in Section 3.9(a).

"**Talos Material Adverse Effect**" means any change, circumstance, condition, development, effect, event, occurrence, result or state of facts that, individually or when taken together with any other related such change, circumstance, condition, development, effect, event, occurrence, result or state of facts, has or would reasonably

be expected to (a) have a material adverse effect on the business, financial condition, assets, liabilities or results of operations of Talos and its Subsidiaries, taken as a whole, except that none of the following shall be taken into account in determining whether there has been a Talos Material Adverse Effect: (i) changes in general economic or political conditions or the capital or securities markets in general (whether as a result of acts of terrorism, war (whether or not declared), armed conflicts or otherwise) to the extent they do not disproportionately affect Talos and its Subsidiaries, taken as a whole; (ii) changes in or affecting the industries in which Talos operates to the extent they do not disproportionately affect Talos and its Subsidiaries, taken as a whole; (iii) changes, effects or circumstances resulting from the announcement or pendency of this Agreement or the consummation of the Contemplated Transactions or compliance with the terms of this Agreement; (iv) any specific action taken at the written request of the Company or expressly required by this Agreement; (v) any changes in Laws or applicable accounting principles, or interpretations thereof; (vi) the commencement, continuation or escalation of war, terrorism or hostilities, or natural disasters or political events; (vii) any changes in or affecting research and development, clinical trials or other drug development activities conducted by or on behalf of Talos or its Subsidiaries in respect of Talos Products or any other product candidates; and (viii) continued losses from operations or decreases in cash balances of Talos or any of its Subsidiaries or on a consolidated basis among Talos and its Subsidiaries; or (b) prevent or materially delay the ability of Talos and Merger Sub to consummate the Contemplated Transactions. No change, circumstance, condition, development, effect, event, occurrence, result or state of facts relating to NNR Assets shall be considered to be or taken into account in determining whether there has been a Talos Material Adverse Effect.

"**Talos Material Contract**" has the meaning set forth in Section 3.10.

"**Talos Net Cash Calculation**" has the meaning set forth in Section 5.18(a).

"**Talos Net Cash Certificate**" has the meaning set forth in Section 5.18(a).

"**Talos Owned Real Property**" means the real property in which Talos or any of its Subsidiaries has any fee title (or equivalent).

"**Talos Patents**" has the meaning set forth in Section 3.9(a).

"**Talos Percentage**" means one hundred percent (100%) minus the Company Percentage.

"**Talos Permits**" has the meaning set forth in Section 3.12(b).

"**Talos Preferred Stock**" means the preferred stock, par value $0.001 per share, of Talos.

"**Talos Products**" means the assets of Talos relating to its neuronal nicotinic receptor compounds, including but not limited to TC-1734, TC-5214, TC-5619, TC-6499, TC-6683, TC-6987, and any other novel small molecule product candidates of Talos that modulate, either directly or indirectly, the activity of one or more neuronal nicotinic receptors.

"**Talos Qualified Bidder**" has the meaning set forth in Section 4.5(b)(i).

"**Talos Regulatory Agency**" has the meaning set forth in Section 3.12(b).

"**Talos Restricted Stock Award**" or "**Talos Restricted Stock Awards**" means awards of restricted stock issued under any of the Talos Stock Option Plans.

"**Talos SEC Reports**" has the meaning set forth in Section 3.5(a).

"**Talos Stock Option Plans**" means the Amended and Restated 2000 Equity Incentive Plan and the Amended and Restated 2006 Stock Incentive Plan, as amended.

"**Talos Stock Options**" means options to purchase Talos Common Stock issued under any of the Talos Stock Option Plans and the Nonqualified Stock Option Agreement, dated December 3, 2012, by and between Talos and Stephen A. Hill.

"**Talos Stockholder Approval**" has the meaning set forth in Section 3.24.

"**Talos Stockholder Meeting**" has the meaning set forth in Section 5.2(c)(i).

"**Talos Stockholder Proposals**" has the meaning set forth in Section 5.2(c)(i).

"**Talos Stockholders**" shall mean the holders of the capital stock of Talos immediately prior to the Effective Time.

"**Talos Superior Offer**" has the meaning set forth in Section 4.5(b)(ii)(B).

"**Talos Trade Secrets**" has the meaning set forth in Section 3.9(k).

"**Talos Transaction Expenses**" means the fees and expenses of Talos and Merger Sub (including without limitation all obligations to financial advisors under an engagement letter, and fees and expenses of brokers, finders, transfer agents, escrow agent, trustee, accountants, lawyers, exchange agent, transfer agent and other Representatives and consultants, as well as bonus obligations, tail policies and all similar items) incurred in connection with negotiating, preparing and executing this Agreement and consummating the transactions contemplated hereby.

"**Talos Voting Agreements**" has the meaning set forth in the Recitals.

"**Tax**" or "**Taxes**" means any and all taxes, customs, duties, tariffs, deficiencies, assessments, levies, or other like governmental charges, including, without limitation, taxes based upon or measured by income, gross receipts, excise, real or personal property, ad valorem, value added, estimated, alternative minimum, stamp, sales, withholding, social security (or similar), unemployment, disability, occupation, premium, windfall, use, service, service use, license, net worth, payroll, pension, franchise, environmental (including taxes under Section 59A of the Code), severance, transfer, capital stock and recording taxes and charges, imposed by the IRS or any other taxing authority (whether domestic or foreign including, without limitation, any state, county, local, or foreign government or any subdivision or taxing agency thereof (including a United States possession)), whether computed on a separate, consolidated, unitary, combined, or any other basis; and such term shall include any interest, fines, penalties, or additional amounts attributable to, or imposed upon, or with respect to, any such amounts, whether disputed or not, and shall also include any obligations to indemnify or otherwise assume or succeed to the tax liability of any other Person.

"**Taxing Authority**" means any Governmental Authority responsible for the imposition of any Tax.

"**Tax Return**" means any report, return, document, declaration, election, schedule or other information or filing, or any amendment thereto, required to be supplied to any taxing authority or jurisdiction (foreign or domestic) with respect to Taxes, including, without limitation, information returns and any documents with respect to or accompanying payments of estimated Taxes or requests for the extension of time in which to file any such report, return, document, declaration, or other information.

"**Third Party Intellectual Property**" has the meaning set forth in Section 2.9(f).

"**Trust**" means the trust or other entity established in accordance with the terms of Schedule B.

"**Voting Agreements**" has the meaning set forth in the Recitals.

"**WARN Act**" has the meaning set forth in Section 2.15(b).

SCHEDULE 5.11

Chief Executive Officer and President: Nassim Usman, Ph.D.

Chief Financial Officer: Fletcher Payne

Chief Scientific Officer: Edwin Madison, Ph.D.

Secretary: Stephen Thau

Director Classification:

Class I (term ending 2016): Stephen Hill and Augustine Lawlor

Class II (term ending 2017): John P. Richard and Jeff Himawan

Class III (term ending 2018): Errol B. De Souza, Harold E. Selick and Nassim Usman

Annex A-2

AMENDMENT NO. 1 TO

AGREEMENT AND PLAN OF MERGER

THIS AMENDMENT NO. 1 TO AGREEMENT AND PLAN OF MERGER (this "Amendment"), is made and entered into as of May 6, 2015, by and among Targacept, Inc., a Delaware corporation ("Talos"), Talos Merger Sub, Inc., a Delaware corporation (the "Merger Sub"), and Catalyst Biosciences, Inc., a Delaware corporation (the "Company"). All capitalized terms used but not defined herein shall have the meanings set forth in the Merger Agreement (as defined below).

RECITALS

WHEREAS, the Parties have entered into that certain Agreement and Plan of Merger, dated as of March 5, 2015 (the "Merger Agreement"), providing for, among other things, the merger of the Merger Sub with and into the Company, with the Company surviving as a wholly-owned subsidiary of Talos; and

WHEREAS, pursuant to Section 10.2 of the Merger Agreement, the Parties wish to amend the Merger Agreement as set forth in this Amendment for the purpose of extending the date on which either Party may terminate the Merger Agreement under Section 9.1(b) of the Merger Agreement.

NOW, THEREFORE, in consideration of the foregoing and the respective representations, warranties, covenants and agreements set forth herein and in the Merger Agreement, subject to the conditions set forth in the Merger Agreement, and intending to be legally bound hereby, the Parties agree as follows:

1. In Section 9.1(b) of the Merger Agreement, "July 31, 2015" is hereby replaced with "September 30, 2015".

2. Representations and Warranties. Each Party represents and warrants to the other as follows: (a) such Party has all requisite corporate power and authority to enter into this Amendment; (b) the execution and delivery of this Amendment has been duly authorized by all necessary corporate action on the part of such Party; and (c) this Amendment has been duly executed and delivered by such Party and constitutes a valid and binding obligation of such Party, enforceable against such Party in accordance with its terms, subject to bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and similar laws of general applicability relating to or affecting creditors' rights and to general equitable principles.

3. References. All references to the Merger Agreement (including "hereof," "herein," "hereunder," "hereby" and "this Agreement") shall refer to the Merger Agreement as amended by this Amendment.

4. Effect on the Merger Agreement. Except as specifically amended by this Amendment, the Merger Agreement shall remain in full force and effect. This Amendment and the matters set forth herein shall be governed by the terms and conditions of the Merger Agreement, as amended hereby, which are incorporated by reference into this Amendment. Each Party agrees that the Merger Agreement, as amended by this Amendment, constitutes the complete and exclusive statement of the agreement between the Parties, and supersedes all prior proposals and understandings, oral and written, relating to the subject matter contained herein. If there is any conflict between the terms and provisions of this Amendment and the terms and provisions of the Merger Agreement, the terms and provisions of this Amendment shall govern.

5. Amendment. This Amendment shall not be amended, supplemented, modified or rescinded except in a writing signed by the Parties.

6. Governing Law. This Amendment shall be governed and construed in accordance with the laws of the State of Delaware without regard for the conflicts of laws principles thereof that might otherwise refer construction or interpretation of this Amendment to the substantive law of another jurisdiction.

7. Counterparts. This Amendment may be executed in counterparts (which counterparts may be delivered by facsimile or other commonly used electronic means), each of which shall be considered one and the same agreement and shall become effective when all counterparts have been signed by each of the Parties and delivered to the other Parties, it being understood that all Parties need not sign the same counterpart.

[Remainder of this page intentionally left blank]

IN WITNESS WHEREOF, the Parties have caused this Amendment to be signed by their respective officers thereunto duly authorized, all as of the date first set forth above.

TARGACEPT, INC.

By: /s/ Stephen Hill
Name: Dr. Stephen A. Hill
Title: President & CEO

TALOS MERGER SUB, INC.

By: /s/ Patrick Rock
Name: Patrick C. Rock
Title: President

CATALYST BIOSCIENCES, INC.

By: /s/ Nassim Usman
Name: Nassim Usman, Ph.D.
Title: CEO

Annex A-3

AMENDMENT NO. 2 TO

AGREEMENT AND PLAN OF MERGER

THIS AMENDMENT NO. 2 TO AGREEMENT AND PLAN OF MERGER (this "Amendment"), is made and entered into as of May 13, 2015, by and among Targacept, Inc., a Delaware corporation ("Talos"), Talos Merger Sub, Inc., a Delaware corporation (the "Merger Sub"), and Catalyst Biosciences, Inc., a Delaware corporation (the "Company"), as amended. All capitalized terms used but not defined herein shall have the meanings set forth in the Merger Agreement (as defined below).

RECITALS

A. The Parties have entered into that certain Agreement and Plan of Merger, dated as of March 5, 2015, as amended by that certain Amendment No. 1 thereto dated May 6, 2015 (the "Merger Agreement"), providing for, among other things, the merger of the Merger Sub with and into the Company, with the Company surviving as a wholly-owned subsidiary of Talos.

B. Pursuant to Section 10.2 of the Merger Agreement, the Parties wish to amend the Merger Agreement as set forth in this Amendment for the purpose of effectuating a change to the calculation of the Company Percentage and to make such other changes as are set forth herein.

C. In order to induce the Company to enter into this Amendment and to cause the Merger to be consummated, certain stockholders of Talos listed on Schedule A-1 hereto are executing amended voting agreements in favor of the Company concurrently with the execution and delivery of this Amendment in substantially the form attached hereto as Exhibit B-1 (the "Talos Voting Agreements").

D. In order to induce Talos and Merger Sub to enter into this Amendment and to cause the Merger to be consummated, certain stockholders of the Company listed on Schedule A-2 hereto are executing voting agreements in favor of Talos concurrently with the execution and delivery of this Amendment in substantially the form attached hereto as Exhibit B-2 (the "Company Voting Agreements" and, together with the Talos Voting Agreements, the "Voting Agreements").

NOW, THEREFORE, in consideration of the foregoing and the respective representations, warranties, covenants and agreements set forth herein and in the Merger Agreement, subject to the conditions set forth in the Merger Agreement, and intending to be legally bound hereby, the Parties agree as follows:

1. Amended Definitions. The following definitions in Exhibit A of the Merger Agreement are hereby amended and restated in their entirety to read as follows:

"**Company Cash Balance**" means (A) the cash and cash equivalents of the Company (excluding any amount paid after March 5, 2015 pursuant to either the Research and License Agreement, dated June 29, 2009, by and between the Company and Wyeth LLC, acting through its Wyeth Pharmaceuticals Division, as amended, related to work prior to the date hereof or the License and Collaboration Agreement, dated September 16, 2013, by and between the Company and ISU Abxis, as amended) less (B) the sum of (i) any unpaid Company Transaction Expenses and (ii) any unpaid pre-Closing liabilities or obligations relating to the Company's pre-Closing business operations, other than payroll expenses, other budgeted expenses in the Ordinary Course of Business and payables in the Ordinary Course of Business.

"**Company Minimum Cash Amount**" means $3,500,000; provided, however, such amount shall be reduced by $150,000 for each week after July 29, 2015 up to the Effective Time.

"**Company Percentage**" means 100% multiplied by a fraction, (i) the numerator of which is equal to $48,000,000 minus the Company Cash Shortfall or plus the Company Cash Surplus, as applicable, and (ii) the denominator of which is equal to $83,000,000 minus the Company Cash Shortfall or plus the Company Cash Surplus, as applicable.

"**Company Target Cash Balance**" means $5,000,000; provided, however, such amount shall be reduced by $150,000 for each week after July 29, 2015 up to the Effective Time.

2. Extension of Stated Maturity Date of Notes. The Form of Indenture in Exhibit E of the Merger Agreement (the "Form of Indenture") is hereby amended and restated as follows:

A. The definition of "Stated Maturity Date" in Section 1.01 of the Form of Indenture is hereby amended and restated in its entirety to read as follows:

"Stated Maturity Date" means [ ], 2018 [30 months from the date of issuance], which is the date that all principal on all Outstanding Securities is due and payable.

B. Section 2 of Exhibit A of the Form of Indenture is hereby amended and restated in its entirety to read as follows:

The Company promises to pay on , 2018 [the 30 month anniversary of the date of the Indenture] (the "Stated Maturity Date") the principal amount set forth on Schedule I of this Security to the registered Holder of this Security in the Security Register. This Security will not bear interest.

C. Section 2 of Exhibit B of the Form of Indenture is hereby amended and restated in its entirety to read as follows:

The Company promises to pay on , 2018 [the 30 month anniversary of the date of the Indenture] (the "Stated Maturity Date") the principal amount of $ to the registered Holder of this Security in the Security Register. This Security will not bear interest.

3. NNR Assets. The Parties have agreed that Talos will retain any NNR Assets that have not been disposed of by Talos prior to the Effective Time. Accordingly, the Parties agreed to additional amendments to the Merger Agreement, as follows:

A. In Section 5.9(d) of the Merger Agreement, the first sentence shall be deleted.

B. In Section 5.17 of the Merger Agreement, the words ", the Pre-Closing Cash Dividend Amount, and the beneficial interests in the Trust as further described on Schedule B" shall be replaced with the words "and the Pre-Closing Cash Dividend amount" and the words "; and provided further that the beneficial interests in the Trust shall not be part of the Pre-Closing Dividend if, prior to the Talos Cash Determination Date, Talos sells or otherwise disposes of the NNR Assets" shall be deleted.

C. Section 5.21 of the Merger Agreement shall be deleted in its entirety.

D. The defined term "Minimum Talos Cash Balance" shall be amended to remove "(plus $1,500,000 if the NNR Assets are retained by the Company as of the Closing)".

E. The defined terms "NNR Restricted Cash Account" and "Trust" shall be deleted in their entirety.

F. In the definition of "Talos Cash Balance", the following words shall be deleted: "net costs of Talos with respect to any disposition of any or all NNR Assets and liabilities relating thereto and".

G. Schedule B shall be deleted in its entirety.

4. Mutual Non-Solicitation. The Company and Talos shall, and shall cause each of their respective Subsidiaries and their respective Representatives to, immediately cease and cause to be terminated any and all existing activities, discussions or negotiations with any Person conducted prior to the date hereof with respect to, or that may reasonably be expected to lead to, a Company Acquisition Proposal or Talos Acquisition Proposal, including any activities, discussions or negotiations arising after the date of the Merger Agreement. Notwithstanding the foregoing, nothing in this Amendment shall be deemed to limit or otherwise affect either the Company's ability to take any action permitted under the Merger Agreement in response to an unsolicited bona fide written Company Acquisition Proposal received from any Person after the date hereof or Talos' ability to take any action permitted under the Merger Agreement in response to an unsolicited bona fide written Talos Acquisition Proposal received from any Person after the date hereof.

5. Representations and Warranties. Each Party represents and warrants to the other as follows: (a) such Party has all requisite corporate power and authority to enter into this Amendment; (b) the execution and delivery of this Amendment has been duly authorized by all necessary corporate action on the part of such Party; and (c) this Amendment has been duly executed and delivered by such Party and constitutes a valid and binding obligation of such Party, enforceable against such Party in accordance with its terms, subject to bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and similar laws of general applicability relating to or affecting creditors' rights and to general equitable principles. Talos further acknowledges and agrees that the termination by Wyeth of the Research and License Agreement, dated June 29, 2009, by and between the Company and Wyeth LLC, acting through its Wyeth Pharmaceuticals Division, as amended, does not constitute a breach by the Company of any representation, warranty or covenant of the Company contained in the Merger Agreement and shall not be taken into account in determining whether there has occurred, a Company Material Adverse Effect.

6. References. All references to the Merger Agreement (including "hereof," "herein," "hereunder," "hereby" and "this Agreement") shall refer to the Merger Agreement as amended.

7. Effect on the Merger Agreement. Except as specifically amended by this Amendment, the Merger Agreement, as amended, shall remain in full force and effect. This Amendment and the matters set forth herein shall be governed by the terms and conditions of the Merger Agreement, as amended hereby, which are incorporated by reference into this Amendment. Each Party agrees that the Merger Agreement, as amended by this Amendment and that certain Amendment No. 1 thereto dated May 6, 2015, constitutes the complete and exclusive statement of the agreement between the Parties, and supersedes all prior proposals and understandings, oral and written, relating to the subject matter contained herein. If there is any conflict between the terms and provisions of this Amendment and the terms and provisions of the Merger Agreement, the terms and provisions of this Amendment shall govern.

8. Amendment. This Amendment shall not be amended, supplemented, modified or rescinded except in a writing signed by the Parties.

9. Governing Law. This Amendment shall be governed and construed in accordance with the laws of the State of Delaware without regard for the conflicts of laws principles thereof that might otherwise refer construction or interpretation of this Amendment to the substantive law of another jurisdiction.

10. Counterparts. This Amendment may be executed in counterparts (which counterparts may be delivered by facsimile or other commonly used electronic means), each of which shall be considered one and the same agreement and shall become effective when all counterparts have been signed by each of the Parties and delivered to the other Parties, it being understood that all Parties need not sign the same counterpart.

IN WITNESS WHEREOF, the Parties have caused this Amendment to be signed by their respective officers thereunto duly authorized, all as of the date first set forth above.

TARGACEPT, INC.

By: /s/ Stephen A. Hill
Name: Stephen A. Hill
Title: Chief Executive Officer

TALOS MERGER SUB, INC.

By: /s/ Patrick Rock
Name: Patrick Rock
Title: President

CATALYST BIOSCIENCES, INC.

By: /s/ Nassim Usman Ph.D.
Name: Nassim Usman Ph.D.
Title: Chief Executive Officer

Annex B

May 13, 2015

Board of Directors
Targacept, Inc.
100 North Main Street, Suite 1510
Winston-Salem, NC 27101-4072

Members of the Board:

Stifel, Nicolaus & Company, Incorporated ("Stifel" or "we") has been advised that Targacept, Inc. (the "Company") is considering entering into Amendment No. 2 ("Amendment No. 2") to that certain Agreement and Plan of Merger dated as of March 5, 2015, as previously amended on May 6, 2015 (together with Amendment No. 2, the "Merger Agreement"), with Catalyst Biosciences, Inc. ("Seller") and Talos Merger Sub, Inc. ("Merger Sub"), pursuant to which, among other things, Merger Sub will be merged with and into the Seller with the Seller continuing as the surviving corporation, and each issued and outstanding share (excluding any shares that are held by the Seller as treasury stock or that are owned by Seller or Merger Sub and shares owned by stockholders who are entitled to and who properly exercise appraisal rights, the "Shares") of common stock, $0.001 par value per share, of the Seller (the "Seller Common Stock") will be converted into the right to receive approximately 0.2975 shares of the Company's common stock (the "Company Common Stock"), $0.001 par value per share (in the aggregate, the "Merger Consideration"), on terms and conditions more fully set forth in the Merger Agreement (the "Merger"). We have also been advised that prior to the closing of the Merger, the Company shall issue to its stockholders (i) a cash dividend in the aggregate amount of approximately $19 million and (ii) redeemable convertible notes in the aggregate amount of approximately $37 million (together, the "Dividend").

The Board of Directors of the Company (the "Board") has requested Stifel's opinion, as investment bankers, as to the fairness, from a financial point of view and as of the date hereof, to the Company of the Merger Consideration to be paid by the Company to the holders of Shares in the Merger pursuant to the Merger Agreement (the "Opinion").

In rendering our Opinion, we have, among other things:

(i) Reviewed a draft dated May 10, 2015 of the Merger Agreement, which is the most recent draft made available to Stifel;

(ii) Reviewed and analyzed certain publicly available financial and other information for each of the Company and the Seller, respectively, including equity research, and certain other relevant financial and operating data furnished to Stifel by the management of each of the Company and the Seller, respectively;

(iii) Reviewed and analyzed certain relevant historical financial and operating data concerning the Seller furnished to Stifel by the management of the Seller;

(iv) Reviewed and analyzed certain internal financial analyses, financial projections, reports and other information concerning the Seller prepared by the management of the Seller, including projections for the Seller prepared by the management of the Seller as adjusted and provided to us by management of the Company (the "Seller Projections"), and utilized per instruction of the Company;

(v) Discussed with certain members of the management of the Company the historical and current business operations, financial condition and prospects of the Company and the Seller, including that the Company does not, and does not intend to, engage in any activity that may result in the generation of any revenue, and such other matters we deemed relevant;

(vi) Reviewed and analyzed certain operating results of the Seller as compared to operating results and the reported price and trading histories of certain publicly traded companies we deemed relevant;

(vii) Reviewed and analyzed certain financial terms of the Merger as compared to the publicly available financial terms of certain selected business combinations that we deemed relevant;

(viii) Reviewed and analyzed certain financial terms of certain companies that completed their initial public offering that we deemed relevant;

(ix) Reviewed certain pro forma financial effects of the Merger; and

(x) Reviewed and analyzed such other information and such other factors, and conducted such other financial studies, analyses and investigations, as we deemed relevant for the purposes of our Opinion. In addition, we took into account our assessment of general economic, market and financial conditions and our experience in other transactions, as well as our experience in securities valuations and our general knowledge of the industry in which the Seller operates.

In rendering our Opinion, we have, with your consent, relied upon and assumed, without independent verification, the accuracy and completeness of all of the financial and other information that was provided to Stifel by or on behalf of the Company or the Seller, or that was otherwise reviewed by Stifel, and have not assumed any responsibility for independently verifying any of such information. We have been instructed by the Company, and we have assumed, with your consent, that the only material asset of the Company is its net cash, that no other assets of the Company, including, without limitation, any net operating losses of the Company, have any material value and that the Company does not, and does not intend to, engage in any activity that may result in the generation of any revenue. We have also been instructed by the Company, and have assumed, with your consent, that the Company's net cash at the closing of the Merger will be approximately $35 million. With respect to the financial forecasts supplied to us by the Company regarding the Seller, we have assumed, at the direction of the Company, that they were reasonably prepared on the basis reflecting the best currently available estimates and judgments of the management of the Company and the Seller, as applicable, as to the future operating and financial performance of the Company and the Seller, as applicable, and that they provided a reasonable basis upon which we could form our opinion. Such forecasts and projections were not prepared with the expectation of public disclosure. All such forecasted or projected financial information is based on numerous variables and assumptions that are inherently uncertain, including, without limitation, factors related to general economic and competitive conditions. Accordingly, actual results could vary significantly from those set forth in such forecasted or projected financial information. Stifel has relied on this projected information without independent verification or analysis and does not in any respect assume any responsibility for the accuracy or completeness thereof.

We also assumed that there were no material changes in the assets, liabilities, financial condition, results of operations, business or prospects of either the Company or the Seller since the respective date of the last financial statements of each company made available to us, except, in the case of the Company, for the payment of the Dividend. In reaching our conclusion hereunder, we did not perform a discounted cash flow analysis because projections for a sufficient period of time were not provided to us. We did not make or obtain any independent evaluation, appraisal or physical inspection of either the Company's or the Seller's assets or liabilities, the collateral securing any of such assets or liabilities, or the collectibility of any such assets nor did we review loan or credit files of the Company or the Seller, nor have we been furnished with any such evaluation or appraisal. Estimates of values of companies and assets do not purport to be appraisals or necessarily reflect the prices at which companies or assets may actually be sold. Because such estimates are inherently subject to uncertainty, Stifel assumes no responsibility for their accuracy.

We have assumed, with your consent, that there are no factors that would delay or subject to any adverse conditions any necessary regulatory or governmental approval and that all conditions to the Merger will be satisfied and not waived. In addition, we have assumed that the definitive Merger Agreement will not differ

materially from the draft we reviewed. We have also assumed that the Dividend will be paid to the stockholders of the Company and the Merger will be consummated substantially on the terms and conditions described in the Merger Agreement, without any waiver of material terms or conditions by the Company or any other party and without any anti-dilution or other adjustment to the Merger Consideration, and that obtaining any necessary regulatory approvals or satisfying any other conditions for consummation of the Merger will not have an adverse effect on the Company, the Seller or the Merger. We have assumed that the Merger will be consummated in a manner that complies with the applicable provisions of the Securities Act of 1933, as amended, the Securities Exchange Act of 1934, as amended, and all other applicable federal and state statutes, rules and regulations. We have further assumed that the Company has relied upon the advice of its counsel, independent accountants and other advisors (other than Stifel) as to all legal, financial reporting, tax, accounting and regulatory matters with respect to the Company, the Merger and the Merger Agreement, and we assumed, with your consent, that all such advice was correct.

Our Opinion is limited to whether, as of the date hereof, the Merger Consideration to be paid by the Company to the holders of Shares is fair to the Company, from a financial point of view, and does not address any other terms, aspects or implications of the Merger including, without limitation, the form or structure of the Merger, any consequences of the Merger on the Company, its stockholders, creditors or otherwise, or any terms, aspects or implications of any voting, support, stockholder or other agreements, arrangements or understandings contemplated or entered into in connection with the Merger or otherwise. Our Opinion also does not consider, address or include: (i) any other strategic alternatives currently (or which have been or may be) contemplated by the Board or the Company; (ii) the legal, tax or accounting consequences of the Merger on the Company or the holders of the Company's Common Stock including, without limitation, whether or not the Merger will qualify as a tax-free reorganization pursuant to Section 368 of the Internal Revenue Code; (iii) the fairness of the amount or nature of any compensation to any of the Company's officers, directors or employees, or class of such persons, relative to the consideration to the holders of the Company Common Stock; or (iv) the effect of the Merger on, or the fairness of the consideration to be received by, holders of any class of securities of the Company, or any class of securities of any other party to any transaction contemplated by the Merger Agreement. Furthermore, we are not expressing any opinion herein as to the prices, trading range or volume at which any of the Company's or the Seller's securities will trade following public announcement or consummation of the Merger.

Our Opinion is necessarily based on economic, market, financial and other conditions as they exist, and on the information made available to us by or on behalf of the Company or its advisors, or information otherwise reviewed by Stifel, as of the date of this Opinion. It is understood that subsequent developments may affect the conclusion reached in this Opinion and that Stifel does not have any obligation to update, revise or reaffirm this Opinion, except in accordance with the terms and conditions of Stifel's engagement letter agreement with the Company. Our Opinion is for the information of, and directed to, the Board for its information and assistance in connection with its consideration of the financial terms of the Merger. Our Opinion does not constitute a recommendation to the Board as to how the Board should vote on the Merger or to any stockholder of the Company or the Seller as to how any such stockholder should vote at any stockholders' meeting at which the Merger is considered, or whether or not any stockholder of the Company or the Seller should enter into a voting, stockholders', or affiliates' agreement with respect to the Merger, or exercise any dissenters' or appraisal rights that may be available to such stockholder. In addition, the Opinion does not compare the relative merits of the Merger with any other alternative transactions or business strategies which may have been available to the Company and does not address the underlying business decision of the Board or the Company to proceed with or effect the Merger.

We are not legal, tax, regulatory or bankruptcy advisors. We have not considered any potential legislative or regulatory changes currently being considered or recently enacted by the United States Congress, the various federal banking agencies, the Securities and Exchange Commission (the "SEC"), or any other regulatory bodies,

or any changes in accounting methods or generally accepted accounting principles that may be adopted by the SEC or the Financial Accounting Standards Board, or any changes in regulatory accounting principles that may be adopted by any or all of the federal banking agencies. Our Opinion is not a solvency opinion and does not in any way address the solvency or financial condition of the Company.

Stifel, as part of our investment banking services, is regularly engaged in the independent valuation of businesses and securities in connection with mergers, acquisitions, underwritings, sales and distributions of listed and unlisted securities, private placements and valuations for estate, corporate and other purposes. We have acted as financial advisor to the Company in connection with the Merger and will receive a fee for our services, a substantial portion of which is contingent upon the completion of the Merger (the "Advisory Fee"). We have also acted as financial advisor to the Board and will receive a fee upon the delivery of this Opinion that is not contingent upon consummation of the Merger (the "Opinion Fee"). We will not receive any other significant payment or compensation contingent upon the successful consummation of the Merger. In addition, the Company has agreed to indemnify us for certain liabilities arising out of our engagement. There are no material relationships that existed during the two years prior to the date of this Opinion or that are mutually understood to be contemplated in which any compensation was received or is intended to be received as a result of the relationship between Stifel and any party to the Merger. Stifel may seek to provide investment banking services to the Company or its affiliates in the future, for which we would seek customary compensation. In the ordinary course of business, Stifel and our clients may transact in the equity securities of each of the Company and the Seller and may at any time hold a long or short position in such securities.

Stifel's Fairness Opinion Committee has approved the issuance of this Opinion. Our Opinion may not be published or otherwise used or referred to, nor shall any public reference to Stifel be made, without our prior written consent, except in accordance with the terms and conditions of Stifel's engagement letter agreement with the Company.

Based upon and subject to the foregoing, we are of the opinion that, as of the date hereof, the Merger Consideration to be paid by the Company to the holders of Shares in the Merger pursuant to the Merger Agreement is fair to the Company, from a financial point of view.

Very truly yours,

STIFEL, NICOLAUS & COMPANY, INCORPORATED

Annex C

SECTION 262 OF THE DELAWARE GENERAL CORPORATION LAW

§262 Appraisal rights.

(a) Any stockholder of a corporation of this State who holds shares of stock on the date of the making of a demand pursuant to subsection (d) of this section with respect to such shares, who continuously holds such shares through the effective date of the merger or consolidation, who has otherwise complied with subsection (d) of this section and who has neither voted in favor of the merger or consolidation nor consented thereto in writing pursuant to § 228 of this title shall be entitled to an appraisal by the Court of Chancery of the fair value of the stockholder's shares of stock under the circumstances described in subsections (b) and (c) of this section. As used in this section, the word "stockholder" means a holder of record of stock in a corporation; the words "stock" and "share" mean and include what is ordinarily meant by those words; and the words "depository receipt" mean a receipt or other instrument issued by a depository representing an interest in 1 or more shares, or fractions thereof, solely of stock of a corporation, which stock is deposited with the depository.

(b) Appraisal rights shall be available for the shares of any class or series of stock of a constituent corporation in a merger or consolidation to be effected pursuant to § 251 (other than a merger effected pursuant to § 251(g) of this title and, subject to paragraph (b)(3) of this section, § 251(h) of this title), § 252, § 254, § 255, § 256, § 257, § 258, § 263 or § 264 of this title:

(1) Provided, however, that, except as expressly provided in § 363(b) of this title, no appraisal rights under this section shall be available for the shares of any class or series of stock, which stock, or depository receipts in respect thereof, at the record date fixed to determine the stockholders entitled to receive notice of the meeting of stockholders to act upon the agreement of merger or consolidation, were either: (i) listed on a national securities exchange or (ii) held of record by more than 2,000 holders; and further provided that no appraisal rights shall be available for any shares of stock of the constituent corporation surviving a merger if the merger did not require for its approval the vote of the stockholders of the surviving corporation as provided in § 251(f) of this title.

(2) Notwithstanding paragraph (b)(1) of this section, appraisal rights under this section shall be available for the shares of any class or series of stock of a constituent corporation if the holders thereof are required by the terms of an agreement of merger or consolidation pursuant to §§ 251, 252, 254, 255, 256, 257, 258, 263 and 264 of this title to accept for such stock anything except:

a. Shares of stock of the corporation surviving or resulting from such merger or consolidation, or depository receipts in respect thereof;

b. Shares of stock of any other corporation, or depository receipts in respect thereof, which shares of stock (or depository receipts in respect thereof) or depository receipts at the effective date of the merger or consolidation will be either listed on a national securities exchange or held of record by more than 2,000 holders;

c. Cash in lieu of fractional shares or fractional depository receipts described in the foregoing paragraphs (b)(2)a. and b. of this section; or

d. Any combination of the shares of stock, depository receipts and cash in lieu of fractional shares or fractional depository receipts described in the foregoing paragraphs (b)(2)a., b. and c. of this section.

(3) In the event all of the stock of a subsidiary Delaware corporation party to a merger effected under § 251(h), § 253 or § 267 of this title is not owned by the parent immediately prior to the merger, appraisal rights shall be available for the shares of the subsidiary Delaware corporation.

(4) In the event of an amendment to a corporation's certificate of incorporation contemplated by § 363(a) of this title, appraisal rights shall be available as contemplated by § 363(b) of this title, and the procedures of this

section, including those set forth in subsections (d) and (e) of this section, shall apply as nearly as practicable, with the word “amendment” substituted for the words “merger or consolidation,” and the word “corporation” substituted for the words “constituent corporation” and/or “surviving or resulting corporation.”

(c) Any corporation may provide in its certificate of incorporation that appraisal rights under this section shall be available for the shares of any class or series of its stock as a result of an amendment to its certificate of incorporation, any merger or consolidation in which the corporation is a constituent corporation or the sale of all or substantially all of the assets of the corporation. If the certificate of incorporation contains such a provision, the procedures of this section, including those set forth in subsections (d) and (e) of this section, shall apply as nearly as is practicable.

(d) Appraisal rights shall be perfected as follows:

(1) If a proposed merger or consolidation for which appraisal rights are provided under this section is to be submitted for approval at a meeting of stockholders, the corporation, not less than 20 days prior to the meeting, shall notify each of its stockholders who was such on the record date for notice of such meeting (or such members who received notice in accordance with § 255(c) of this title) with respect to shares for which appraisal rights are available pursuant to subsection (b) or (c) of this section that appraisal rights are available for any or all of the shares of the constituent corporations, and shall include in such notice a copy of this section and, if 1 of the constituent corporations is a nonstock corporation, a copy of § 114 of this title. Each stockholder electing to demand the appraisal of such stockholder’s shares shall deliver to the corporation, before the taking of the vote on the merger or consolidation, a written demand for appraisal of such stockholder’s shares. Such demand will be sufficient if it reasonably informs the corporation of the identity of the stockholder and that the stockholder intends thereby to demand the appraisal of such stockholder’s shares. A proxy or vote against the merger or consolidation shall not constitute such a demand. A stockholder electing to take such action must do so by a separate written demand as herein provided. Within 10 days after the effective date of such merger or consolidation, the surviving or resulting corporation shall notify each stockholder of each constituent corporation who has complied with this subsection and has not voted in favor of or consented to the merger or consolidation of the date that the merger or consolidation has become effective; or

(2) If the merger or consolidation was approved pursuant to § 228, § 251(h), § 253, or § 267 of this title, then either a constituent corporation before the effective date of the merger or consolidation or the surviving or resulting corporation within 10 days thereafter shall notify each of the holders of any class or series of stock of such constituent corporation who are entitled to appraisal rights of the approval of the merger or consolidation and that appraisal rights are available for any or all shares of such class or series of stock of such constituent corporation, and shall include in such notice a copy of this section and, if 1 of the constituent corporations is a nonstock corporation, a copy of § 114 of this title. Such notice may, and, if given on or after the effective date of the merger or consolidation, shall, also notify such stockholders of the effective date of the merger or consolidation. Any stockholder entitled to appraisal rights may, within 20 days after the date of mailing of such notice or, in the case of a merger approved pursuant to § 251(h) of this title, within the later of the consummation of the tender or exchange offer contemplated by § 251(h) of this title and 20 days after the date of mailing of such notice, demand in writing from the surviving or resulting corporation the appraisal of such holder’s shares. Such demand will be sufficient if it reasonably informs the corporation of the identity of the stockholder and that the stockholder intends thereby to demand the appraisal of such holder’s shares. If such notice did not notify stockholders of the effective date of the merger or consolidation, either (i) each such constituent corporation shall send a second notice before the effective date of the merger or consolidation notifying each of the holders of any class or series of stock of such constituent corporation that are entitled to appraisal rights of the effective date of the merger or consolidation or (ii) the surviving or resulting corporation shall send such a second notice to all such holders on or within 10 days after such effective date; provided, however, that if such second notice is sent more than 20 days following the sending of the first notice or, in the case of a merger approved pursuant to § 251(h) of this title, later than the later of the consummation of the tender or exchange offer contemplated by § 251(h) of this title and 20 days following the sending of the first notice, such second notice need only be sent to

each stockholder who is entitled to appraisal rights and who has demanded appraisal of such holder's shares in accordance with this subsection. An affidavit of the secretary or assistant secretary or of the transfer agent of the corporation that is required to give either notice that such notice has been given shall, in the absence of fraud, be prima facie evidence of the facts stated therein. For purposes of determining the stockholders entitled to receive either notice, each constituent corporation may fix, in advance, a record date that shall be not more than 10 days prior to the date the notice is given, provided, that if the notice is given on or after the effective date of the merger or consolidation, the record date shall be such effective date. If no record date is fixed and the notice is given prior to the effective date, the record date shall be the close of business on the day next preceding the day on which the notice is given.

(e) Within 120 days after the effective date of the merger or consolidation, the surviving or resulting corporation or any stockholder who has complied with subsections (a) and (d) of this section hereof and who is otherwise entitled to appraisal rights, may commence an appraisal proceeding by filing a petition in the Court of Chancery demanding a determination of the value of the stock of all such stockholders. Notwithstanding the foregoing, at any time within 60 days after the effective date of the merger or consolidation, any stockholder who has not commenced an appraisal proceeding or joined that proceeding as a named party shall have the right to withdraw such stockholder's demand for appraisal and to accept the terms offered upon the merger or consolidation. Within 120 days after the effective date of the merger or consolidation, any stockholder who has complied with the requirements of subsections (a) and (d) of this section hereof, upon written request, shall be entitled to receive from the corporation surviving the merger or resulting from the consolidation a statement setting forth the aggregate number of shares not voted in favor of the merger or consolidation and with respect to which demands for appraisal have been received and the aggregate number of holders of such shares. Such written statement shall be mailed to the stockholder within 10 days after such stockholder's written request for such a statement is received by the surviving or resulting corporation or within 10 days after expiration of the period for delivery of demands for appraisal under subsection (d) of this section hereof, whichever is later. Notwithstanding subsection (a) of this section, a person who is the beneficial owner of shares of such stock held either in a voting trust or by a nominee on behalf of such person may, in such person's own name, file a petition or request from the corporation the statement described in this subsection.

(f) Upon the filing of any such petition by a stockholder, service of a copy thereof shall be made upon the surviving or resulting corporation, which shall within 20 days after such service file in the office of the Register in Chancery in which the petition was filed a duly verified list containing the names and addresses of all stockholders who have demanded payment for their shares and with whom agreements as to the value of their shares have not been reached by the surviving or resulting corporation. If the petition shall be filed by the surviving or resulting corporation, the petition shall be accompanied by such a duly verified list. The Register in Chancery, if so ordered by the Court, shall give notice of the time and place fixed for the hearing of such petition by registered or certified mail to the surviving or resulting corporation and to the stockholders shown on the list at the addresses therein stated. Such notice shall also be given by 1 or more publications at least 1 week before the day of the hearing, in a newspaper of general circulation published in the City of Wilmington, Delaware or such publication as the Court deems advisable. The forms of the notices by mail and by publication shall be approved by the Court, and the costs thereof shall be borne by the surviving or resulting corporation.

(g) At the hearing on such petition, the Court shall determine the stockholders who have complied with this section and who have become entitled to appraisal rights. The Court may require the stockholders who have demanded an appraisal for their shares and who hold stock represented by certificates to submit their certificates of stock to the Register in Chancery for notation thereon of the pendency of the appraisal proceedings; and if any stockholder fails to comply with such direction, the Court may dismiss the proceedings as to such stockholder.

(h) After the Court determines the stockholders entitled to an appraisal, the appraisal proceeding shall be conducted in accordance with the rules of the Court of Chancery, including any rules specifically governing appraisal proceedings. Through such proceeding the Court shall determine the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation, together

with interest, if any, to be paid upon the amount determined to be the fair value. In determining such fair value, the Court shall take into account all relevant factors. Unless the Court in its discretion determines otherwise for good cause shown, interest from the effective date of the merger through the date of payment of the judgment shall be compounded quarterly and shall accrue at 5% over the Federal Reserve discount rate (including any surcharge) as established from time to time during the period between the effective date of the merger and the date of payment of the judgment. Upon application by the surviving or resulting corporation or by any stockholder entitled to participate in the appraisal proceeding, the Court may, in its discretion, proceed to trial upon the appraisal prior to the final determination of the stockholders entitled to an appraisal. Any stockholder whose name appears on the list filed by the surviving or resulting corporation pursuant to subsection (f) of this section and who has submitted such stockholder's certificates of stock to the Register in Chancery, if such is required, may participate fully in all proceedings until it is finally determined that such stockholder is not entitled to appraisal rights under this section.

(i) The Court shall direct the payment of the fair value of the shares, together with interest, if any, by the surviving or resulting corporation to the stockholders entitled thereto. Payment shall be so made to each such stockholder, in the case of holders of uncertificated stock forthwith, and the case of holders of shares represented by certificates upon the surrender to the corporation of the certificates representing such stock. The Court's decree may be enforced as other decrees in the Court of Chancery may be enforced, whether such surviving or resulting corporation be a corporation of this State or of any state.

(j) The costs of the proceeding may be determined by the Court and taxed upon the parties as the Court deems equitable in the circumstances. Upon application of a stockholder, the Court may order all or a portion of the expenses incurred by any stockholder in connection with the appraisal proceeding, including, without limitation, reasonable attorney's fees and the fees and expenses of experts, to be charged pro rata against the value of all the shares entitled to an appraisal.

(k) From and after the effective date of the merger or consolidation, no stockholder who has demanded appraisal rights as provided in subsection (d) of this section shall be entitled to vote such stock for any purpose or to receive payment of dividends or other distributions on the stock (except dividends or other distributions payable to stockholders of record at a date which is prior to the effective date of the merger or consolidation); provided, however, that if no petition for an appraisal shall be filed within the time provided in subsection (e) of this section, or if such stockholder shall deliver to the surviving or resulting corporation a written withdrawal of such stockholder's demand for an appraisal and an acceptance of the merger or consolidation, either within 60 days after the effective date of the merger or consolidation as provided in subsection (e) of this section or thereafter with the written approval of the corporation, then the right of such stockholder to an appraisal shall cease. Notwithstanding the foregoing, no appraisal proceeding in the Court of Chancery shall be dismissed as to any stockholder without the approval of the Court, and such approval may be conditioned upon such terms as the Court deems just; provided, however that this provision shall not affect the right of any stockholder who has not commenced an appraisal proceeding or joined that proceeding as a named party to withdraw such stockholder's demand for appraisal and to accept the terms offered upon the merger or consolidation within 60 days after the effective date of the merger or consolidation, as set forth in subsection (e) of this section.

(l) The shares of the surviving or resulting corporation to which the shares of such objecting stockholders would have been converted had they assented to the merger or consolidation shall have the status of authorized and unissued shares of the surviving or resulting corporation.

Annex D

FOURTH AMENDED AND RESTATED CERTIFICATE OF INCORPORATION
OF
TARGACEPT, INC.

FOURTH AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF TARGACEPT, INC.

FIRST: The name of the corporation (hereinafter called the "**corporation**") is Targacept, Inc.

SECOND: The address, including street, number, city and county of the registered office of the corporation in the State of Delaware, is 2711 Centreville Road, Suite 400, City of Wilmington 19808, County of New Castle; and the name of the registered agent of the corporation in the State of Delaware at such address is Corporation Service Company.

THIRD: The purpose of the corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of the State of Delaware, as the same now exists or may hereafter be amended.

FOURTH:

1. The total number of shares that the corporation is authorized to issue is One Hundred Five Million (105,000,000), of which: (1) One Hundred Million (100,000,000) shares shall be designated as Common Stock, $0.001 par value per share ("**Common Stock**"); and (2) Five Million (5,000,000) shares shall be designated as Preferred Stock, $0.001 par value per share ("**Preferred Stock**").

2. The board of directors of the corporation (the "**Board**") is authorized, subject to any limitations prescribed by law, to provide for the issuance of shares of Preferred Stock in one or more series, to establish from time to time the number of shares to be included in each such series, to increase or decrease the number of shares of any series subsequent to the issue of shares of that series, but not below the number or shares of such series then outstanding, and to fix the designation, powers, preferences, relative, participating optional or other special rights, and any qualifications, limitations and restrictions of the shares of each such series. In case the number of shares of any series shall be so decreased, the shares constituting such decrease shall resume the status that they had prior to the adoption of the resolution originally fixing the number of shares of such series.

3. Each outstanding share of Common Stock shall entitle the holder thereof to one vote on each matter properly submitted to the stockholders of the corporation for a vote; provided, however, that, except as otherwise required by law, holders of Common Stock shall not be entitled to vote on any amendment (including any certificate of designation relating to any series of Preferred Stock) to this certificate of incorporation that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together as a class with the holders of one or more other such series, to vote thereon by law or pursuant to this certificate of incorporation (including any certificate of designation relating to any series of Preferred Stock).

FIFTH: The corporation is to have perpetual existence.

SIXTH: For the management of the business and for the conduct of the affairs of the corporation, and in further definition, limitation and regulation of the powers of the corporation and of its directors and of its stockholders or any class thereof, it is further provided:

1. The business and the conduct of the affairs of the corporation shall be managed by or under the direction of the Board.

2. Any action required or permitted to be taken by the stockholders of the corporation must be effected at a duly called annual or special meeting of stockholders of the corporation and may not be effected by any written consent by such stockholders.

3. Special meetings of stockholders of the corporation may be called only by the Chairman of the Board, the Chief Executive Officer, the President or the Board acting pursuant to a resolution adopted by a majority of the Whole Board and any power of stockholders to call a special meeting of stockholders is specifically denied. Only such business as shall have been stated in the notice of a special meeting of stockholders shall be considered at such special meeting. For purposes of this certificate of incorporation, the "**Whole Board**" shall mean the total number of directors then fixed in accordance with this certificate of incorporation, whether or not there are any vacancies.

SEVENTH:

1. Subject to any rights of the holders of any series of Preferred Stock to elect additional directors under specified circumstances, the number of directors shall be fixed from time to time exclusively by the Board. The directors, other than those who may be elected by the holders of any series of Preferred Stock under specified circumstances, shall be divided into three classes, as nearly equal in number as possible, with the term of office of the first class to expire at the corporation's first annual meeting of stockholders following the initial classification of the Board upon the effectiveness of this certificate of incorporation, with the term of office of the second class to expire at the corporation's second annual meeting of stockholders following the initial classification of the Board upon the effectiveness of this certificate of incorporation and with the term of office of the third class to expire at the corporation's third annual meeting of stockholders following the initial classification of the Board upon the effectiveness of this certificate of incorporation, and thereafter for each such term to expire at each third succeeding annual meeting of stockholders after such election and with each director to hold office until his or her successor shall have been duly elected and qualified. At each annual meeting of stockholders, directors elected to succeed those directors whose terms expire shall be elected for a term of office to expire at the third succeeding annual meeting of stockholders after their election, with each director to hold office until his or her successor shall have been duly elected and qualified or until his or her death, retirement, resignation or removal.

2. Newly created directorships resulting from any increase in the authorized number of directors or any vacancies in the Board resulting from death, retirement, resignation, removal from office or other cause may be filled only by a majority vote of the directors then in office even though less than a quorum, or by a sole remaining director, and not by the stockholders. In the event of any increase or decrease in the authorized number of directors, (a) each director then serving as such shall nevertheless continue as a director of the class of which he or she is a member until the expiration of his or her current term or his or her prior death, retirement, resignation or removal and (b) the newly created or eliminated directorships resulting from such increase or decrease shall if reasonably possible be apportioned by the Board among the three classes of directors so as to ensure that no one class has more than one director more than any other class. To the extent reasonably possible, consistent with the foregoing rule, any newly created directorships shall be added to those classes whose terms of office are to expire at the latest dates following such allocation and newly eliminated directorships shall be subtracted from those classes whose terms of office are to expire at the earliest dates following such allocation, unless otherwise provided for from time to time by resolution adopted by a majority of the directors then in office, although less than a quorum. In the event of a vacancy in the Board, the remaining directors, except as otherwise provided by law or this certificate of incorporation, may exercise the powers of the full Board until the vacancy is filled. No decrease in the number of directors constituting the Board shall shorten the term of any incumbent director.

3. No election of directors need be by written ballot unless the Bylaws of the corporation so provide.

4. No stockholder will be permitted to cumulate votes at any election of directors.

5. Advance notice of stockholder nominations for the election of directors and of business to be brought by stockholders before any meeting of the stockholders of the corporation shall be given in the manner provided in the Bylaws of the corporation.

6. Subject to the rights of the holders of any series of Preferred Stock then outstanding and except as otherwise provided in this certificate of incorporation or required by law, any director, or all of the directors, may be removed from the Board with or without cause, but only by the affirmative vote of the holders of at least 66 2/3% of the aggregate voting power of the then-outstanding shares of capital stock of the corporation entitled to vote in the election of directors, voting together as a single class.

EIGHTH: The power to adopt, amend or repeal the Bylaws of the corporation may be exercised by the Board. The stockholders shall also have the power to adopt, amend or repeal the Bylaws; provided, however, that, in addition to any vote of the holders of any class or series of stock of the corporation required by law or this certificate of incorporation, the affirmative vote of the holders of at least 66 2/3% of the aggregate voting power of the then-outstanding voting shares of voting stock entitled to vote generally in the election of directors, voting together as a single class, shall be required to adopt, amend or repeal all or any portion of Sections 13 or 14 of Article II, Section 2 of Article III, Article VIII and Section 6 of Article IX of the Bylaws.

NINTH: A director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (a) for any breach of the director's duty of loyalty to the corporation or its stockholders, (b) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (c) under Section 174 of the General Corporation Law of Delaware, or (d) for any transaction from which the director derived an improper personal benefit. If the General Corporation Law of Delaware is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law of Delaware as so amended. Neither any amendment, repeal or modification of this article nor the adoption of any provision of this certificate of incorporation or the Bylaws of the corporation inconsistent with this article shall adversely affect any right or protection of a director of the corporation existing at the time of such amendment, repeal, modification or adoption.

TENTH: The corporation shall, to the fullest extent permitted by the provisions of Section 145 of the General Corporation Law of the State of Delaware, as the same may be amended and supplemented, indemnify any person who is or was a director or officer of the corporation, or is or was serving at the request of the corporation as a director, officer or trustee of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise, from and against any and all of the expenses, liabilities, or other matters referred to in or covered by said section, and the indemnification provided for herein shall not be deemed exclusive of any other rights to which such persons may be entitled under any Bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his or her official capacity and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be a director or officer and shall inure to the benefit of the heirs, executors, and administrators of such a person. In addition, the corporation may, to the extent authorized from time to time by the Board, grant indemnification rights to other employees or agents of the corporation or other persons serving the corporation and such rights may be equivalent to, or greater or less than, those indemnification rights of directors and officers set forth in this article or the Bylaws. Neither any amendment, repeal or modification of this article nor the adoption of any provision of this certificate of incorporation or the Bylaws of the corporation inconsistent with this article shall adversely affect any right or protection of a director or officer of the corporation existing at the time of such amendment, repeal, modification or adoption.

ELEVENTH: From time to time any of the provisions of this certificate of incorporation may be amended, altered or repealed and other provisions authorized by the laws of the State of Delaware at the time in force may be added or inserted in the manner and at the time prescribed by said laws; provided, however, that,

notwithstanding any other provision of this certificate of incorporation, or any provision of law that might otherwise permit a lesser vote or no vote, but in addition to any vote of the holders of any class or series of the stock of this corporation required by law or by this certificate of incorporation, the affirmative vote of the holders of at least 66 2/3% of the voting power of the then-outstanding shares of voting stock entitled to vote generally in the election of directors, voting together as a single class, shall be required to amend or repeal Article SIXTH, Article SEVENTH, Article EIGHTH, Article NINTH, Article TENTH or this Article ELEVENTH. All rights conferred upon stockholders of the corporation by this certificate of incorporation are granted subject to the provisions of this Article ELEVENTH.

Annex E

CERTIFICATE OF AMENDMENT OF
THE FOURTH AMENDED AND RESTATED CERTIFICATE OF INCORPORATION
OF
TARGACEPT, INC.

It is hereby certified that:

1. The name of the corporation (hereinafter called the "Company") is Targacept, Inc. The date of the filing of its Certificate of Incorporation with the Secretary of State of the State of Delaware was March 7, 1997.

The Fourth Amended and Restated Certificate of Incorporation filed on April 18, 2006, as amended, is hereby further amended as follows:

A. To change the capitalization of the Company by striking out the first paragraph of Article IV in its entirety and by substituting in lieu of said first paragraph the following two paragraphs:

"The total number of shares of capital stock which the Company shall have authority to issue is one hundred five million (105,000,000) shares, of which (i) one hundred million (100,000,000) shares shall be a class designated as common stock, par value $0.001 per share (the "Common Stock"), and (ii) five million (5,000,000) shares shall be a class designated as preferred stock, par value $0.001 per share (the "Preferred Stock").

Upon the effectiveness of the Certificate of Amendment to the Fourth Amended and Restated Certificate of Incorporation, to effect a plan of recapitalization of the Common Stock by effecting a 7-for-1 reverse stock split with respect to the issued and outstanding shares of the Common Stock (the "Reverse Stock Split"), without any change in the powers, preferences and rights or qualifications, limitations or restrictions thereof, such that, without further action of any kind on the part of the Company or its stockholders, every seven (7) shares of Common Stock outstanding or held by the Company in its treasury on the date of the filing of the Certificate of Amendment (the "Effective Date") shall be changed and reclassified into one (1) share of Common Stock, $0.001 par value per share, which shares shall be fully paid and nonassessable shares of Common Stock. There shall be no fractional shares issued. A holder of record of Common Stock on the Effective Date who would otherwise be entitled to a fraction of a share shall, in lieu thereof, be entitled to receive a cash payment in an amount equal to the fraction to which the stockholder would otherwise be entitled multiplied by the closing price of the Common Stock, as reported in the Wall Street Journal, on the last trading day prior to the Effective Date (or if such price is not available, the average of the last bid and asked prices of the Common Stock on such day or other price determined by the Company's board of directors)."

B. To change the name of the Company by striking out Article I in its entirety and by substituting in lieu of said Article I the following: "The name of the corporation (hereinafter called the "corporation") is Catalyst Biosciences, Inc.

3. The Amendment of the Fourth Amended and Restated Certificate of Incorporation herein certified has been duly adopted in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

EXECUTED, this day of [ ] 2015.

Targacept, Inc.

By: _____
Dr. Stephen A. Hill
President and Chief Executive Officer

Annex F

TARGACEPT, INC.

2015 STOCK INCENTIVE PLAN

TARGACEPT, INC.

2015 STOCK INCENTIVE PLAN

1. Definitions

In addition to other terms defined herein or in an Award Agreement, the following terms shall have the meanings given below:

(a) Administrator means the Board, and, upon its delegation of all or part of its authority to administer the Plan to the Committee, the Committee.

(b) Affiliate means any Parent or Subsidiary of the Company, and also includes any other business entity which is controlled by, under common control with or controls the Company; provided, however, that the term "Affiliate" shall be construed in a manner in accordance with the registration provisions of applicable federal securities laws if and to the extent required.

(c) Applicable Law means any applicable laws, rules or regulations (or similar guidance), including but not limited to the General Corporation Law of the State of Delaware, the Securities Act, the Exchange Act, the Code and the listing or other rules of any applicable stock exchange.

(d) Award means, individually or collectively, a grant under the Plan of an Option (including an Incentive Option or a Nonqualified Option); a Stock Appreciation Right (including a Related SAR or a Freestanding SAR); a Restricted Award (including a Restricted Stock Award or a Restricted Stock Unit Award); a Performance Award (including a Performance Share Award or a Performance Unit Award); a Phantom Stock Award, an Other Stock-Based Award; a Cash Bonus Award; a Dividend Equivalent Award; and/or any other award granted under the Plan.

(e) Award Agreement means an award agreement (which may be in written or electronic form, in the Administrator's discretion, and which includes any amendment or supplement thereto) between the Company and a Participant specifying the terms, conditions and restrictions of an Award granted to the Participant. An Award Agreement may also state such other terms, conditions and restrictions, including but not limited to terms, conditions and restrictions applicable to shares of Common Stock or any other benefit underlying an Award, as may be established by the Administrator.

(f) Base Price means, with respect to an SAR, the initial price assigned to the SAR.

(g) Board or Board of Directors means the Board of Directors of the Company.

(h) Cash Bonus Award means a cash-based Award granted pursuant to Section 13.

(i) Cause means, unless the Administrator determines otherwise, a Participant's termination of employment or service resulting from the Participant's (i) termination for "Cause" as defined under the Participant's employment, change in control, consulting or other agreement with the Company or an Affiliate, if any, or (ii) if the Participant has not entered into any such agreement (or, if any such agreement does not define "Cause"), then the Participant's termination shall be for "Cause" if termination results due to the Participant's (A) dishonesty; (B) refusal to perform his duties for the Company or an Affiliate; or (C) engaging in fraudulent conduct or conduct that could be materially damaging to the Company without a reasonable good faith belief that such conduct was in the best interest of the Company. The determination of "Cause" shall be made by the Administrator and its determination shall be final and conclusive. Without in any way limiting the effect of the foregoing, for purposes of the Plan and an Award, a Participant's employment or service shall also be deemed to have terminated for Cause if, after the Participant's employment or service has terminated, facts and circumstances are discovered that would have justified, in the opinion of the Administrator, a termination for Cause.

(j) A Change of Control shall (except as may be otherwise required, if at all, under Code Section 409A) be deemed to have occurred on the earliest of the following dates:

(i) The date any entity or person shall have become the beneficial owner of, or shall have obtained voting control over, thirty percent (30%) or more of the total voting power of the Company's then outstanding voting stock;

(ii) The date of the consummation of (A) a merger, consolidation or reorganization of the Company (or similar transaction involving the Company), in which the holders of the Common Stock immediately prior to the transaction have voting control over less than fifty-one percent (51%) of the voting securities of the surviving corporation immediately after such transaction, or (B) the sale or disposition of all or substantially all the assets of the Company; or

(iii) The date there shall have been a change in a majority of the Board of Directors of the Company within a 12-month period unless the nomination for election by the Company's stockholders of each new Director was approved by the vote of two-thirds of the members of the Board (or a committee of the Board, if nominations are approved by a Board committee rather than the Board) then still in office who were in office at the beginning of the 12-month period.

(For the purposes herein, the term "person" shall mean any individual, corporation, partnership, group, association or other person, as such term is defined in Section 13(d)(3) or Section 14(d)(2) of the Exchange Act, other than the Company, a Subsidiary of the Company or any employee benefit plan(s) sponsored or maintained by the Company or any Subsidiary thereof, and the term "beneficial owner" shall have the meaning given the term in Rule 13d-3 under the Exchange Act.)

For the purposes of clarity, a transaction shall not constitute a Change of Control if its principal purpose is to change the state of the Company's incorporation, create a holding company that would be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction or is another transaction of other similar effect.

Notwithstanding the preceding provisions of Section 1(j), in the event that any Awards granted under the Plan are deemed to be deferred compensation subject to (and not exempt from) the provisions of Code Section 409A, then distributions related to such Awards to be made upon a Change of Control may be permitted, in the Administrator's discretion, upon the occurrence of one or more of the following events (as they are defined and interpreted under Code Section 409A): (A) a change in the ownership of the Company; (B) a change in effective control of the Company; or (C) a change in the ownership of a substantial portion of the assets of the Company.

(k) Code means the Internal Revenue Code of 1986, as amended. Any reference herein to a specific Code section shall be deemed to include all related regulations or other guidance with respect to such Code section.

(l) Committee means the Compensation Committee of the Board or other committee of the Board which may be appointed to administer the Plan in whole or in part.

(m) Common Stock means the common stock of Targacept, Inc., $0.001 par value, or any successor securities thereto.

(n) Company means Targacept, Inc., a Delaware corporation, together with any successor thereto.

(o) Covered Employee shall have the meaning given the term in Code Section 162(m).

(p) Director means a member of the Board or of the board of directors of an Affiliate.

(q) Disability shall, except as may be otherwise determined by the Administrator (taking into account any Code Section 409A considerations), as applied to any Participant, having the meaning given in any Award Agreement, employment agreement, change in control agreement, consulting agreement or other similar

agreement, if any, to which the Participant is a party, or, if there is no such agreement (or if such agreement does not define "Disability"), "Disability" shall mean the inability of the Participant to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death, or which has lasted or can be expected to last for a continuous period of not less than 12 months. The Administrator shall have authority to determine if a Disability has occurred.

(r) Dividend Equivalent Awards shall mean a right granted to a Participant pursuant to Section 14 to receive the equivalent value (in cash or shares of Common Stock) of dividends paid on Common Stock.

(s) Effective Date means the effective date of the Plan, as provided in Section 4.

(t) Employee means any person who is an employee of the Company or any Affiliate (including entities which become Affiliates after the Effective Date of the Plan). For this purpose, an individual shall be considered to be an Employee only if there exists between the individual and the Company or an Affiliate the legal and bona fide relationship of employer and employee (taking into account Code Section 409A considerations if and to the extent applicable); provided, however, that, with respect to Incentive Options, "Employee" means any person who is considered an employee of the Company or any Parent or Subsidiary for purposes of Treasury Regulation Section 1.421-1(h) (or any successor provision related thereto).

(u) Exchange Act means the Securities Exchange Act of 1934, as amended.

(v) Fair Market Value per share of the Common Stock shall be established in good faith by the Administrator and, unless otherwise determined by the Administrator, the Fair Market Value shall be determined in accordance with the following provisions: (A) if the shares of Common Stock are listed for trading on The NASDAQ Global Select Market ("Nasdaq") or another national or regional stock exchange, the Fair Market Value shall be the closing sales price per share of the shares on Nasdaq or other principal stock exchange on which such securities are listed on the date an Award is granted or other determination is made (such date of determination being referred to herein as a "valuation date"), or, if there is no transaction on such date, then on the trading date nearest preceding the valuation date for which closing price information is available, and, provided further, if the shares are not listed for trading on Nasdaq or another stock exchange but are regularly quoted on an automated quotation system (including the OTC Bulletin Board and the quotations published by the OTC Markets Group) or by a recognized securities dealer, the Fair Market Value shall be the closing sales price for such shares as quoted on such system or by such securities dealer on the valuation date, but if selling prices are not reported, the Fair Market Value of a share of Common Stock shall be the mean between the high bid and low asked prices for the Common Stock on the valuation date (or, if no such prices were reported on that date, on the last date such prices were reported), as reported in The Wall Street Journal or such other source as the Administrator deems reliable; or (B) if the shares of Common Stock are not listed or reported in any of the foregoing, then the Fair Market Value shall be determined by the Administrator based on such valuation measures or other factors as it deems appropriate. Notwithstanding the foregoing, (i) with respect to the grant of Incentive Options, the Fair Market Value shall be determined by the Administrator in accordance with the applicable provisions of Section 20.2031-2 of the Federal Estate Tax Regulations, or in any other manner consistent with the Code Section 422; and (ii) Fair Market Value shall be determined in accordance with Code Section 409A if and to the extent required.

(w) Freestanding SAR means an SAR that is granted without relation to an Option, as provided in Section 8.

(x) Full Value Award means an Award, other than in the form of an Option, SAR or Other Stock-Based Award, which is settled by the issuance of Common Stock.

(y) Good Reason means, unless the Administrator determines otherwise, in the context of a Change of Control, a Participant's termination of employment or service resulting from the Participant's (i) termination for "Good Reason" as defined under the Participant's employment, change in control, consulting or other agreement

with the Company or an Affiliate, if any, or (ii) if the Participant has not entered into any agreement (or, if any such agreement does not define "Good Reason"), then, a Participant's termination shall be for "Good Reason" if termination results due to any of the following without the Participant's consent: (A) a material reduction in the Participant's base salary as in effect immediately prior to the date of the Change of Control, (B) the assignment to the Participant of duties or responsibilities materially inconsistent with, or a material diminution in, the Participant's position, authority, duties or responsibilities as in effect immediately prior to the Change of Control, or (C) the relocation of the Participant's principal place of employment by more than 50 miles from the location at which the Participant was stationed immediately prior to the Change of Control. Notwithstanding the foregoing, with respect to Directors, unless the Administrator determines otherwise, a Director's termination from service on the Board shall be for "Good Reason" if the Participant ceases to serve as a Director, or, if the Company is not the surviving company in the Change of Control event, a member of the board of directors of the surviving entity, in either case, due to the Participant's failure to be nominated to serve as a director of such entity or the Participant's failure to be elected to serve as a director of such entity, but not due to the Participant's decision not to continue service on the Board of Directors of the Company or the board of directors of the surviving entity, as the case may be. An event or condition that would otherwise constitute "Good Reason" shall constitute Good Reason only if the Company fails to rescind or cure such event or condition within 30 days after receipt from the Participant of written notice of the event which constitutes Good Reason, and Good Reason shall cease to exist for any event or condition described herein on the 60th day following the later of the occurrence or the Participant's knowledge thereof, unless the Participant has given the Company written notice thereof prior to such date. In the context other than a Change of Control, "Good Reason" shall be as defined by the Administrator. The determination of "Good Reason" shall be made by the Administrator and its determination shall be final and conclusive.

(z) Incentive Option means an Option that is designated by the Administrator as an Incentive Option pursuant to Section 7 and intended to meet the requirements of incentive stock options under Code Section 422.

(aa) Independent Contractor means an independent contractor, consultant or advisor providing services (other than capital-raising services) to the Company or an Affiliate.

(bb) Nonqualified Option means an Option granted under Section 7 that is not intended to qualify as an incentive stock option under Code Section 422.

(cc) Option means a stock option granted under Section 7 that entitles the holder to purchase from the Company a stated number of shares of Common Stock at the Option Price, and subject to such terms and conditions, as may be set forth in the Plan or an Award Agreement or established by the Administrator.

(dd) Option Period means the term of an Option, as provided in Section 7(d).

(ee) Option Price means the price at which an Option may be exercised, as provided in Section 7(b).

(ff) Other Stock-Based Award means a right, granted to a Participant under Section 12, that relates to or is valued by referenced to shares of Common Stock or other Awards relating to shares of Common Stock.

(gg) Parent shall mean a "parent corporation," whether now or hereafter existing, as defined in Code Section 424(e).

(hh) Participant means an individual who is an Employee employed by, or a Director or Independent Contractor providing services to, the Company or an Affiliate who satisfies the requirements of Section 6 and is selected by the Administrator to receive an Award under the Plan.

(ii) Performance Award means a Performance Share Award and/or a Performance Unit Award, as provided in Section 10.

(jj) Performance Measures mean one or more performance factors which may be established by the Administrator with respect to an Award. Performance factors may be based on such corporate, business unit or division and/or individual performance factors and criteria as the Administrator in its discretion may deem appropriate; provided, however, that, if and to the extent required under Code Section 162(m) with respect to Awards granted to Covered Employees that are intended to qualify as "performance-based compensation" under Code Section 162(m), such performance factors shall be objective and shall be based upon one or more of the following criteria (as determined by the Administrator in its discretion): (i) cash flow; (ii) return on equity; (iii) return on assets; (iv) earnings per share; (v) achievement of clinical development or regulatory milestones; (vi) operations expense efficiency milestones; (vii) consolidated earnings before or after taxes (including earnings before interest, taxes, depreciation and amortization); (viii) net income; (ix) operating income; (x) book value per share; (xi) return on investment; (xii) return on capital; (xiii) improvements in capital structure; (xiv) expense management; (xv) profitability of an identifiable business unit or product; (xvi) maintenance or improvement of profit margins; (xvii) stock price or total stockholder return; (xviii) market share; (xix) revenues or sales; (xx) costs; (xxi) working capital; (xxii) economic wealth created; (xxiii) strategic business criteria; (xxiv) efficiency ratio(s); (xxv) achievement of division, group, function or corporate financial, strategic or operational goals; and (xxvi) comparisons with stock market indices or performances of metrics of peer companies. In addition, with respect to compensation that is not intended to qualify for the performance-based compensation exception under Code Section 162(m), the Administrator may approve performance objectives based on other criteria, which may or may not be objective. To the extent that Code Section 162(m) is applicable, the Administrator shall, within the time and in the manner prescribed by Code Section 162(m), define in an objective fashion the manner of calculating the Performance Measures it selects to use for Covered Employees during any specific performance period. The foregoing criteria may relate to the Company, one or more of its Affiliates or one or more of its divisions, units, segments, partnerships, joint ventures or minority investments, facilities, product lines or products or any combination of the foregoing. The targeted level or levels of performance with respect to such business criteria may be established at such levels and on such terms as the Administrator may determine, in its discretion, including but not limited to on an absolute basis, in relation to performance in a prior performance period, relative to one or more peer group companies or indices, on a per share and/or share per capita basis, on a pre-tax or after tax basis, and/or any combination thereof. Such performance factors may be adjusted or modified due to extraordinary items, transactions, events or developments, or in recognition of any other unusual or infrequent events affecting the Company or the financial statements of the Company, or in response to changes in Applicable Law, accounting principles or business conditions, in each case as determined by the Administrator (provided that any adjustment or modification involving Covered Employees for compensation that is intended to qualify as "performance-based compensation" under Code Section 162(m) shall be made in an objectively determinable manner and shall be subject to any applicable Code Section 162(m) restrictions).

(kk) Performance Share means an Award granted under Section 10, in an amount determined by the Administrator and specified in an Award Agreement, stated with reference to a specified number of shares of Common Stock, that entitles the holder to receive shares of Common Stock, a cash payment, or a combination of Common Stock and cash (as determined by the Administrator), subject to the terms of the Plan and the terms and conditions established by the Administrator.

(ll) Performance Unit means an Award granted under Section 10, in an amount determined by the Administrator and specified in an Award Agreement, that entitles the holder to receive shares of Common Stock, a cash payment or a combination of Common Stock and cash (as determined by the Administrator), subject to the terms of the Plan and the terms and conditions established by the Administrator.

(mm) Phantom Stock Award means an Award granted under Section 11, entitling a Participant to a payment in cash, shares of Common Stock or a combination of cash and Common Stock (as determined by the Administrator), following the completion of the applicable vesting period and compliance with the terms of the Plan and other terms and conditions established by the Administrator. The unit value of a Phantom Stock Award shall be based on the Fair Market Value of a share of Common Stock.

(nn) Plan means the Targacept, Inc. 2015 Stock Incentive Plan, as it may be hereafter amended and/or restated.

(oo) Prior Plan or Prior Plans means the Targacept, Inc. 2006 Stock Incentive Plan (the "2006 Plan"), the 2000 Equity Incentive Plan of Targacept, Inc. (the "2000 Plan") and any other stock incentive plan maintained by the Company, in each case, as amended and/or restated, for its or an Affiliate's employees, directors and/or independent contractors on or prior to the Effective Date of the Plan.

(pp) Related SAR means an SAR granted under Section 8 that is granted in relation to a particular Option and that can be exercised only upon the surrender to the Company, unexercised, of that portion of the Option to which the SAR relates.

(qq) Restricted Award means a Restricted Stock Award and/or a Restricted Stock Unit Award, as provided in Section 9.

(rr) Restricted Stock Award means shares of Common Stock granted to a Participant under Section 9. Shares of Common Stock subject to a Restricted Stock Award shall cease to be restricted when, in accordance with the terms of the Plan and the terms and conditions established by the Administrator, the shares vest and become transferable and free of substantial risks of forfeiture.

(ss) Restricted Stock Unit means a Restricted Award granted to a Participant pursuant to Section 9 which is settled, if at all, (i) by the delivery of one share of Common Stock for each Restricted Stock Unit, (ii) in cash in an amount equal to the Fair Market Value of one share of Common Stock for each Restricted Stock Unit, or (iii) in a combination of cash and shares equal to the Fair Market Value of one share of Common Stock for each Restricted Stock Unit, as determined by the Administrator. A Restricted Stock Unit represents the promise of the Company to deliver shares of Common Stock, cash or a combination thereof, as applicable, at the end of the applicable restriction period if and only to the extent the Award vests and ceases to be subject to forfeiture, subject to compliance with the terms of the Plan and Award Agreement and any terms and conditions established by the Administrator.

(tt) Retirement shall, except as may be otherwise determined by the Administrator (taking into account any Code Section 409A considerations), as applied to any Participant, have the meaning given in an Award Agreement, employment agreement, change in control agreement, consulting agreement or other similar agreement, if any, to which the Participant is a party, or, if there is no such agreement (or if such agreement does not define "Retirement"), then "Retirement" shall, unless the Administrator determines otherwise, mean retirement in accordance with the retirement policies and procedures established by the Company. The Administrator shall have authority to determine if a Retirement has occurred.

(uu) SAR means a stock appreciation right granted under Section 8 entitling the Participant to receive, with respect to each share of Common Stock encompassed by the exercise of such SAR, the excess, if any, of the Fair Market Value on the date of exercise over the Base Price, subject to the terms of the Plan and Award Agreement and any other terms and conditions established by the Administrator. References to "SARs" include both Related SARs and Freestanding SARs, unless the context requires otherwise.

(vv) Securities Act means the Securities Act of 1933, as amended.

(ww) Subsidiary shall mean a "subsidiary corporation," whether now or hereafter existing, as defined in Code Section 424(f).

(xx) Termination Date means the date of termination of a Participant's employment or service for any reason, as determined by the Administrator (taking into account any Code Section 409A considerations).

2. Purpose

The purposes of the Plan are to encourage and enable selected Employees, Directors and Independent Contractors of the Company and its Affiliates to acquire or to increase their holdings of Common Stock and other equity-based interests in the Company and/or to provide other incentive awards in order to promote a closer identification of their interests with those of the Company and its stockholders, and to provide flexibility to the Company in its ability to motivate, attract and retain the services of Participants upon whose judgment, interest and special effort the successful conduct of its operation largely depends. These purposes may be carried out through the granting of Awards to selected Participants, including the granting of Options in the form of Incentive Stock Options and/or Nonqualified Options; SARs in the form of Freestanding SARs and/or Related SARs; Restricted Awards in the form of Restricted Stock Awards and/or Restricted Stock Units; Performance Awards in the form of Performance Shares and/or Performance Units; Phantom Stock Awards; Other Stock-Based Awards; Cash Bonus Awards; and/or Dividend Equivalent Awards.

3. Administration of the Plan

(a) The Plan shall be administered by the Board of Directors of the Company or, upon its delegation, by the Committee (or a subcommittee thereof). To the extent required under Rule 16b-3 adopted under the Exchange Act, the Committee shall be comprised solely of two or more "non-employee directors," as such term is defined in Rule 16b-3, or as may otherwise be permitted under Rule 16b-3. Further, to the extent required by Code Section 162(m), the Plan shall be administered by a committee comprised of two or more "outside directors" (as such term is defined in Code Section 162(m)) or as may otherwise be permitted under Code Section 162(m). In addition, Committee members shall qualify as "independent directors" under applicable stock exchange rules if and to the extent required. Notwithstanding the foregoing, unless the Board determines otherwise, the Board shall have sole authority to grant Awards to Directors who are not Employees of the Company or its Affiliates (provided, however, that the Committee shall have authority to administer such Awards unless otherwise determined by the Board).

(b) Subject to the provisions of the Plan, the Administrator shall have full and final authority in its discretion to take any action with respect to the Plan including, without limitation, the authority to (i) determine all matters relating to Awards, including selection of individuals to be granted Awards, the types of Awards, the number of shares of Common Stock, if any, subject to an Award, and all terms, conditions, restrictions and limitations of an Award; (ii) prescribe the form or forms of Award Agreements evidencing any Awards granted under the Plan; (iii) establish, amend and rescind rules and regulations for the administration of the Plan; (iv) correct any defect, supply any omission or reconcile any inconsistency in the Plan or in any Award or Award Agreement; and (v) construe and interpret the Plan, Awards and Award Agreements made under the Plan, to interpret rules and regulations for administering the Plan and to make all other determinations deemed necessary or advisable for administering the Plan. In addition, (i) the Administrator shall have the authority, subject to the restrictions contained in Section 3(c) herein, to accelerate the date that any Award which was not otherwise exercisable, vested or earned shall become exercisable, vested or earned in whole or in part without any obligation to accelerate such date with respect to any other Award granted to any recipient; and (ii) the Administrator may in its sole discretion modify or extend the terms and conditions for exercise, vesting or earning of an Award (in each case, taking into account any Code Section 409A considerations). The Administrator may determine that a Participant's rights, payments and/or benefits with respect to an Award (including but not limited to any shares issued or issuable and/or cash paid or payable with respect to an Award) shall be subject to reduction, cancellation, forfeiture or recoupment upon the occurrence of certain specified events, in addition to any otherwise applicable vesting or performance conditions of an Award. Such events may include, but shall not be limited to, termination of employment for Cause, violation of policies of the Company or an Affiliate, breach of non-solicitation, noncompetition, confidentiality or other restrictive covenants that may apply to the Participant, other conduct by the Participant that is determined by the Administrator to be detrimental to the business or reputation of the Company or any Affiliate, and/or other circumstances where such reduction, cancellation, forfeiture or recoupment is required by Applicable Law. In addition, the Administrator shall have the authority

and discretion to establish terms and conditions of Awards (including but not limited to the establishment of subplans) as the Administrator determines to be necessary or appropriate to conform to the applicable requirements or practices of jurisdictions outside of the United States. In addition to action by meeting in accordance with Applicable Law, any action of the Administrator with respect to the Plan may be taken by a written instrument signed by all of the members of the Board or Committee, as appropriate, and any such action so taken by written consent shall be as fully effective as if it had been taken by a majority of the members at a meeting duly held and called. All determinations of the Administrator with respect to the Plan and any Award or Award Agreement will be final and binding on the Company and all persons having or claiming an interest in any Award granted under the Plan. No member of the Board or Committee, as applicable, shall be liable while acting as Administrator for any action or determination made in good faith with respect to the Plan, an Award or an Award Agreement. The members of the Board or Committee, as applicable, shall be entitled to indemnification and reimbursement in the manner and to the fullest extent provided in the Company's certificate of incorporation and/or bylaws and/or pursuant to Applicable Law.

(c) Notwithstanding the provisions of Section 3(b), Awards (other than Other Stock-Based Awards) granted to Employees under the Plan shall be subject to a minimum vesting period of one year (which may include installment vesting within such one-year period as determined by the Administrator); provided, however, that (i) the Administrator may provide for acceleration of vesting of all or a portion of an Award in the event of a Participant's death, Disability or Retirement, or (to the extent provided in Section 15 herein) upon the occurrence of a Change of Control of the Company; (ii) the Administrator may provide for the grant of an Award without a minimum vesting period or may accelerate the vesting of all or a portion of an Award for any reason, but only with respect to Awards for no more than an aggregate of five percent (5%) of the total number of Shares authorized for issuance under the Plan pursuant to Section 5(a) herein, upon such terms and conditions as the Administrator shall determine; and (iii) the Administrator also may provide for the grant of Awards to Participants that have different vesting terms in the case of Other Stock-Based Awards or Awards that are substituted for other equity awards in connection with mergers, consolidations or other similar transactions, Awards that are granted as an inducement to be employed by the Company or an Affiliate or to replace forfeited awards from a former employer, or Awards that are granted in exchange for foregone cash compensation.

(d) Notwithstanding the other provisions of Section 3, the Board may expressly delegate to one or more officers of the Company or a special committee consisting of one or more directors who are also officers of the Company the authority, within specified parameters, to grant Awards to eligible Participants, and to make any or all of the determinations reserved for the Administrator in the Plan and summarized in Section 3(b) with respect to such Awards (subject to any restrictions imposed by Applicable Law and such terms and conditions as may be established by the Administrator); provided, however, that, if and to the extent required by Section 16 of the Exchange Act or Code Section 162(m), the Participant, at the time of said grant or other determination, (i) is not deemed to be an officer or director of the Company within the meaning of Section 16 of the Exchange Act; and (ii) is not deemed to be a Covered Employee as defined under Code Section 162(m). To the extent that the Administrator has delegated authority to grant Awards pursuant to this Section 3(d) to an officer and/or a special committee, references to the "Administrator" shall include references to such officer(s) and/or special committee, subject, however, to the requirements of the Plan, Rule 16b-3, Code Section 162(m) and other Applicable Law.

4. Effective Date

The Effective Date of the Plan shall be August **[—]**, 2015 (the "Effective Date"). Awards may be granted on or after the Effective Date, but no Awards may be granted after August **[—]**, 2025. Awards that are outstanding at the end of the Plan term (or such earlier termination date as may be established by the Board pursuant to Section 17(a)) shall continue in accordance with their terms, unless otherwise provided in the Plan or an Award Agreement.

5. Shares of Stock Subject to the Plan; Award Limitations

(a) *Shares of Stock Subject to the Plan*: Subject to adjustments as provided in Section 5(d), the maximum aggregate number of shares of Common Stock that may be issued pursuant to Awards granted under the Plan

shall not exceed the sum of (i) the lesser of (A) 5,000,000 or (B) such number of shares that remain available under the 2006 Plan for the grant of awards as of the Effective Date of the Plan, plus (ii) any shares subject to an award granted under a Prior Plan, which award is forfeited, cancelled, terminated, expires or lapses for any reason. Shares delivered under the Plan shall be authorized but unissued shares, treasury shares or shares purchased on the open market or by private purchase. The Company hereby reserves sufficient authorized shares of Common Stock to meet the grant of Awards hereunder.

(b) *Award Limitations*: Notwithstanding any provision in the Plan to the contrary, the following limitations shall apply to Awards granted under the Plan, in each case subject to adjustments pursuant to Section 5(d):

(i) The maximum aggregate number of shares of Common Stock that may be issued under the Plan pursuant to the grant of Incentive Options shall not exceed the lesser of (A) 5,000,000 shares or (B) such number of shares that remain available under the 2006 Plan for the grant of awards as of the Effective Date of the Plan;

(ii) In any 12-month period, no Participant may be granted Options and SARs that are not related to an Option for more than 500,000 shares of Common Stock (or the equivalent value thereof based on the Fair Market Value per share of the Common Stock on the date of grant of an Award);

(iii) In any 12-month period, no Participant may be granted Awards other than Options or SARs that are settled in shares of Common Stock for more than 500,000 shares of Common Stock (or the equivalent value thereof based on the Fair Market Value per share of the Common Stock on the date of grant of an Award); provided, however that Cash Bonus Awards shall be governed by the provisions of Section 13 herein.

(iv) Notwithstanding the provisions of Section 5(b)(ii) and (iii) herein, with respect to non-employee Directors, in any 12-month period, no such Director may be granted Awards for more than 150,000 shares of Common Stock (or the equivalent value thereof based on the Fair Market Value per share of Common Stock on the date of grant); provided, however, that any Director cash retainer fees or other fees that are settled in shares of Common Stock shall not be subject to this limitation.

(For purposes of Section 5(b)(ii), (iii) and (iv), an Option and Related SAR shall be treated as a single Award.)

(c) *Additional Share Counting Provisions*. The following provisions shall apply with respect to the share limitations of Section 5(a):

(i) To the extent that an Award is canceled, terminates, expires, is forfeited or lapses for any reason, any unissued or forfeited shares subject to the Award will again be available for issuance pursuant to Awards granted under the Plan.

(ii) Awards (other than SARs) settled in cash shall not be counted against the share limitations stated in Section 5(a) herein.

(iii) Dividends, including dividends paid in shares, or dividend equivalents paid in cash in connection with outstanding Awards, will not be counted towards the share limitations in Section 5(a).

(iv) To the extent that the full number of shares subject to an Award other than an Option or SAR is not issued for any reason, including by reason of failure to achieve maximum performance goals, only the number of shares issued and delivered shall be considered for purposes of determining the number of shares remaining available for issuance pursuant to Awards granted under the Plan.

(v) The following shares of Common Stock may not again be made available for issuance as Awards under the Plan: (A) shares withheld from an Award or delivered by a Participant to satisfy minimum tax withholding requirements for Awards, (B) shares not issued or delivered as a result of the net settlement of an outstanding SAR or Option, (C) shares used to pay the exercise price related to an outstanding Option or (D) shares repurchased on the open market with the proceeds of the Option Price.

(vi) Further, (A) shares issued under the Plan through the settlement, assumption or substitution of outstanding awards granted by another entity or obligations to grant future awards as a condition of or in connection with a merger, acquisition or similar transaction involving the Company acquiring another entity shall not reduce the maximum number of shares available for delivery under the Plan, and (B) available shares under a stockholder approved plan of an acquired company (as appropriately adjusted to reflect the transaction) may be used for Awards under the Plan and will not reduce the maximum number of shares available under the Plan, subject, in the case of both (A) and (B) herein, to applicable stock exchange listing requirements.

(d) *Adjustments; Right to Issue Additional Securities*: If there is any change in the outstanding shares of Common Stock because of a merger, consolidation or reorganization involving the Company, or if the Board of Directors of the Company declares a stock dividend, stock split distributable in shares of Common Stock, other distribution (other than regular or ordinary cash dividends) or reverse stock split, combination or reclassification of the Common Stock, or if there is a similar change in the capital stock structure of the Company affecting the Common Stock (excluding conversion of convertible securities by the Company and/or the exercise of warrants by their holders), then the number of shares of Common Stock reserved for issuance under the Plan shall be correspondingly adjusted, and the Administrator shall make such adjustments to Awards or to any provisions of this Plan as the Administrator deems equitable to prevent dilution or enlargement of Awards or as may otherwise be advisable. Nothing in the Plan, an Award or an Award Agreement shall limit the ability of the Company to issue additional securities (including but not limited to the issuance of other options or other derivative securities, warrants, additional shares or classes of Common Stock, preferred stock and/or other convertible securities).

6. Eligibility

An Award may be granted only to an individual who satisfies all of the following eligibility requirements on the date the Award is granted:

(a) The individual is either (i) an Employee, (ii) a Director or (iii) an Independent Contractor.

(b) With respect to the grant of Incentive Options, the individual is otherwise eligible to participate under this Section 6, is an Employee of the Company or a Parent or Subsidiary and does not own, immediately before the time that the Incentive Option is granted, stock possessing more than 10% of the total combined voting power of all classes of stock of the Company or a Parent or Subsidiary. Notwithstanding the foregoing, an Employee who owns more than 10% of the total combined voting power of all classes of stock of the Company or a Parent or Subsidiary may be granted an Incentive Option if the Option Price is at least 110% of the Fair Market Value of the Common Stock, and the Option Period does not exceed five years. For this purpose, an individual will be deemed to own stock which is attributable to him under Code Section 424(d).

(c) With respect to the grant of substitute awards or assumption of awards in connection with a merger, consolidation, acquisition, reorganization or similar transaction involving the Company or an Affiliate, the recipient is otherwise eligible to receive the Award and the terms of the award are consistent with the Plan and Applicable Law (including, to the extent necessary, the federal securities laws registration provisions, Code Section 409A and Code Section 424(a)).

(d) The individual, being otherwise eligible under this Section 6, is selected by the Administrator as an individual to whom an Award shall be granted (as defined above, a "Participant").

7. Options

(a) *Grant of Options*: Subject to the limitations of the Plan, the Administrator may in its discretion grant Options to such eligible Participants in such numbers, subject to such terms and conditions, and at such times as the Administrator shall determine. Both Incentive Options and Nonqualified Options may be granted under the Plan, as determined by the Administrator; provided, however, that Incentive Options may only be granted to

Employees of the Company or a Parent or Subsidiary. To the extent that an Option is designated as an Incentive Option but does not qualify as such under Code Section 422, the Option (or portion thereof) shall be treated as a Nonqualified Option. An Option may be granted with or without a Related SAR.

(b) *Option Price*: The Option Price per share at which an Option may be exercised shall be established by the Administrator and stated in the Award Agreement evidencing the grant of the Option; provided, that (i) the Option Price of an Option shall be no less than 100% of the Fair Market Value per share of the Common Stock as determined on the date the Option is granted (or 110% of the Fair Market Value with respect to Incentive Options granted to an Employee who owns stock possessing more than 10% of the total combined voting power of all classes of stock of the Company or a Parent or Subsidiary, as provided in Section 6(b)); and (ii) in no event shall the Option Price per share of any Option be less than the par value, if any, per share of the Common Stock. Notwithstanding the foregoing, the Administrator may in its discretion authorize the grant of substitute or assumed options of an acquired entity with an Option Price not equal to 100% of the Fair Market Value of the stock on the date of grant, if the terms of such substitution or assumption otherwise comply, to the extent deemed applicable, with Code Section 409A and/or Code Section 424(a).

(c) *Date of Grant*: An Option shall be considered to be granted on the date that the Administrator acts to grant the Option, or on such later date as may be established by the Administrator in accordance with Applicable Law.

(d) Option Period and Limitations on the Right to Exercise Options:

(i) The Option Period shall be determined by the Administrator at the time the Option is granted and shall be stated in the Award Agreement. The Option Period shall not extend more than 10 years from the date on which the Option is granted (or five years with respect to Incentive Options granted to an Employee who owns stock possessing more than 10% of the total combined voting power of all classes of stock of the Company or a Parent or Subsidiary, as provided in Section 6(b)). Any Option or portion thereof not exercised before expiration of the Option Period shall terminate. The period or periods during which, and the terms and conditions pursuant to which, an Option may vest and become exercisable shall be determined by the Administrator in its discretion, subject to the terms of the Plan (including but not limited to the provisions of Section 3(c) herein).

(ii) An Option may be exercised by giving written notice to the Company in form acceptable to the Administrator at such place and subject to such conditions as may be established by the Administrator or its designee. Such notice shall specify the number of shares to be purchased pursuant to an Option and the aggregate purchase price to be paid therefor and shall be accompanied by payment of such purchase price. Unless an Award Agreement provides otherwise, such payment shall be in the form of cash or cash equivalent; provided that, except where prohibited by the Administrator or Applicable Law (and subject to such terms and conditions as may be established by the Administrator), payment may also be made:

(A) By delivery (by either actual delivery or attestation) of shares of Common Stock owned by the Participant for such time period, if any, as may be determined by the Administrator;

(B) By shares of Common Stock withheld upon exercise;

(C) By delivery of written notice of exercise to the Company and delivery to a broker of written notice of exercise and irrevocable instructions to promptly deliver to the Company the amount of sale or loan proceeds to pay the Option Price;

(D) By such other payment methods as may be approved by the Administrator and which are acceptable under Applicable Law; or

(E) By any combination of the foregoing methods.

Shares delivered or withheld in payment on the exercise of an Option shall be valued at their Fair Market Value on the date of exercise, as determined by the Administrator or its designee.

(iii) The Administrator shall determine the extent, if any, to which a Participant may have the right to exercise an Option following termination of the Participant's employment or service with the Company. Such rights, if any, shall be subject to the sole discretion of the Administrator, shall be stated in the individual Award Agreement, need not be uniform among all Options issued pursuant to this Section 7, and may reflect distinctions based on the reasons for termination of employment or service.

(e) *Notice of Disposition*: If shares of Common Stock acquired upon exercise of an Incentive Option are disposed of within two years following the date of grant or one year following the transfer of such shares to a Participant upon exercise, the Participant shall, promptly following such disposition, notify the Company in writing of the date and terms of such disposition and provide such other information regarding the disposition as the Administrator may reasonably require.

(f) *Limitation on Incentive Options*: In no event shall there first become exercisable by an Employee in any one calendar year Incentive Options granted by the Company or any Parent or Subsidiary with respect to shares having an aggregate Fair Market Value (determined at the time an Incentive Option is granted) greater than $100,000; provided that, if such limit is exceeded, then the first $100,000 of shares to become exercisable in such calendar year will be Incentive Options and the Options (or portion thereof) for shares with a value in excess of $100,000 that first became exercisable in that calendar year will be Nonqualified Options. In the event the Code or the regulations promulgated thereunder are amended after the Effective Date of the Plan to provide for a different limitation on the Fair Market Value of shares permitted to be subject to Incentive Options, then such different limit shall be automatically incorporated herein. To the extent that any Incentive Options are first exercisable by a Participant in excess of the limitation described herein, the excess shall be considered a Nonqualified Option.

(g) *Nontransferability of Options*: Incentive Options shall not be transferable (including by sale, assignment, pledge or hypothecation) other than transfers by will or the laws of intestate succession or, in the Administrator's discretion, such transfers as may otherwise be permitted in accordance with Treasury Regulation Section 1.421-1(b)(2) or Treasury Regulation Section 1.421-2(c) or any successor provisions thereto. Nonqualified Options shall not be transferable (including by sale, assignment, pledge or hypothecation) other than by will or the laws of intestate succession, except for transfers if and to the extent permitted by the Administrator in a manner consistent with the registration provisions of the Securities Act. Except as may be permitted by the preceding, an Option shall be exercisable during the Participant's lifetime only by him or by his guardian or legal representative. The designation of a beneficiary in accordance with the Plan does not constitute a transfer.

8. Stock Appreciation Rights

(a) *Grant of SARs*: Subject to the limitations of the Plan, the Administrator may in its discretion grant SARs to such eligible Participants, in such numbers, upon such terms and at such times as the Administrator shall determine. SARs may be granted to the holder of an Option (a "Related Option") with respect to all or a portion of the shares of Common Stock subject to the Related Option (a "Related SAR") or may be granted separately to an eligible individual (a "Freestanding SAR"). The Base Price per share of an SAR shall be no less than 100% of the Fair Market Value per share of the Common Stock on the date the SAR is granted. Notwithstanding the foregoing, the Administrator may in its discretion authorize the grant of substitute or assumed SARs of an acquired entity with a Base Price per share not equal to at least 100% of the Fair Market Value of the stock on the date of grant, if the terms of such substitution or assumption otherwise comply, to the extent deemed applicable, with Code Section 409A and/or Code Section 424(a). An SAR shall be considered to be granted on the date that the Administrator acts to grant the SAR, or on such other date as may be established by the Administrator in accordance with Applicable Law.

(b) *Related SARs*: A Related SAR may be granted either concurrently with the grant of the Related Option or (if the Related Option is a Nonqualified Option) at any time thereafter prior to the complete exercise, termination, expiration or cancellation of such Related Option. The Base Price of a Related SAR shall be equal to the Option Price of the Related Option. Related SARs shall be exercisable only at the time and to the extent that

the Related Option is exercisable (and may be subject to such additional limitations on exercisability as the Administrator may provide in an Award Agreement), and in no event after the complete termination or full exercise of the Related Option. Notwithstanding the foregoing, a Related SAR that is related to an Incentive Option may be exercised only to the extent that the Related Option is exercisable and only when the Fair Market Value exceeds the Option Price of the Related Option. Upon the exercise of a Related SAR granted in connection with a Related Option, the Option shall be canceled to the extent of the number of shares as to which the SAR is exercised, and upon the exercise of a Related Option, the Related SAR shall be canceled to the extent of the number of shares as to which the Related Option is exercised or surrendered.

(c) *Freestanding SARs*: An SAR may be granted without relationship to an Option (as defined above, a "Freestanding SAR") and, in such case, will be exercisable upon such terms and subject to such conditions as may be determined by the Administrator, subject to the terms of the Plan.

(d) *Exercise of SARs*:

(i) Subject to the terms of the Plan (including but not limited to Section 3(c) herein), SARs shall be vested and exercisable in whole or in part upon such terms and conditions as may be established by the Administrator. The period during which an SAR may be exercisable shall not exceed 10 years from the date of grant or, in the case of Related SARs, such shorter Option Period as may apply to the Related Option. Any SAR or portion thereof not exercised before expiration of the period established by the Administrator shall terminate.

(ii) SARs may be exercised by giving written notice to the Company in form acceptable to the Administrator at such place and subject to such terms and conditions as may be established by the Administrator or its designee. Unless the Administrator determines otherwise, the date of exercise of an SAR shall mean the date on which the Company shall have received proper notice from the Participant of the exercise of such SAR.

(iii) The Administrator shall determine the extent, if any, to which a Participant may have the right to exercise an SAR following termination of the Participant's employment or service with the Company. Such rights, if any, shall be determined in the sole discretion of the Administrator, shall be stated in the individual Award Agreement, need not be uniform among all SARs issued pursuant to this Section 8, and may reflect distinctions based on the reasons for termination of employment or service.

(e) *Payment Upon Exercise*: Subject to the limitations of the Plan, upon the exercise of an SAR, a Participant shall be entitled to receive payment from the Company in an amount determined by multiplying (i) the excess, if any, of the Fair Market Value of a share of Common Stock on the date of exercise of the SAR over the Base Price of the SAR by (ii) the number of shares of Common Stock with respect to which the SAR is being exercised. The consideration payable upon exercise of an SAR shall be paid in cash, shares of Common Stock (valued at Fair Market Value on the date of exercise of the SAR) or a combination of cash and shares of Common Stock, as determined by the Administrator.

(f) *Nontransferability*: Unless the Administrator determines otherwise, SARs shall not be transferable (including by sale, assignment, pledge or hypothecation) other than by will or the laws of intestate succession, except for transfers if and to the extent permitted by the Administrator in a manner consistent with the registration provisions of the Securities Act. Except as may be permitted by the preceding sentence, SARs may be exercised during the Participant's lifetime only by him or by his guardian or legal representative. The designation of a beneficiary in accordance with the Plan does not constitute a transfer.

9. Restricted Awards

(a) *Grant of Restricted Awards*: Subject to the limitations of the Plan, the Administrator may in its discretion grant Restricted Awards to such Participants, for such numbers of shares of Common Stock, upon such terms and at such times as the Administrator shall determine. Such Restricted Awards may be in the form of

Restricted Stock Awards and/or Restricted Stock Units that are subject to certain conditions, which conditions must be met in order for the Restricted Award to vest and be earned (in whole or in part) and no longer subject to forfeiture. Restricted Stock Awards shall be payable in shares of Common Stock. Restricted Stock Units shall be payable in cash or shares of Common Stock, or partly in cash and partly in shares of Common Stock, in accordance with the terms of the Plan and the discretion of the Administrator. Subject to the provisions of Section 3(c) herein, the Administrator shall determine the nature, length and starting date of the period, if any, during which a Restricted Award may be earned (the "Restriction Period"), and shall determine the conditions which must be met in order for a Restricted Award to be granted or to vest or be earned (in whole or in part), which conditions may include, but are not limited to, payment of a stipulated purchase price, attainment of performance objectives, continued service or employment for a certain period of time, a combination of attainment of performance objectives and continued service, Retirement, Disability, death or any combination of such conditions. In the case of Restricted Awards based upon performance criteria, or a combination of performance criteria and continued service, the Administrator shall determine the Performance Measures applicable to such Restricted Awards (subject to Section 1(jj)).

(b) *Vesting of Restricted Awards*: Subject to the terms of the Plan (and taking into account any Code Section 409A considerations), the Administrator shall have sole authority to determine whether and to what degree Restricted Awards have vested and been earned and are payable and to establish and interpret the terms and conditions of Restricted Awards.

(c) *Termination of Employment or Service; Forfeiture*: Unless the Administrator determines otherwise, if the employment or service of a Participant shall be terminated for any reason (whether by the Company or the Participant and whether voluntary or involuntary) and all or any part of a Restricted Award has not vested or been earned pursuant to the terms of the Plan and related Award Agreement, such Award, to the extent not then vested or earned, shall be forfeited immediately upon such termination and the Participant shall have no further rights with respect thereto.

(d) *Share Certificates; Escrow*: Unless the Administrator determines otherwise, a certificate or certificates representing the shares of Common Stock subject to a Restricted Stock Award shall be issued in the name of the Participant (or, in the case of uncertificated shares, other written evidence of ownership in accordance with Applicable Law shall be provided) after the Award has been granted. Notwithstanding the foregoing, the Administrator may require that (i) a Participant deliver the certificate(s) (or other instruments) for such shares to the Administrator or its designee to be held in escrow until the Restricted Stock Award vests and is no longer subject to a substantial risk of forfeiture (in which case the shares will be promptly released to the Participant) or is forfeited (in which case the shares shall be returned to the Company); and/or (ii) a Participant deliver to the Company a stock power, endorsed in blank (or similar instrument), relating to the shares subject to the Restricted Stock Award which are subject to forfeiture. Unless the Administrator determines otherwise, a certificate or certificate representing shares of Common Stock issuable pursuant to a Restricted Stock Unit shall be issued in the name of the Participant (or, in the case of uncertificated shares, other written evidence of ownership in accordance with Applicable Law shall be provided) promptly after the Award (or portion thereof) has vested and is distributable.

(e) *Nontransferability*: Unless the Administrator determines otherwise, Restricted Awards that have not vested shall not be transferable (including by sale, assignment, pledge or hypothecation) other than transfers by will or the laws of intestate succession, and the recipient of a Restricted Award shall not sell, transfer, assign, pledge or otherwise encumber shares subject to the Award until the Restriction Period has expired and until all conditions to vesting have been met. The designation of a beneficiary in accordance with the Plan does not constitute a transfer.

10. Performance Awards

(a) *Grant of Performance Awards*: Subject to the terms of the Plan, the Administrator may in its discretion grant Performance Awards to such eligible Participants upon such terms and conditions and at such times as the Administrator shall determine. Performance Awards may be in the form of Performance Shares and/or Performance Units. An Award of a Performance Share is a grant of a right to receive shares of Common Stock,

the cash value thereof, or a combination thereof (in the Administrator's discretion), which is contingent upon the achievement of performance or other objectives during a specified period and which has a value on the date of grant equal to the Fair Market Value of a share of Common Stock. An Award of a Performance Unit is a grant of a right to receive shares of Common Stock or a designated dollar value amount of Common Stock which is contingent upon the achievement of performance or other objectives during a specified period, and which has an initial value determined in a dollar amount established by the Administrator at the time of grant. Subject to Section 5(b), the Administrator shall have discretion to determine the number of Performance Units and/or Performance Shares granted to any Participant. Subject to the provisions of Section 3(c) herein, the Administrator shall determine the nature, length and starting date of the period during which a Performance Award may be earned (the "Performance Period"), and shall determine the conditions which must be met in order for a Performance Award to be granted or to vest or be earned (in whole or in part), which conditions may include but are not limited to payment of a stipulated purchase price, attainment of performance objectives, continued service or employment for a certain period of time, or a combination of any such conditions. Subject to Section 1(jj), the Administrator shall determine the Performance Measures to be used in valuing Performance Awards.

(b) *Earning of Performance Awards*: Subject to the terms of the Plan (and taking into account any Code Section 409A considerations), the Administrator shall have sole authority to determine whether and to what degree Performance Awards have been earned and are payable and to interpret the terms and conditions of Performance Awards and the provisions of this Section 10.

(c) *Form of Payment*: Payment of the amount to which a Participant shall be entitled upon earning a Performance Award shall be made in cash, shares of Common Stock, or a combination of cash and shares of Common Stock, as determined by the Administrator in its sole discretion. Payment may be made in a lump sum or upon such terms as may be established by the Administrator (taking into account any Code Section 409A considerations).

(d) *Termination of Employment or Service; Forfeiture*: Unless the Administrator determines otherwise (taking into account any Code Section 409A considerations), if the employment or service of a Participant shall terminate for any reason (whether by the Company or the Participant and whether voluntary or involuntary) and the Participant has not earned all or part of a Performance Award pursuant to the terms of the Plan and related Award Agreement, such Award, to the extent not then earned, shall be forfeited immediately upon such termination and the Participant shall have no further rights with respect thereto.

(e) *Nontransferability:* Unless the Administrator determines otherwise, Performance Awards which have not been earned shall not be transferable (including by sale, assignment, pledge or hypothecation) other than transfers by will or the laws of intestate succession, and the recipient of a Performance Award shall not sell, transfer, assign, pledge or otherwise encumber any shares or any other benefit subject to the Award until the Performance Period has expired and the conditions to earning the Award have been met. The designation of a beneficiary in accordance with the Plan does not constitute a transfer.

11. Phantom Stock Awards

(a) *Grant of Phantom Stock Awards*: Subject to the terms of the Plan, the Administrator may in its discretion grant Phantom Stock Awards to such eligible Participants, in such numbers, upon such terms and at such times as the Administrator shall determine. A Phantom Stock Award is an Award to a Participant of a number of hypothetical share units with respect to shares of Common Stock, with a value based on the Fair Market Value of a share of Common Stock.

(b) *Vesting of Phantom Stock Awards*: Subject to the terms of the Plan (and taking into account any Code Section 409A considerations), the Administrator shall have sole authority to determine whether and to what degree Phantom Stock Awards have vested and are payable and to interpret the terms and conditions of Phantom Stock Awards.

(c) *Termination of Employment or Service; Forfeiture*: Unless the Administrator determines otherwise (taking into account any Code Section 409A considerations), if the employment or service of a Participant shall be terminated for any reason (whether by the Company or the Participant and whether voluntary or involuntary) and all or any part of a Phantom Stock Award has not vested and become payable pursuant to the terms of the Plan and related Award Agreement, such Award, to the extent not then vested or earned, shall be forfeited immediately upon such termination and the Participant shall have no further rights with respect thereto.

(d) *Payment of Phantom Stock Awards*: Upon vesting of all or a part of a Phantom Stock Award and satisfaction of such other terms and conditions as may be established by the Administrator, the Participant shall be entitled to a payment of an amount equal to the Fair Market Value of one share of Common Stock with respect to each such Phantom Stock unit which has vested and is payable. Payment may be made, in the discretion of the Administrator, in cash or in shares of Common Stock valued at their Fair Market Value on the applicable vesting date or dates (or other date or dates determined by the Administrator), or in a combination thereof. Payment may be made in a lump sum or upon such terms as may be established by the Administrator (taking into account any Code Section 409A considerations).

(e) *Nontransferability*: Unless the Administrator determines otherwise, (i) Phantom Stock Awards shall not be transferable (including by sale, assignment, pledge or hypothecation) other than transfers by will or the laws of intestate succession and (ii) shares of Common Stock (if any) subject to a Phantom Stock Award may not be sold, transferred, assigned, pledged or otherwise encumbered until the Phantom Stock Award has vested and all other conditions established by the Administrator have been met. The designation of a beneficiary in accordance with the Plan does not constitute a transfer.

12. Other Stock-Based Awards

The Administrator shall have the authority to grant Other Stock-Based Awards to one or more eligible Participants. Such Other Stock-Based Awards may be valued in whole or in part by reference to, or otherwise based on or related to, shares of Common Stock or Awards for shares of Common Stock, including but not limited to Other Stock-Based Awards granted in lieu of bonus, salary or other compensation, Other Stock-Based Awards granted with vesting or performance conditions, and/or Other Stock-Based Awards granted without being subject to vesting or performance conditions. Subject to the provisions of the Plan, the Administrator shall determine the number of shares of Common Stock to be awarded to a Participant under (or otherwise related to) such Other Stock-Based Awards; whether such Other Stock-Based Awards shall be settled in cash, shares of Common Stock or a combination of cash and shares of Common Stock; and the other terms and conditions of such Awards. Unless the Administrator determines otherwise, (i) Other Stock-Based Awards shall not be transferable (including by sale, assignment, pledge or hypothecation) other than transfers by will or the laws of intestate succession, and (ii) shares of Common Stock (if any) subject to an Other Stock-Based Award may not be sold, transferred, assigned, pledged or otherwise encumbered until the Other Stock-Based Award has vested and all other conditions established by the Administrator have been met. The designation of a beneficiary in accordance with the Plan does not constitute a transfer.

13. Cash Bonus Awards

The Administrator may, in its discretion, grant Cash Bonus Awards under the Plan to one or more eligible Participants. Cash Bonus Awards shall be subject to performance conditions as described in Section 1(jj) above and, to the extent such Cash Bonus Awards are granted to Covered Employees and intended to qualify as “performance-based compensation” under Code Section 162(m), shall be subject to the requirements of Code Section 162(m), including without limitation, the establishment of Performance Measures and certification of performance by the Committee as provided in Section 1(jj) and Section 20(c). The Administrator also shall have authority to modify, reduce or eliminate any Cash Bonus Award. In addition, the aggregate amount of compensation granted to any one Participant in any 12-month period in respect of all Cash Bonus Awards

granted under the Plan and payable only in cash (and exclusive of Restricted Stock Unit Awards, Phantom Stock Awards, SARs or other equity-based Awards settled in cash, which are subject to the Award limitations stated in Section 5(b) herein) shall not exceed $1,000,000.

14. Dividends and Dividend Equivalents

The Administrator may, in its sole discretion, provide that Awards other than Options and SARs earn dividends or dividend equivalents; provided, however, that dividends and dividend equivalents, if any, on unearned or unvested performance-based Awards shall not be paid (even if accrued) unless and until the underlying Award (or portion thereof) has vested and/or been earned. Such dividends or dividend equivalents may be paid currently or may be credited to a Participant's account. Any crediting of dividends or dividend equivalents may be subject to such additional restrictions and conditions as the Administrator may establish, including reinvestment in additional shares of Common Stock or share equivalents. Notwithstanding the other provisions herein, any dividends or dividend equivalents related to an Award shall be structured in a manner so as to avoid causing the Award and related dividends or dividend equivalents to be subject to Code Section 409A or shall otherwise be structured so that the Award and dividends or dividend equivalents are in compliance with Code Section 409A.

15. Change of Control

Notwithstanding any other provision in the Plan to the contrary (and unless an individual employment agreement in effect prior to the Effective Date provides otherwise), the following provisions shall apply in the event of a Change of Control:

(a) To the extent that the successor or surviving company in the Change of Control event does not assume or substitute for an Award (or in which the Company is the ultimate parent corporation and does not continue the Award) on substantially similar terms or with substantially equivalent economic benefits (as determined by the Administrator) as Awards outstanding under the Plan immediately prior to the Change of Control event, (i) all outstanding Options and SARs shall become fully vested and exercisable, whether or not then otherwise vested and exercisable; and (ii) any restrictions, including but not limited to the Restriction Period, Performance Period and/or performance criteria applicable to any outstanding Award other than Options or SARs shall be deemed to have been met, and such Awards shall become fully vested, earned and payable to the fullest extent of the original grant of the applicable Award (or, in the case of performance-based Awards the earning of which is based on attaining a target level of performance, such Awards shall be deemed earned at target).

(b) Further, in the event that an Award is substituted, assumed or continued as provided in Section 15(a) herein, the Award will nonetheless become vested (and, in the case of Options and SARs, exercisable) in full and any restrictions, including but not limited to the Restriction Period, Performance Period and/or performance criteria applicable to any outstanding Award other than Options or SARs shall be deemed to have been met, and such Awards shall become fully vested, earned and payable to the fullest extent of the original award (or, in the case of performance-based Awards the earning of which is based on attaining a target level of performance, such Awards shall be deemed earned at target), if the employment or service of the Participant is terminated within six months before (in which case vesting shall not occur until the effective date of the Change of Control) or one year (or such other period after a Change of Control as may be stated in a Participant's employment agreement, change in control agreement or similar agreement, if applicable) after the effective date of a Change of Control if such termination of employment or service (i) is by the Company not for Cause or (ii) if an Award Agreement so provides, is by the Participant for Good Reason. For clarification, for the purposes of this Section 15, the "Company" shall include any successor to the Company.

16. Withholding

The Company shall withhold all required local, state, federal, foreign and other taxes and any other amount required to be withheld by any governmental authority or law from any amount payable in cash with respect to an Award. Prior to the delivery or transfer of any certificate for shares or any other benefit conferred under the Plan, the Company shall require any Participant or other person to pay to the Company in cash the amount of any tax

or other amount required by any governmental authority to be withheld and paid over by the Company to such authority for the account of such recipient. Notwithstanding the foregoing, the Administrator may in its discretion establish procedures to permit a recipient to satisfy such obligation in whole or in part, and any local, state, federal, foreign or other income tax obligations relating to such an Award, by electing (the "election") to have the Company withhold shares of Common Stock from the shares to which the recipient is otherwise entitled. The number of shares to be withheld shall have a Fair Market Value as of the date that the amount of tax to be withheld is determined as nearly equal as possible to (but not exceeding) the amount of such obligations being satisfied. Each election must be made in writing to the Administrator in accordance with election procedures established by the Administrator.

17. Amendment and Termination of the Plan and Awards

(a) *Amendment and Termination of Plan*: The Plan may be amended, altered, suspended and/or terminated at any time by the Board; provided, that (i) approval of an amendment to the Plan by the stockholders of the Company shall be required to the extent, if any, that stockholder approval of such amendment is required by Applicable Law; and (ii) except for adjustments made pursuant to Section 5(d) the Company may not, without obtaining stockholder approval, (A) amend the terms of outstanding Options or SARs to reduce the Option Price or Base Price of such outstanding Options or SARs; (B) exchange outstanding Options or SARs for cash, for Options or SARs with an Option Price or Base Price that is less than the Option Price or Base Price of the original Option or SAR, or for other equity awards at a time when the original Option or SAR has an Option Price or Base Price, as the case may be, above the Fair Market Value of the Common Stock; or (C) take other action with respect to Options or SARs that would be treated as a repricing under the rules of the principal stock exchange on which shares of the Common Stock are listed.

(b) *Amendment and Termination of Awards*: The Administrator may amend, alter, suspend and/or terminate any Award granted under the Plan, prospectively or retroactively, but (except as otherwise provided in Section 17(c)) such amendment, alteration, suspension or termination of an Award shall not, without the written consent of the recipient of an outstanding Award, materially adversely affect the rights of the recipient with respect to the Award.

(c) *Amendments to Comply with Applicable Law*: Notwithstanding Section 17(a) and Section 17(b) herein, the following provisions shall apply:

(i) The Administrator shall have unilateral authority to amend the Plan and any Award (without Participant consent) to the extent necessary to comply with Applicable Law or changes to Applicable Law (including but in no way limited to Code Section 409A, Code Section 422 and federal securities laws).

(ii) The Administrator shall have unilateral authority to make adjustments to the terms and conditions of Awards in recognition of unusual or nonrecurring events affecting the Company or any Affiliate, or the financial statements of the Company or any Affiliate, or of changes in Applicable Law, or accounting principles, if the Administrator determines that such adjustments are appropriate in order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the Plan or necessary or appropriate to comply with applicable accounting principles or Applicable Law.

18. Restrictions on Awards and Shares; Compliance with Applicable Law

(a) *General*: As a condition to the issuance and delivery of Common Stock hereunder, or the grant of any benefit pursuant to the Plan, the Company may require a Participant or other person at any time and from time to time to become a party to an Award Agreement, other agreement(s) restricting the transfer, purchase, repurchase and/or voting of shares of Common Stock of the Company, and any employment agreements, consulting agreements, noncompetition agreements, confidentiality agreements, nonsolicitation agreements, nondisparagement agreements or other agreements imposing such restrictions as may be required by the Company. In addition, without in any way limiting the effect of the foregoing, each Participant or other holder of

shares issued under the Plan shall be permitted to transfer such shares only if such transfer is in accordance with the Plan, the Award Agreement, and any other applicable agreements and Applicable Law. The acquisition of shares of Common Stock under the Plan by a Participant or any other holder of shares shall be subject to, and conditioned upon, the agreement of the Participant or other holder of such shares to the restrictions described in the Plan, the Award Agreement and any other applicable agreements and Applicable Law.

(b) *Compliance with Applicable Laws, Rules and Regulations*: The Company may impose such restrictions on Awards, shares of Common Stock and any other benefits underlying Awards hereunder as it may deem advisable, including without limitation restrictions under the federal securities laws, the requirements of any stock exchange or similar organization and any blue sky, state or foreign securities or other laws applicable to such securities. Notwithstanding any other Plan provision to the contrary, the Company shall not be obligated to issue, deliver or transfer shares of Common Stock under the Plan, make any other distribution of benefits under the Plan, or take any other action, unless such delivery, distribution or action is in compliance with Applicable Law (including but not limited to the requirements of the Securities Act). The Company will be under no obligation to register shares of Common Stock or other securities with the Securities and Exchange Commission or to effect compliance with the exemption, registration, qualification or listing requirements of any state securities laws, stock exchange or similar organization, and the Company will have no liability for any inability or failure to do so. The Company may cause a restrictive legend or legends to be placed on any certificate issued pursuant to an Award hereunder in such form as may be prescribed from time to time by Applicable Law or as may be advised by legal counsel.

19. No Right or Obligation of Continued Employment or Service or to Awards; Compliance with the Plan

Neither the Plan, an Award, an Award Agreement nor any other action related to the Plan shall confer upon a Participant any right to continue in the employ or service of the Company or an Affiliate as an Employee, Director or Independent Contractor, or to interfere in any way with the right of the Company or an Affiliate to terminate the Participant's employment or service at any time. Except as otherwise provided in the Plan, an Award Agreement or as may be determined by the Administrator, all rights of a Participant with respect to an Award shall terminate upon the termination of the Participant's employment or service. In addition, no person shall have any right to be granted an Award, and the Company shall have no obligation to treat Participants or Awards uniformly. By participating in the Plan, each Participant shall be deemed to have accepted all of the conditions of the Plan and the terms and conditions of any rules and regulations adopted by the Administrator and shall be fully bound thereby. Any Award granted hereunder is not intended to be compensation of a continuing or recurring nature, or part of a Participant's normal or expected compensation, and in no way represents any portion of a Participant's salary, compensation, or other remuneration for purposes of pension benefits, severance, redundancy, resignation or any other purpose.

20. General Provisions

(a) *Stockholder Rights*: Except as otherwise determined by the Administrator (and subject to the provisions of Section 9(d) regarding Restricted Awards), a Participant and his legal representative, legatees or distributees shall not be deemed to be the holder of any shares of Common Stock subject to an Award and shall not have any rights of a stockholder unless and until certificates for such shares have been issued and delivered to him or them under the Plan. A certificate or certificates for shares of Common Stock acquired upon exercise of an Option or SAR shall be issued in the name of the Participant or his beneficiary and distributed to the Participant or his beneficiary (or, in the case of uncertificated shares, other written notice of ownership in accordance with Applicable Law shall be provided) as soon as practicable following receipt of notice of exercise and, with respect to Options, payment of the Option Price (except as may otherwise be determined by the Company in the event of payment of the Option Price pursuant to Section 7(d)(ii)(C)). Except as otherwise provided in Section 9(d) regarding Restricted Stock Awards or otherwise determined by the Administrator, a certificate for any shares of Common Stock issuable pursuant to a Restricted Award, Performance Award, Phantom Stock Award or Other Stock-Based Award shall be issued in the name of the

Participant or his beneficiary and distributed to the Participant or his beneficiary (or, in the case of uncertificated shares, other written notice of ownership in accordance with Applicable Law shall be provided) after the Award (or portion thereof) has vested and been earned.

(b) *Section 16(b) Compliance*: To the extent that any Participants in the Plan are subject to Section 16(b) of the Exchange Act, it is the general intention of the Company that transactions under the Plan shall comply with Rule 16b-3 under the Exchange Act and that the Plan shall be construed in favor of such Plan transactions meeting the requirements of Rule 16b-3 or any successor rules thereto. Notwithstanding anything in the Plan to the contrary, the Administrator, in its sole and absolute discretion, may bifurcate the Plan so as to restrict, limit or condition the use of any provision of the Plan to Participants who are officers or directors subject to Section 16 of the Exchange Act without so restricting, limiting or conditioning the Plan with respect to other Participants.

(c) *Code Section 162(m) Performance-Based Compensation*. To the extent to which Code Section 162(m) is applicable, the Company intends that compensation paid under the Plan to Covered Employees will, to the extent practicable, constitute "qualified performance-based compensation" within the meaning of Code Section 162(m), unless otherwise determined by the Administrator. Accordingly, Awards granted to Covered Employees which are intended to qualify for the performance-based exception under Code Section 162(m) shall be deemed to include any such additional terms, conditions, limitations and provisions as are necessary to comply with the performance-based compensation exemption of Code Section 162(m), unless the Administrator, in its discretion, determines otherwise.

(d) *Unfunded Plan; No Effect on Other Plans*:

(i) The Plan shall be unfunded, and the Company shall not be required to create a trust or segregate any assets that may at any time be represented by Awards under the Plan. The Plan shall not establish any fiduciary relationship between the Company and any Participant or other person. Neither a Participant nor any other person shall, by reason of the Plan, acquire any right in or title to any assets, funds or property of the Company or any Affiliate, including, without limitation, any specific funds, assets or other property which the Company or any Affiliate, in their discretion, may set aside in anticipation of a liability under the Plan. A Participant shall have only a contractual right to shares of Common Stock or other amounts, if any, payable under the Plan, unsecured by any assets of the Company or any Affiliate. Nothing contained in the Plan shall constitute a guarantee that the assets of such entities shall be sufficient to pay any benefits to any person.

(ii) The amount of any compensation deemed to be received by a Participant pursuant to an Award shall not constitute compensation with respect to which any other employee benefits of such Participant are determined, including, without limitation, benefits under any bonus, pension, profit sharing, life insurance or salary continuation plan, except as otherwise specifically provided by the terms of such plan or as may be determined by the Administrator.

(iii) The adoption of the Plan shall not affect any other stock incentive or other compensation plans in effect for the Company or any Affiliate, nor shall the Plan preclude the Company from establishing any other forms of stock incentive or other compensation for employees or service providers of the Company or any Affiliate.

(e) *Governing Law*: The Plan shall be governed by and construed in accordance with the laws of the State of Delaware, without regard to the conflict of laws provisions of any state, and in accordance with applicable federal laws of the United States.

(f) *Beneficiary Designation*: The Administrator may, in its discretion, permit a Participant to designate in writing a person or persons as beneficiary, which beneficiary shall be entitled to receive settlement of Awards (if any) to which the Participant is otherwise entitled in the event of death. In the absence of such designation by a Participant, and in the event of the Participant's death, the estate of the Participant shall be treated as beneficiary for purposes of the Plan, unless the Administrator determines otherwise. The Administrator shall have discretion

to approve and interpret the form or forms of such beneficiary designation. A beneficiary, legal guardian, legal representative or other person claiming any rights pursuant to the Plan is subject to all terms and conditions of the Plan and any Award Agreement applicable to the Participant, except to the extent that the Plan and/or Award Agreement provide otherwise, and to any additional restrictions deemed necessary or appropriate by the Administrator.

(g) *Gender and Number*: Except where otherwise indicated by the context, words in any gender shall include any other gender, words in the singular shall include the plural and words in the plural shall include the singular.

(h) *Severability*: If any provision of the Plan shall be held illegal or invalid for any reason, such illegality or invalidity shall not affect the remaining parts of the Plan, and the Plan shall be construed and enforced as if the illegal or invalid provision had not been included.

(i) *Rules of Construction*: Headings are given to the sections of the Plan solely as a convenience to facilitate reference. The reference to any statute, regulation or other provision of law shall (unless the Administrator determines otherwise) be construed to refer to any amendment to or successor of such provision of law.

(j) *Successors and Assigns*: The Plan shall be binding upon the Company, its successors and assigns, and Participants, their executors, administrators and permitted transferees and beneficiaries.

(k) *Award Agreement:* The grant of any Award under the Plan shall be evidenced by an Award Agreement between the Company and the Participant. Such Award Agreement may state terms, conditions and restrictions applicable to the Award and any may state such other terms, conditions and restrictions, including but not limited to terms, conditions and restrictions applicable to shares of Common Stock (or other benefits) subject to an Award, as may be established by the Administrator.

(l) *Right of Offset:* Notwithstanding any other provision of the Plan or an Award Agreement, the Company may at any time (subject to any Code Section 409A considerations) reduce the amount of any payment or benefit otherwise payable to or on behalf of a Participant by the amount of any obligation of the Participant to or on behalf of the Company or an Affiliate that is or becomes due and payable.

(m) *Uncertified Shares*: Notwithstanding anything in the Plan to the contrary, to the extent the Plan provides for the issuance of stock certificates to reflect the issuance of shares of Common Stock, the issuance may, in the Company's discretion, be effected on a non-certificated basis, to the extent not prohibited by the Company's certificate of incorporation or bylaws or by Applicable Law (including but not limited to applicable state corporate law and the applicable rules of any stock exchange on which the Common Stock may be traded).

(n) *Income and Other Taxes:* Participants are solely responsible and liable for the satisfaction of all taxes and penalties that may arise in connection with Awards (including but not limited to any taxes arising under Code Section 409A), and the Company shall not have any obligation to indemnify or otherwise hold any Participant harmless from any or all of such taxes. The Company shall have no responsibility to take or refrain from taking any actions in order to achieve a certain tax result for a Participant or any other person.

(o) *Effect of Certain Changes in Status:* Notwithstanding the other terms of the Plan or an Award Agreement, the Administrator has sole discretion to determine (taking into account any Code Section 409A considerations), at the time of grant of an Award or at any time thereafter, the effect, if any, on Awards (including but not limited to modifying the vesting, exercisability and/or earning of Awards) granted to a Participant if the Participant's status as an Employee, Director or Independent Contractor changes, including but not limited to a change from full-time to part-time, or vice versa, or if other similar changes in the nature or scope of the Participant's employment or service occur.

(p) *Stockholder Approval:* The Plan is subject to approval by the stockholders of the Company, which approval must occur, if at all, within 12 months of the Effective Date of the Plan. Awards granted prior to such stockholder approval shall be conditioned upon and shall be effective only upon approval of the Plan by such stockholders on or before such date.

(q) *Deferrals:* The Administrator may permit or require a Participant to defer such Participant's receipt of the payment of cash or the delivery of shares of Common Stock that would otherwise be payable with respect to an Award. Any such deferral shall be subject to such terms and conditions as may be established by the Administrator and to any applicable Code Section 409A requirements.

(r) *Fractional Shares:* Except as otherwise provided in an Award Agreement or determined by the Administrator, (i) the total number of shares issuable pursuant to the exercise, vesting or earning of an Award shall be rounded down to the nearest whole share, and (ii) no fractional shares shall be issued. The Administrator may, in its discretion, determine that a fractional share shall be settled in cash.

(s) *Compliance with Recoupment, Ownership and Other Policies or Agreements:* Notwithstanding anything in the Plan to the contrary, the Administrator may, at any time, consistent with, but without limiting, the authority granted in Section 3(b) herein, in its discretion provide that an Award or benefits related to an Award shall be forfeited and/or recouped if the Participant, during employment or service or following termination of employment or service for any reason, engages in certain specified conduct, including but not limited to violation of policies of the Company or an Affiliate, breach of non-solicitation, noncompetition, confidentiality or other restrictive covenants, or other conduct by the Participant that is determined by the Administrator to be detrimental to the business or reputation of the Company or any Affiliate. In addition, without limiting the effect of the foregoing, as a condition to the grant of an Award or receipt or retention of shares of Common Stock, cash or any other benefit under the Plan, the Administrator may, at any time, require that a Participant agree to abide by any equity retention policy, stock ownership guidelines, compensation recovery policy and/or other policies adopted by the Company or an Affiliate, each as in effect from time to time and to the extent applicable to the Participant. Further, each Participant shall be subject to such compensation recovery, recoupment, forfeiture or other similar provisions as may apply under Applicable Law.

21. Compliance with Code Section 409A

Notwithstanding any other provision in the Plan or an Award Agreement to the contrary, if and to the extent that Code Section 409A is deemed to apply to the Plan or any Award, it is the general intention of the Company that the Plan and all such Awards shall, to the extent practicable, comply with, or be exempt from, Code Section 409A, and the Plan and any such Award Agreement shall, to the extent practicable, be construed in accordance therewith. Deferrals of shares or any other benefit issuable pursuant to an Award otherwise exempt from Code Section 409A in a manner that would cause Code Section 409A to apply shall not be permitted unless such deferrals are in compliance with, or exempt from, Code Section 409A. In the event that the Company (or a successor thereto) has any stock which is publicly traded on an established securities market or otherwise, distributions that are subject to Code Section 409A to any Participant who is a "specified employee" (as defined under Code Section 409A) upon a separation from service may only be made following the expiration of the six-month period after the date of separation from service (with such distributions to be made during the seventh month following separation of service), or, if earlier than the end of the six-month period, the date of death of the specified employee, or as otherwise permitted under Code Section 409A. For purposes of Code Section 409A, each installment payment provided under the Plan or an Award Agreement shall be treated as a separate payment. Without in any way limiting the effect of any of the foregoing, (i) in the event that Code Section 409A requires that any special terms, provisions or conditions be included in the Plan or any Award Agreement, then such terms, provisions and conditions shall, to the extent practicable, be deemed to be made a part of the Plan or Award Agreement, as applicable, and (ii) terms used in the Plan or an Award Agreement shall be construed in accordance with Code Section 409A if and to the extent required. Further, in the event that the Plan or any Award shall be deemed not to comply with Code Section 409A, then neither the Company, the Administrator nor its or their designees or agents shall be liable to any Participant or other person for actions, decisions or determinations made in good faith.

[Signature Page To Follow]

IN WITNESS WHEREOF, this Targacept, Inc. 2015 Stock Incentive Plan is, by the authority of the Board of Directors of the Company, executed in behalf of the Company, the [—] day of [—], 2015.

TARGACEPT, INC.

By: _____
Name: Stephen A. Hill
Title: President and Chief Executive Officer

ATTEST:

By: _____
Name: Patrick C. Rock
Title: Senior Vice President, General Counsel and Secretary

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Annex G

TARGACEPT, INC.,

as Issuer,

and

AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC,

Trustee

Indenture

Dated as of [ ], 2015

Providing for the Issuance

Of

Redeemable Convertible Notes due 2018

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INDENTURE, dated as of [ ], 2015, by and among TARGACEPT, INC., a Delaware corporation (hereinafter called the "**Company**"), having its principal office at 100 North Main Street, Suite 1510, Winston-Salem, North Carolina 27101, and AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC, a New York limited liability trust company, as Trustee (hereinafter called the "**Trustee**"), having its Corporate Trust Office at 6201 15th Avenue, Brooklyn, NY 11219.

RECITALS OF THE COMPANY

WHEREAS, the Company, in partial satisfaction of the dividend (the "Dividend") declared by the Company payable to holders of the shares of the Company's common stock, par value $0.0001 per share, as of the Dividend Record Date, shall issue to the Record Holders Redeemable Convertible Notes due 2018 (hereinafter called the "**Securities**") evidencing the Company's indebtedness, which may be convertible, in a minimum amount of $50,000 per conversion (or such Holder's (as defined herein) entire principal amount of Securities held, if less), into shares of Common Stock (as defined herein) or redeemed for cash at any time, and has duly authorized the execution and delivery of this Indenture (as defined herein) to provide for the issuance of the Securities at the time of the execution of this Indenture, to mature at such time and to have such other provisions as shall be fixed as hereinafter provided;

WHEREAS, contemporaneously with the payment of the Dividend, the Company shall fund, in cash, the principal amount of the Securities (the "**Escrow Funds**") into a segregated account to be held by the Escrow Agent (as defined herein);

WHEREAS, following the payment of the Dividend and the funding by the Company of the Escrow Funds, **TALOS MERGER SUB, INC.**, a Delaware corporation and a wholly-owned subsidiary of the Company ("**Merger Sub**") shall be merged (the "**Merger**") with and into **CATALYST BIOSCIENCES, INC.**, a Delaware corporation ("**CBI**"), with CBI surviving the Merger as a wholly-owned subsidiary of the Company, in accordance with that certain Agreement and Plan of Merger, dated as of March 5, 2015 by and among the Company, Merger Sub and CBI;

WHEREAS, this Indenture is subject to the provisions of the Trust Indenture Act (as defined herein), that are required to be part of this Indenture and shall, to the extent applicable, be governed by such provisions; and

WHEREAS, all things necessary to make this Indenture a valid and legally binding agreement of the Company, in accordance with its terms, have been done;

NOW, THEREFORE, THIS INDENTURE WITNESSETH:

For and in consideration of the premises and the receipt of the Securities by the Holders (as defined herein) thereof, it is mutually covenanted and agreed, for the equal and proportionate benefit of all Holders, as follows:

ARTICLE I

DEFINITIONS AND OTHER PROVISIONS OF GENERAL APPLICATION

Section 1.01 Definitions.

For all purposes of this Indenture, except as otherwise expressly provided or unless the context otherwise requires:

(1) the terms defined in this Article One have the meanings assigned to them in this Article One, and include the plural as well as the singular;

(2) all other terms used herein which are defined in the Trust Indenture Act, either directly or by reference therein, have the meanings assigned to them therein;

(3) all accounting terms not otherwise defined herein have the meanings assigned to them in accordance with generally accepted accounting principles in the United States of America; and

(4) the words “herein”, “hereof” and “hereunder” and other words of similar import refer to this Indenture as a whole and not to any particular Article, Section or other subdivision.

“**Act**,” when used with respect to any Holder of a Security, has the meaning specified in Section 1.04.

“**Agent Members**” means members of, or participants in, the Depositary.

“**Affiliate**” of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For the purposes of this definition, “control” when used with respect to any specified Person means the power to direct the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise, and the terms “controlling” and “controlled” have meanings correlative to the foregoing.

“**Authenticating Agent**” means any authenticating agent appointed by the Trustee pursuant to Section 5.11 to act on behalf of the Trustee to authenticate Securities.

“**Bankruptcy Law**” means Title 11 of the U.S. Code or any applicable federal or state bankruptcy, insolvency, reorganization or other similar law or analogous foreign law for the relief of debtors.

“**Beneficial Owner**” means any Person who is considered a beneficial owner of a security in accordance with Rule 13d-3 under the Exchange Act.

“**Board of Directors**” means the board of directors of the Company or any committee thereof duly authorized to act hereunder.

“**Board Resolution**” means a copy of one or more resolutions certified by the Secretary or an Assistant Secretary of the Company to have been duly adopted by the Board of Directors and to be in full force and effect on the date of such certification, and delivered to the Trustee.

“**Business Day**” means each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in The City of New York are authorized or obligated by law, regulation or executive order to close.

“**Capital Stock**” means any and all shares, interests, rights to purchase, warrants, options, participations or other equivalents of or interests in (however designated) stock issued by the Company.

“**Close of Business**” means 5:00 p.m., Eastern Time, on any Business Day.

“**Closing Price**” means, in the case of the Common Stock, the average of the price per share of the final trade of the Common Stock on the applicable Trading Day on the Principal Securities Exchanges, such average to be weighted based on the percentage of trading activity conducted on such Trading Day on each of the Principal Securities Exchanges and, in the case of other securities, the price per unit of the final trade of such security on the applicable Trading Day on the principal national securities exchange on which such security is listed or admitted to trading.

“**Commission**” means the Securities and Exchange Commission.

"**Common Stock**" means the shares of the class designated as common stock of the Company at the date of this Indenture as such stock may be reconstituted from time to time. Subject to the provisions of Section 10.03, shares issuable upon conversion of Securities shall include only shares of Common Stock or shares of any class or classes of common stock resulting from any reclassification or reclassifications thereof; *provided, however*, that if at any time there shall be more than one such resulting class, the shares so issuable on conversion of Securities shall include shares of all such classes, and the shares of each such class then so issuable shall be substantially in the proportion which the total number of shares of such class resulting from all such reclassifications bears to the total number of shares of all such classes resulting from all such reclassifications.

"**Company**" has the meaning specified in the first paragraph of this Indenture.

"**Company Request**" and "**Company Order**" mean, respectively, a written request or order, as the case may be, signed in the name of the Company by any one of its Chairman of the Board of Directors, its Chief Executive Officer, its President, its Chief Financial Officer or a Vice President and by any one of its Secretary or its Controller, and delivered to the Trustee.

"**Conversion Agent**" means the office or agency appointed by the Company where Securities may be presented for conversion. The Conversion Agent appointed by the Company shall initially be the Trustee.

"**Conversion Date**" has the meaning specified in Section 10.01.

"**Conversion Rate**" means a stated price to be computed as the quotient of 1 and $[1.313], subject to adjustment as set forth in Section 10.02.

"**Corporate Trust Office**" means the office of the Trustee at which, at any particular time, its corporate trust business shall be principally administered, which office at the date hereof is located at 6201 15th Avenue, Brooklyn, NY 11219.

"**Corporation**" includes corporations, limited liability companies, associations, companies and business trusts.

"**Current Market Price**" means the average Closing Price for the 10 consecutive Business Days immediately preceding, but not including, the date as of which the Current Market Price is to be determined.

"**CUSIP**" has the meaning specified in Section 3.10.

"**Custodian**" means any custodian, receiver, trustee, assignee, liquidator, sequestrator or other similar official under any Bankruptcy Law.

"**Default**" means any event which is, or after notice or passage of time or both would be, an Event of Default.

"**Definitive Securities**" means any certificated Securities that are not Global Securities.

"**Depositary**" means the Person designated, which shall originally be the Depository Trust Company or any nominee thereof, as depositary of the Global Securities by the Company until a successor Depositary shall have become such pursuant to the applicable provisions of this Indenture, and thereafter "**Depositary**" shall mean the Person who is then depositary for the Global Securities.

"**Distributed Property**" has the meaning specified in Section 10.02.

"**Dividend Record Date**" means [ ].

"**Dollar**" or "**$**" means a dollar or other equivalent unit in such coin or currency of the United States of America as at the time shall be legal tender for the payment of public and private debts.

"**Event of Default**" has the meaning specified in Section 4.01.

"Escrow Agent" means that certain Escrow Agent appointed by the Company pursuant to the Escrow Agreement. The Escrow Agent appointed by the company shall initially be Delaware Trust Company.

"**Escrow Agreement**" means the Escrow Agreement, dated as of the date hereof, between the Company, the Escrow Agent and the Trustee, as such agreement may be amended, supplemented or modified from time to time in accordance with its terms.

"**Escrow Funds**" has the meaning specified in the Recitals.

"**Exchange Act**" means the Securities Exchange Act of 1934, as amended.

"**Expiration Date**" has the meaning specified in Section 10.02.

"**Global Securities**" means the certificated Securities in global form, registered in the name of the Depositary.

"**Holder**" means the Person in whose name a Security is registered in the Security Register.

"**Indenture**" means this instrument as originally executed or as it may from time to time be supplemented or amended by one or more indentures supplemental hereto entered into pursuant to the applicable provisions hereof.

"**Issuance Date**" means [ ], 2015.

"**Lien**" means, with respect to any asset, any mortgage, lien, pledge, charge, security interest or encumbrance of any kind with respect to such asset.

"**Notice of Default**" has the meaning specified in Section 5.01.

"**Officers' Certificate**" means a certificate signed by any of the Company's Chairman of the Board of Directors, its Chief Executive Officer, its President, its Chief Financial Officer or a Vice President and by any one of its Secretary or its Controller, and delivered to the Trustee.

"**Open of Business**" means 9:00 a.m., Eastern Time, on any Business Day. "**Opinion of Counsel**" means a written opinion of counsel, who may be counsel for the Company or who may be an employee of or other counsel for the Company, and who shall be reasonably acceptable to the Trustee.

"**Outstanding**", when used with respect to the Securities, means, as of the date of determination, all Securities, theretofore authenticated and delivered under this Indenture, except:

(i) Securities theretofore cancelled by the Trustee or the Security Registrar or delivered to, or accepted by, the Trustee or the Security Registrar for cancellation;

(ii) Securities which have been paid pursuant to Section 3.06 or in exchange for or in lieu of which other Securities have been authenticated and delivered pursuant to this Indenture;

(iii) Securities converted into shares of Common Stock as contemplated herein; and

(iv) Securities redeemed for cash as contemplated herein;

provided, however, that in determining whether the Holders of the requisite principal amount of the Outstanding Securities have given any request, demand, authorization, direction, notice, consent or waiver hereunder or are present at a meeting of Holders for quorum purposes, and for the purpose of making the calculations required by Section 313 of the Trust Indenture Act, Securities owned by the Company or any other obligor upon the Securities or any Affiliate of the Company or of such other obligor shall be disregarded and deemed not to be Outstanding, except that, in determining whether the Trustee shall be fully protected in making such calculation or in relying upon any such request, demand, authorization, direction, notice, consent or waiver or upon any such determination as to the presence of a quorum, only Securities which a Responsible Officer of the Trustee actually knows to be so owned shall be so disregarded. Securities so owned which have been pledged in good faith may be regarded as Outstanding if the pledgee establishes to the satisfaction of the Trustee the pledgee's right so to act with respect to such Securities and that the pledgee is not the Company or any other obligor upon the Securities or any Affiliate of the Company or of such other obligor.

"**Paying Agent**" means any Person authorized by the Company to pay the principal on the Securities on behalf of the Company. The Paying Agent appointed by the Company shall initially be the Trustee.

"**Person**" means any individual, corporation, partnership, joint venture, association, joint-stock company, limited liability company, trust, unincorporated organization or government or any agency or political subdivision thereof, or any other entity.

"**Place of Payment**" means the place or places where the principal of any Securities are payable or where the Securities are convertible into shares of Common Stock, and the initial Place of Payment shall be the Corporate Trust Office.

"**Principal Securities Exchanges**" means the principal national securities exchange in the United States on which the Common Stock is listed or admitted to trading, it being understood that as of the date hereof the Principal Securities Exchanges are the Nasdaq Global Market and the New York Stock Exchange; *provided*, that in the event the Common Stock is only listed or admitted to trading on one Principal Securities Exchange such exchange shall be the sole Principal Securities Exchange.

"**Property**" has the meaning specified in Section 9.08.

"**Record Date**" means, with respect to any dividend, distribution or other transaction or event in which the holders of Common Stock have the right to receive any cash, securities or other property or in which the Common Stock (or other applicable security) is exchanged for or converted into any combination of cash, securities or other property, the date fixed for determination of shareholders entitled to receive such cash, securities or other property (whether such date is fixed by the Board of Directors or by statute, contract or otherwise).

"**Redemption Agent**" means the office or agency appointed by the Company where Securities may be presented for redemption. The Redemption Agent appointed by the Company shall initially be the Trustee.

"**Redemption Date**" shall mean the fifth Business Days after the receipt of a redemption notice by the Trustee.

"**Reference Property**" has the meaning specified in Section 10.03.

"**Registered Security**" means any Security which is registered in the Security Register.

"**Reorganization Event**" has the meaning specified in Section 10.03.

"**Responsible Officer**" means any officer of the Trustee assigned by the Trustee to administer its corporate trust matters and who shall have direct responsibility for the administration of this Indenture.

"**Securities Custodian**" means the custodian with respect to the Global Securities (as appointed by the Depositary), or any successor Person thereto and shall initially be the Trustee.

"**Security**" or "**Securities**" has the meaning specified in the Recitals and, more particularly, means any Security or Securities authenticated and delivered under this Indenture.

"**Security Register**" has the meaning specified in Section 3.05.

"**Security Registrar**" has the meaning specified in Section 3.05.

"**Significant Subsidiary**" means (1) CBI or (2) any Subsidiary that would be a "significant subsidiary" as defined in Rule 1-02 of Regulation S-X, promulgated pursuant to the Securities Act of 1933, as amended, as such regulation is in effect on the date hereof.

"**Spin-Off**" has the meaning specified in Section 10.02.

"**Stated Maturity Date**" means [ ], 2018 [30 months from the date of issuance], which is the date that all principal on all Outstanding Securities is due and payable.

"**Subsidiary**" means any Person a majority of the outstanding voting stock of which is owned, directly or indirectly, by the Company or by one or more other Subsidiaries of the Company. For the purposes of this definition, "voting stock" means stock having voting power for the election of directors, whether at all times or only so long as no senior class of stock has such voting power by reason of any contingency.

"**Trading Day**" means any Business Day on which the Common Stock is traded, or able to be traded, on any of the Principal Securities Exchanges on which the Common Stock is listed or admitted to trading.

"**Trust Indenture Act**" means the Trust Indenture Act of 1939, as amended, as in force at the date as of which this Indenture was executed, except as provided in Section 8.05.

"**Trustee**" means the Person named as the "Trustee" in the first paragraph of this Indenture until a successor Trustee shall have become such pursuant to the applicable provisions of this Indenture, and thereafter "**Trustee**" shall mean or include each Person who is then a Trustee hereunder.

"**United States**" means the United States of America (including the states and the District of Columbia), its territories, its possessions and other areas subject to its jurisdiction.

Section 1.02 Compliance Certificates and Opinions.

(1) Upon any application or request by the Company to the Trustee to take any action under any provision of this Indenture, the Company shall furnish to the Trustee an Officers' Certificate stating that all conditions precedent, if any, provided for in this Indenture relating to the proposed action have been complied with, except that in the case of any such application or request as to which the furnishing of such documents is specifically required by any provision of this Indenture relating to such particular application or request, no additional certificate or opinion need be furnished.

Every certificate with respect to compliance with a condition or covenant provided for in this Indenture (other than pursuant to Section 9.04) shall include:

(a) a statement that each individual signing such certificate has read such condition or covenant and the definitions herein relating thereto;

(b) a brief statement as to the nature and scope of the examination or investigation upon which the statements contained in such certificate are based;

(c) a statement that he or she has made such examination or investigation as is necessary to enable such individual to express an informed opinion as to whether or not such condition or covenant has been complied with; and

(d) a statement as to whether, in the opinion of each such individual, such condition or covenant has been complied with.

(2) In the absence of bad faith or willful misconduct on its part, the Trustee may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon certificates furnished to the Trustee and conforming to the requirements of this Indenture. However, in the case of any such certificates which by any provision hereof are specifically required to be furnished to the Trustee, the Trustee shall examine the certificates to determine whether or not they conform on their face to the requirements of this Indenture, but need not confirm or investigate the accuracy of mathematical calculations or other facts stated therein.

Section 1.03 Form of Documents Delivered to Trustee.

In any case where several matters are required to be certified by any specified Person, it is not necessary that all such matters be certified by only one such Person, or that they be so certified or covered by only one document.

Any certificate of an officer of the Company may be based, insofar as it relates to legal matters, upon an Opinion of Counsel, or a certificate or representations by counsel, unless such officer knows, or in the exercise of reasonable care should know, that the opinion, certificate or representations with respect to the matters upon which his certificate or opinion is based are erroneous. Any such Opinion of Counsel or certificate or representations may be based, insofar as it relates to factual matters, upon a certificate or opinion of, or representations by, an officer or officers of the Company stating that the information as to such factual matters is in the possession of the Company, unless such counsel knows, or in the exercise of reasonable care should know, that the certificate or opinion or representations as to such matters are erroneous.

Where any Person is required to make, give or execute two or more applications, requests, consents, certificates, statements, opinions or other instruments under this Indenture, they may, but need not, be consolidated and form one instrument.

Section 1.04 Acts of Holders.

(a) Any request, demand, authorization, direction, notice, consent, waiver or other action provided by this Indenture to be given or taken by Holders may be embodied in and evidenced by one or more instruments of substantially similar tenor signed by such Holders in person or by agents duly appointed in writing. Except as herein otherwise expressly provided, such action shall become effective when such instrument or instruments or record or both are delivered to the Trustee and, where it is hereby expressly required, to the Company. Such instrument or instruments and any such record (and the action embodied therein and evidenced thereby) are herein sometimes referred to as the "**Act**" of the Holders signing such instrument or instruments or so voting at any such meeting. Proof of execution of any such instrument or of a writing appointing any such agent, or of the holding by any Person of a Security, shall be sufficient for any purpose of this Indenture and conclusive in favor of the Trustee and the Company and any agent of the Trustee or the Company, if made in the manner provided in this Section 1.04.

(b) The fact and date of the execution by any Person of any such instrument or writing may be proved by the affidavit of a witness of such execution or by a certificate of a notary public or other officer authorized by law to take acknowledgments of deeds, certifying that the individual signing such instrument or writing acknowledged to him or her the execution thereof. Where such execution is by a signer acting in a capacity other than his individual capacity, such certificate or affidavit shall also constitute sufficient proof of his authority. The

fact and date of the execution of any such instrument or writing, or the authority of the Person executing the same, may also be proved in any other manner that the Trustee deems reasonably sufficient.

(c) The ownership of Securities shall be proved by the Security Register.

(d) If the Company shall solicit from the Holders of Securities any request, demand, authorization, direction, notice, consent, waiver or other Act, the Company may, at its option, in or pursuant to a Board Resolution, fix in advance a record date for the determination of Holders entitled to give such request, demand, authorization, direction, notice, consent, waiver or other Act, but the Company shall have no obligation to do so. Notwithstanding Section 316(c) of the Trust Indenture Act, such record date shall be the record date specified in or pursuant to such Board Resolution, which shall be a date not earlier than the date 30 days prior to the first solicitation of Holders generally in connection therewith and not later than the date such solicitation is completed. If such a record date is fixed, such request, demand, authorization, direction, notice, consent, waiver or other Act may be given before or after such record date, but only the Holders of record at the close of business on such record date shall be deemed to be Holders for the purposes of determining whether Holders of the requisite proportion of Outstanding Securities have authorized or agreed or consented to such request, demand, authorization, direction, notice, consent, waiver or other Act, and for that purpose the Outstanding Securities shall be computed as of such record date; *provided* that no such authorization, agreement or consent by the Holders on such record date shall be deemed effective unless it shall become effective pursuant to the provisions of this Indenture not later than six months after the record date.

(e) Any request, demand, authorization, direction, notice, consent, waiver or other Act of the Holder of any Security shall bind every future Holder of the same Security and the Holder of every Security issued upon the registration of transfer thereof or in exchange therefor or in lieu thereof in respect of anything done, omitted or suffered to be done by the Trustee, any Security Registrar, any Escrow Agent, any Authenticating Agent or the Company in reliance thereon, whether or not notation of such action is made upon such Security.

Section 1.05 Notices, Etc., to Trustee and the Company.

Any request, demand, authorization, direction, notice, consent, waiver or Act of Holders or other document provided or permitted by this Indenture shall be in writing and shall be deemed to have been duly given (a) on the date of delivery, if delivered personally or by facsimile, upon confirmation of receipt, (b) on the first Business Day following the date of dispatch if delivered by a recognized next-day courier services or (c) on the third Business Day following the date of mailing if delivered by registered or certified mail, return receipt requested, postage prepaid, to the parties to this Agreement at the following address or to such other address either party to this Agreement shall specify by notice to the other party:

(1) if to the Trustee, addressed to it at American Stock Transfer & Trust Company, LLC, Administrative Support, 6201 15th Avenue, Brooklyn, NY 11219, Attn: Corporate Trust Department, facsimile at (718) 331-1852, or at any other address previously furnished in writing to the Holders and the Company in accordance with this Section 1.05; or

(2) if to the Company, addressed to it at Targacept, Inc., 100 North Main Street, Suite 1510, Winston-Salem, NC 27101 Attn: Dr. Stephen A. Hill, facsimile at (336) 480-2103, or at any other address previously furnished in writing to the Trustee and the Holders by the Company in accordance with this Section 1.05.

Section 1.06 Notice to Holders; Waiver.

Where this Indenture provides for notice of any event to Holders of Registered Securities by the Company or the Trustee, such notice shall be sufficiently given (unless otherwise herein expressly provided) if in writing and mailed, first-class postage prepaid, to each such Holder affected by such event, at his, her or its address as it appears in the Security Register, not later than the latest date, and not earlier than the earliest date, prescribed for

the giving of such notice. In any case where notice to Holders of Registered Securities is given by mail, neither the failure to mail such notice, nor any defect in any notice so mailed, to any particular Holder shall affect the sufficiency of such notice with respect to other Holders of Registered Securities given as provided herein. Any notice mailed to a Holder in the manner herein prescribed shall be conclusively deemed to have been received by such Holder, whether or not such Holder actually receives such notice.

If by reason of the suspension of or irregularities in regular mail service or by reason of any other cause it shall be impracticable to give such notice by mail, then such notification to Holders of Registered Securities as shall be made with the approval of the Trustee shall constitute a sufficient notification to such Holders for every purpose hereunder.

Any request, demand, authorization, direction, notice, consent or waiver required or permitted under this Indenture shall be in the English language.

Notwithstanding any other provision of this Indenture or any Security, whenever notice is required to be given to a holder of a Global Security, such notice shall be sufficiently given if given to the Depositary for such Global Security (or its designee), pursuant to customary procedures of such Depositary.

Where this Indenture provides for notice in any manner, such notice may be waived in writing by the Person entitled to receive such notice, either before or after the event, and such waiver shall be the equivalent of such notice. Waivers of notice by Holders shall be filed with the Trustee, but such filing shall not be a condition precedent to the validity of any action taken in reliance upon such waiver.

Section 1.07 Effect of Headings and Table of Contents.

The Article and Section headings herein and the Table of Contents are for convenience only and shall not affect the construction hereof.

Section 1.08 Successors and Assigns.

All covenants and agreements in this Indenture by the Company shall bind its successors and assigns, whether so expressed or not.

Section 1.09 Separability Clause.

In case any provision in this Indenture or in any Security shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

Section 1.10 Benefits of Indenture.

Nothing in this Indenture or in the Securities, express or implied, shall give to any Person, other than the parties hereto, any Security Registrar, any Paying Agent, any Authenticating Agent, any Conversion Agent, any Redemption Agent and their successors hereunder and the Holders any benefit or any legal or equitable right, remedy or claim under this Indenture.

Section 1.11 No Security Interests Created

Except as provided in the Escrow Agreement, nothing in this Indenture or the Securities, expressed or implied, shall be construed to create a security interest under the Uniform Commercial Code or similar legislation, as now or hereafter enacted and in effect, in any jurisdiction.

Section 1.12 Governing Law.

This Indenture and the Securities shall be governed by and construed in accordance with the law of the State of New York. This Indenture is subject to the provisions of the Trust Indenture Act that are required to be part of this Indenture and shall, to the extent applicable, be governed by such provisions.

Section 1.13 Legal Holidays.

In any case where the Stated Maturity Date or any Conversion Date shall not be a Business Day, then, payment of principal, or the provision of any shares of Common Stock need not be made on such date, but may be made on the next succeeding Business Day with the same force and effect as if made on the Stated Maturity Date or such Conversion Date.

Section 1.14 Submission to Jurisdiction.

The Company hereby irrevocably submits to the non-exclusive jurisdiction of any New York state or federal court sitting in The City of New York in any action or proceeding arising out of or relating to the Indenture and the Securities, and the Company hereby irrevocably agrees that all claims in respect of such action or proceeding may be heard and determined in such New York state or federal court. The Company hereby irrevocably waives, to the fullest extent it may effectively do so, the defense of an inconvenient forum to the maintenance of such action or proceeding. Any action or proceeding brought by or on behalf of any Holder arising out of or relating to the Indenture and the Securities shall be brought exclusively in New York state or federal court sitting in The City of New York.

Section 1.15 Conflict with Trust Indenture Act.

If any provision hereof limits, qualifies or conflicts with any provision of the Trust Indenture Act or another provision which is required or deemed to be included in this Indenture by any of the provisions of the Trust Indenture Act, the provision or requirement of the Trust Indenture Act shall control. If any provision of this Indenture modifies or excludes any provision of the Trust Indenture Act that may be so modified or excluded, the latter provision shall be deemed to apply to this Indenture as so modified or to be excluded, as the case may be.

Section 1.16 Counterparts.

This Indenture may be executed in any number of counterparts, each of which shall be an original, but such counterparts shall together constitute but one and the same instrument.

ARTICLE II

SECURITIES FORMS

Section 2.01 Form and Dating.

The Securities shall be issued initially as one or more Global Securities and/or Definitive Securities in the form set forth on Exhibit A and Exhibit B, respectively, both of which are part of this Indenture and incorporated by reference herein. The Securities may have notations, legends or endorsements required by law, stock exchange rule or usage; *provided* that any such notation, legend or endorsement required by usage is in a form acceptable to the Company. The Company shall provide any such notations, legends or endorsements to the Trustee in writing. Each Security shall be dated the date of its authentication.

Section 2.02 Form of Trustee's Certificate of Authentication.

Subject to Section 5.11, the Trustee's certificate of authentication shall be in substantially the following form:

This is one of the Securities referred to in the within-mentioned Indenture.

AMERICAN STOCK TRANSFER &
TRUST COMPANY, LLC, Trustee

By: _____
Authorized Officer

Section 2.03 Global Security in General.

Each Global Security shall represent such number of the Outstanding Securities as shall be specified therein and each shall provide that it shall represent the aggregate amount of Outstanding Securities from time to time endorsed thereon and that the aggregate amount of Outstanding Securities represented thereby may from time to time be reduced or increased, as appropriate, to reflect any exchanges, surrenders, conversions, transfers or cancellations.

Any adjustment of the aggregate principal amount of a Global Security to reflect the amount of any increase or decrease in the amount of Outstanding Securities represented thereby shall be made by the Trustee and shall be made on the records of the Trustee and the Depositary.

Section 2.04 Legends.

The Company shall execute and the Trustee shall, in accordance with this Section 2.04, authenticate and deliver initially one or more Global Securities that (a) shall be registered in the name of the Depositary, (b) shall be delivered by the Trustee to the Depositary or pursuant to the Depositary's instructions and (c) shall bear legends substantially to the following effect:

"UNLESS THIS CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY, A NEW YORK CORPORATION, TO TARGACEPT, INC. (THE "COMPANY") OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY CERTIFICATE ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY (AND ANY PAYMENT HEREON IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN. TRANSFERS OF THIS GLOBAL SECURITY SHALL BE LIMITED TO TRANSFERS TO NOMINEES OF THE DEPOSITORY TRUST COMPANY OR TO A SUCCESSOR THEREOF OR SUCH SUCCESSOR'S NOMINEE AND TRANSFERS OF PORTIONS OF THIS GLOBAL SECURITY SHALL BE LIMITED TO TRANSFERS MADE IN ACCORDANCE WITH THE RESTRICTIONS SET FORTH IN THE INDENTURE REFERRED TO ON THE REVERSE HEREOF."

Section 2.05 Definitive Securities.

Securities not issued as interests in the Global Securities will be issued in certificated definitive form substantially in the form of Exhibit B attached hereto.

ARTICLE III

THE SECURITIES

Section 3.01 Title; Amount and General Information.

(1) The Securities shall be known and designated as the "Redeemable Convertible Notes";

(2) The aggregate principal amount of Securities which may be authenticated and delivered under this Indenture is limited to $37 million (except for Securities authenticated and delivered upon registration of transfer of, or in exchange for, or in lieu of, other Securities pursuant to Sections 3.04, 3.05, 3.06, 8.06, and except for any Securities which, pursuant to Section 3.03, are deemed never to have been authenticated and delivered hereunder);

(3) The principal of any Outstanding Securities shall be due on the Stated Maturity Date;

(4) The Securities shall not bear interest;

(5) All principal of Securities shall be payable, all shares of Common Stock provided upon conversion, all Definitive Securities may be surrendered for registration of transfer, exchange or conversion, as applicable, and all notices or demands to or upon the Company in respect of the Securities and this Indenture may be served at the Corporate Trust Office in the City of New York or any other Place of Payment designated by the Company after the provision of notice of such designation by the Company to the Trustee and the Holders; and

(6) The Trustee shall be the initial Paying Agent, Security Registrar, Conversion Agent, Redemption Agent and Securities Custodian.

Section 3.02 Denominations.

The Securities initially shall be issuable in denominations of $1.00 and any multiple thereof.

Section 3.03 Execution, Authentication, Delivery and Dating.

The Securities shall be executed on behalf of the Company by any one of its Chairman of the Board of Directors, its Chief Executive Officer, its President, its Chief Financial Officer or a Vice President and by one of its Secretary or its Controller, under its corporate seal reproduced thereon, and attested by its Secretary. The signature of such officers on the Securities may be manual or facsimile signatures of the present or any future such authorized officer and may be imprinted or otherwise reproduced on the Securities.

Securities bearing the manual or facsimile signatures of individuals who were at any time the proper officers of the Company shall bind the Company, notwithstanding that such individuals or any of them have ceased to hold such offices prior to the authentication and delivery of such Securities or did not hold such offices at the date of such Securities.

The Trustee shall authenticate and deliver Securities for original issue in an aggregate principal amount of up to $37 million upon a Company Order without any further action by the Company. The aggregate principal amount of Securities outstanding at any time may not exceed the amount set forth in the foregoing sentence.

Each Registered Security shall be dated the date of its authentication as contemplated by Section 3.01.

No Security shall be entitled to any benefit under this Indenture or be valid or obligatory for any purpose unless there appears on such Security a certificate of authentication substantially in the form provided for herein duly executed by the Trustee or an Authenticating Agent by signature of an authorized signatory, and such

certificate upon any Security shall be conclusive evidence, and the only evidence, that such Security has been duly authenticated and delivered hereunder and is entitled to the benefits of this Indenture. Notwithstanding the foregoing, if any Security shall have been authenticated and delivered hereunder but never issued and sold by the Company, and the Company shall deliver such Security to the Trustee for cancellation as provided in Section 3.09 together with a written statement (which need not comply with Section 1.02 and need not be accompanied by an Opinion of Counsel) stating that such Security has never been issued and sold by the Company, for all purposes of this Indenture such Security shall be deemed never to have been authenticated and delivered hereunder and shall never be entitled to the benefits of this Indenture.

Section 3.04 Temporary Securities.

Pending the preparation of any Global or Definitive Securities, the Company may execute, and upon Company Order the Trustee shall authenticate and deliver, temporary Securities which are printed, lithographed, typewritten, mimeographed or otherwise produced, in any authorized denomination, substantially of the tenor of the Global or Definitive Securities in lieu of which they are issued, in registered form and with such appropriate insertions, omissions, substitutions and other variations as the officers executing such Securities may determine, as conclusively evidenced by their execution of such Securities. Such temporary Securities may be in global form.

If temporary Securities are issued, the Company will cause Definitive Securities to be prepared without unreasonable delay. After the preparation of Definitive Securities, the temporary Securities shall be exchangeable for Definitive Securities upon surrender of the temporary Securities at the Corporate Trust Office, without charge to the Holder. Upon surrender for cancellation of any one or more temporary Securities, the Company shall execute and the Trustee shall authenticate and deliver in exchange therefor a like principal amount and like tenor of Definitive Securities of authorized denominations. Until so exchanged, the temporary Securities shall in all respects be entitled to the same benefits under this Indenture as Definitive Securities.

Section 3.05 Registration, Transfer and Exchange.

The Company shall cause to be kept at the Corporate Trust Office of the Trustee or in any office or agency of the Company in a Place of Payment a register for the Securities (the registers maintained in such office or in any such office or agency of the Company in a Place of Payment being herein sometimes referred to collectively as the "**Security Register**") in which, subject to such reasonable instructions as it may prescribe, the Company shall provide for the registration of Registered Securities and of transfers of Registered Securities. The Security Register shall be in written form or any other form capable of being converted into written form within a reasonable time. The Trustee, at its Corporate Trust Office, is hereby initially appointed "**Security Registrar**" for the purpose of registering Registered Securities and transfers of Registered Securities on such Security Register as herein provided and for facilitating exchanges of temporary Global Securities for permanent Global Securities or Definitive Securities, or both, or of permanent Global Securities for Definitive Securities, or both, as herein provided. In the event that the Trustee shall cease to be Security Registrar, it shall have the right to examine the Security Register at all reasonable times.

Upon surrender for registration of transfer of any Registered Security at any office or agency of the Company in a Place of Payment, the Company shall execute, and the Trustee shall authenticate and deliver, in the name of the designated transferee or transferees, one or more new Registered Securities, of any authorized denominations and of a like aggregate principal amount, bearing a number not contemporaneously outstanding and containing identical terms and provisions.

At the option of the Holder, Registered Securities may be exchanged for other Registered Securities, of any authorized denomination or denominations and of a like aggregate principal amount, containing identical terms and provisions, upon surrender of the Registered Securities to be exchanged at any such office or agency. Whenever any Registered Securities are so surrendered for exchange, the Company shall execute, and the Trustee shall authenticate and deliver, the Registered Securities which the Holder making the exchange is entitled to receive.

Whenever any Securities are so surrendered for exchange, the Company shall execute, and the Trustee shall authenticate and deliver, the Securities which the Holder making the exchange is entitled to receive.

Notwithstanding the foregoing, any permanent Global Security shall be exchangeable only as provided in this paragraph. If any beneficial owner of an interest in a permanent Global Security is entitled to exchange such interest for Securities of like tenor and principal amount of another authorized form and denomination, *provided* that any applicable notice provided in the permanent Global Security shall have been given, then without unnecessary delay but in any event not later than the earliest date on which such interest may be so exchanged, the Company shall deliver to the Trustee Definitive Securities in aggregate principal amount equal to the principal amount of such beneficial owner's interest in such permanent Global Security, executed by the Company. On or after the earliest date on which such interests may be so exchanged, such permanent Global Security shall be surrendered by the Depositary or such other depositary as shall be specified in the Company Order with respect thereto to the Trustee, as the Company's agent for such purpose, or to the Security Registrar, to be exchanged, in whole or from time to time in part, for Definitive Securities without charge and the Trustee shall authenticate and deliver, in exchange for each portion of such permanent Global Security, an equal aggregate principal amount of Definitive Securities of authorized denominations and of like tenor as the portion of such permanent Global Security to be exchanged which shall be in the form of Registered Securities as shall be specified by the beneficial owner thereof.

All Securities issued upon any registration of transfer or exchange of Securities shall be valid obligations of the Company, evidencing the same debt and entitled to the same benefits under this Indenture, as the Securities surrendered upon such registration of transfer or exchange.

Every Registered Security presented or surrendered for registration of transfer or for exchange shall (if so required by the Company or the Security Registrar or any transfer agent) be duly endorsed, or be accompanied by a written instrument of transfer in form satisfactory to the Company and the Security Registrar, duly executed by the Holder thereof or his attorney or any transfer agent duly authorized in writing.

No service charge shall be made for any registration of transfer or exchange of Securities, but the Company or the Trustee may require payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in connection with any registration of transfer or exchange of Securities, other than exchanges pursuant to Section 3.04 or 8.06 not involving any transfer.

Section 3.06 Mutilated, Destroyed, Lost and Stolen Securities.

If any mutilated Security is surrendered to the Trustee or the Company, together with, in proper cases, such security or indemnity as may be required by the Company or the Trustee to save each of them or any agent of either of them harmless, the Company shall execute and the Trustee shall authenticate and deliver in exchange therefor a new Security of the same principal amount, containing identical terms and provisions and bearing a number not contemporaneously outstanding.

If there shall be delivered to the Company and to the Trustee (i) evidence to their satisfaction of the destruction, loss or theft of any Security, and (ii) such security or indemnity as may be required by them to save each of them and any agent of either of them harmless, then the Company shall, subject to the following paragraph, execute and upon its request the Trustee shall authenticate and deliver, in lieu of any such destroyed, lost or stolen Security, a new Security of the same principal amount, containing identical terms and provisions and bearing a number not contemporaneously outstanding.

Upon the issuance of any new Security under this Section 3.06, the Company may require the payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in relation thereto and any other expenses (including the fees and expenses of the Trustee) connected therewith.

Every new Security issued pursuant to this Section 3.06 in lieu of any destroyed, lost or stolen Security shall constitute an original additional contractual obligation of the Company, whether or not the destroyed, lost or stolen Security shall be at any time enforceable by anyone, and shall be entitled to all the benefits of this Indenture equally and proportionately with any and all other Securities duly issued hereunder.

The provisions of this Section 3.06 are exclusive and shall preclude (to the extent lawful) all other rights and remedies with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities.

Section 3.07 Persons Deemed Owners.

Prior to due presentment of a Registered Security for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name such Registered Security is registered as the owner of such Registered Security for the purpose of receiving payment of principal of such Registered Security and for all other purposes whatsoever, and neither the Company, the Trustee nor any agent of the Company or the Trustee shall be affected by notice to the contrary.

None of the Company, the Trustee, any Paying Agent or the Security Registrar will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests of a Security in global form or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

Notwithstanding the foregoing, with respect to any Global Security, whether permanent or temporary, nothing herein shall prevent the Company, the Trustee, or any agent of the Company or the Trustee, from giving effect to any written certification, proxy or other authorization furnished by any Depositary, as a Holder, with respect to such Global Security or impair, as between such Depositary and owners of beneficial interests in such Global Security, the operation of customary practices governing the exercise of the rights of such Depositary (or its nominee) as Holder of such Global Security.

Section 3.08 Book-Entry Provisions for the Global Securities.

(1) Any Global Securities shall initially:

(a) be registered in the name of the Depositary;

(b) be delivered to the Trustee as the Securities Custodian for the Depositary; and

(c) bear the legend set forth in Section 2.04.

(2) Agent Members shall have no rights under this Indenture with respect to any Global Security held on their behalf by the Depositary, or the Trustee as its custodian, or under such Global Security, and the Depositary may be treated by the Company, the Trustee and any agent of the Company or the Trustee as the absolute owner of such Global Security for all purposes whatsoever. Notwithstanding the foregoing, nothing contained herein shall prevent the Company, the Trustee or any agent of the Company or Trustee from giving effect to any written certification, proxy or other authorization furnished by the Depositary or impair, as between the Depositary and the Agent Members, the operation of customary practices governing the exercise of the rights of a Holder of any Security.

(3) The Holder of a Global Security may grant proxies and otherwise authorize any Person, including Agent Members and Persons that may hold interests through Agent Members, to take any action which a Holder is entitled to take under this Indenture or the Securities.

(4) A Global Security may not be transferred, in whole or in part, to any Person other than the Depositary (or a nominee thereof), and no such transfer to any such other Person may be registered. Beneficial interests in a Global Security may be transferred in accordance with the rules and procedures of the Depositary.

(5) If at any time:

(a) the Depositary notifies the Company in writing that it is unwilling or unable to continue to act as Depositary for the Global Securities and a successor Depositary for the Global Securities is not appointed by the Company within 90 days of such notice;

(b) the Depositary ceases to be registered as a "clearing agency" under the Exchange Act and a successor depositary for the Global Securities is not appointed by the Company within 90 days of such cessation;

(c) the Company, at its option, notifies the Trustee in writing that it elects to cause the issuance of the Definitive Securities under this Indenture in exchange for all or any part of the Securities represented by a Global Security or Global Securities, subject to the procedures of the Depositary; or

(d) an Event of Default has occurred and is continuing and the Registrar has received a request from the Depositary for the issuance of Definitive Securities in exchange for such Global Security or Global Securities;

the Depositary shall surrender such Global Security or Global Securities to the Trustee for cancellation and the Company shall execute, and the Trustee, upon receipt of an Officers' Certificate and Company Order for the authentication and delivery of Securities, shall authenticate and deliver in exchange for such Global Security or Global Securities, Definitive Securities in an aggregate principal amount equal to the aggregate principal amount of such Global Security or Global Securities. Such certificated Securities shall be registered in such names as the Depositary shall identify in writing as the beneficial owners of the Securities represented by such Global Security or Global Securities (or any nominee thereof).

(6) Notwithstanding the foregoing, in connection with any transfer of beneficial interests in a Global Security to the beneficial owners thereof pursuant to subsection (5) of this Section 3.08, the Registrar shall reflect on its books and records the date and a decrease in the principal amount of such Global Security in an amount equal to the principal amount of the beneficial interests in such Global Security to be transferred.

Section 3.09 Cancellation.

(1) All Securities surrendered for payment, registration of transfer or exchange or conversion, if surrendered to any Person other than the Trustee, shall be delivered to the Trustee, and any such Securities surrendered directly to the Trustee for any such purpose shall be promptly cancelled by the Trustee. The Company may at any time deliver to the Trustee for cancellation any Securities previously authenticated and delivered hereunder which the Company may have acquired in any manner whatsoever, and may deliver to the Trustee (or to any other Person for delivery to the Trustee) for cancellation any Securities previously authenticated hereunder which the Company has not issued and sold, and all Securities so delivered shall be promptly cancelled by the Trustee. No Securities shall be authenticated in lieu of or in exchange for any Securities cancelled as provided in this Section 3.09, except as expressly permitted by this Indenture. Cancelled Securities held by the Trustee shall be destroyed by the Trustee in accordance with its customary procedures, unless by a Company Order the Company directs the Trustee to deliver a certificate of such destruction to the Company or to return them to the Company.

(2) At such time as all beneficial interests in a Global Security have either been exchanged for other Securities, surrendered for payment, converted, transferred or canceled, such Global Security shall be returned by the Depositary to the Trustee for cancellation or retained and canceled by the Trustee. At any time prior to such cancellation, if any beneficial interest in a Global Security is exchanged for other Securities, surrendered for

payment, converted, transferred or canceled, the principal amount of Securities represented by such Global Security shall be reduced and an adjustment shall be made on the books and records of the Trustee (if it is then the Securities Custodian for such Global Security) or other Securities Custodian with respect to such Global Security, by the Trustee or the Securities Custodian, to reflect such reduction.

Section 3.10 CUSIP Numbers.

The Committee on Uniform Securities Identification Procedures ("**CUSIP**") number for the Securities is [ ]. No notice or exchange shall be affected by any defect in or omission of such CUSIP number, and the Company shall notify the Trustee in writing as promptly as practicable of any change in the CUSIP number.

Section 3.11 Withholding.

(1) The Company (through the Paying Agent or otherwise) shall be entitled to reduce or otherwise set-off against any payments made or deemed made by the Company to Holders in respect of the provision of shares of Common Stock for any amounts the Company believes it is required to withhold by law. For the avoidance of doubt, if the Company pays any withholding taxes on behalf of Holders as a result of an adjustment to the Conversion Rate of the Securities, the Company may, at its option, set-off such payments against payments of cash and Common Stock in respect of the Securities. Any amounts withheld pursuant to this Section 3.11 shall be paid over by the Company (through the Paying Agent or otherwise) to the appropriate taxing authority.

(2) Prior to or upon the occurrence of any event that results in an actual or deemed payment by the Company to Holders in respect of the Securities, the Company (through the Trustee, Paying Agent, Withholding Agent, or otherwise) may request a Holder to furnish any appropriate documentation that may be required in order to determine the Company's withholding obligations under applicable law (including a United States Internal Revenue Service Form W-9, Form W-8BEN, Form W-8ECI, or any certifications prepared by the Company or on its behalf in order to enable the Company to attempt to comply with its potential withholding obligations under any tax laws). Upon the receipt of any such documentation, or in the event no such documentation is provided, the Company (through the Trustee, Paying Agent or otherwise) will withhold pursuant to this Section 3.11 to the extent required by applicable law.

ARTICLE IV

REMEDIES

Section 4.01 Events of Default.

"**Event of Default**" means any one of the following events (whatever the reason for such Event of Default and whether or not it shall be voluntary or involuntary or be effected by operation of law or pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body):

(1) default in the payment of the principal of any Security when due and payable at the Stated Maturity Date;

(2) failure by the Company to deliver shares of Common Stock required to be delivered upon conversion of a Security in accordance with Article Ten within 5 Business Days after the applicable Conversion Date;

(3) failure by the Company to deliver cash payment required to be delivered upon redemption of a Security in accordance with Article Eleven within 5 Business Days after the applicable Redemption Date;

(4) the Escrow Agreement ceases to be in full force and effect or enforceable prior to its expiration in accordance with its terms;

(5) the Company or any Significant Subsidiary:

(a) commences a voluntary case or proceeding under any Bankruptcy Law;

(b) consents to the commencement of any bankruptcy or insolvency case or proceeding against it, or files a petition or answer or consent seeking reorganization or relief against it;

(c) consents to the entry of a decree or order for relief against it in an involuntary case or proceeding;

(d) consents to the filing of such petition or to the appointment of or taking possession by a Custodian of the Company or for all or substantially all of its property; or

(e) makes an assignment for the benefit of creditors, or admits in writing of its inability to pay its debts generally as they become due or takes any corporate action in furtherance of any such action; or

(6) a court of competent jurisdiction enters an order or decree under any Bankruptcy Law that:

(a) is for relief against the Company or any Significant Subsidiary in an involuntary case or proceeding;

(b) adjudges the Company or any Significant Subsidiary bankrupt or insolvent, or approves as properly filed a petition seeking reorganization, arrangement, adjustment or composition of or in respect of the Company;

(c) appoints a Custodian of the Company or any Subsidiary or for all or substantially all of the Company's or any Significant Subsidiary's property; or

(d) orders the winding up or liquidation of the Company or any Significant Subsidiary;

and the continuance of any such decree or order for relief or any such other decree or order unstayed and in effect for a period of 90 consecutive days.

Section 4.02 Acceleration of Maturity.

If an Event of Default (other than an Event of Default specified in Section 4.01(5) or Section 4.01(6) with respect to the Company) occurs and is continuing, then and in every such case the Trustee or the Holders of not less than 51% in principal amount of the Outstanding Securities may declare the principal of all the Securities to be due and payable immediately, by a notice in writing to the Company (and to the Trustee if given by the Holders), and upon any such declaration such principal or specified portion thereof shall become immediately due and payable. If an Event of Default specified in Section 4.01(5) or Section 4.01(6) with respect to the Company occurs, the principal of all of the Securities shall become immediately due and payable without any declaration or other Act of the Holders or any act on the part of the Trustee.

This Section 4.02, however, is subject to the conditions that if, at any time after the principal of the Securities shall have been so declared due and payable, and before any judgment or decree for the payment of the monies due shall have been obtained or entered as hereinafter provided, the Company shall pay or shall deposit with the Trustee (from the Escrow Account or otherwise) a sum sufficient to pay, the principal of any and all Securities that shall have become due and the amounts due to the Trustee pursuant to Section 5.05, and if (1) rescission would not conflict with any judgment or decree of a court of competent jurisdiction and (2) any and all Events of Defaults under this Indenture with respect to such Securities, other than the nonpayment of principal of such Securities that shall have become due solely by such acceleration or failure to deliver amounts due upon conversion, shall have been cured or waived pursuant to Section 4.13, then and in every such case the Holders of a majority in aggregate principal amount of the Outstanding Securities, by written notice to the Company and to the Trustee, may waive all Defaults or Events of Default with respect to the Securities and rescind and annul such declaration and its consequences and such Default shall cease to exist, and any Event of

Default arising therefrom shall be deemed to have been cured for every purpose of this Indenture; but no such waiver or rescission and annulment shall extend to or shall affect any subsequent Default or Event of Default, or shall impair any right consequent thereon. The Company shall notify the Trustee in writing, promptly upon becoming aware thereof, of any Event of Default by delivering to the Trustee a statement specifying such Event of Default and any action the Company has taken, is taking or proposes to take with respect thereto. No rescission or annulment referred to above shall affect any subsequent Default or impair any right consequent thereon.

Section 4.03 Collection of Indebtedness and Suits for Enforcement by Trustee.

The Company covenants that if default is made in the payment of the principal of any Security after the Stated Maturity Date, then the Company will, upon demand of the Trustee, pay to the Trustee, for the benefit of the Holders, the whole amount then due and payable on such Securities for principal, and, in addition thereto, such further amount as shall be sufficient to cover the costs and expenses of collection, including the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel.

If the Company fails to pay such amounts forthwith upon such demand, the Trustee, in its own name and as trustee of an express trust, may institute a judicial proceeding for the collection of the sums so due and unpaid, and may prosecute such proceeding to judgment or final decree, and may enforce the same against the Company or any other obligor upon the Securities and collect the moneys adjudged or decreed to be payable in the manner provided by law out of the property of the Company or any other obligor upon the Securities, wherever situated.

If an Event of Default with respect to the Securities occurs and is continuing, the Trustee may in its discretion proceed to protect and enforce its rights and the rights of the Holders by such appropriate judicial proceedings as the Trustee shall deem most effectual to protect and enforce any such rights, whether for the specific enforcement of any covenant or agreement in this Indenture or in aid of the exercise of any power granted herein, or to enforce any other proper remedy.

Section 4.04 Trustee May File Proofs of Claim.

In case of the pendency of any receivership, insolvency, liquidation, bankruptcy, reorganization, arrangement, adjustment, composition or other judicial proceeding relating to the Company or the property of the Company or its creditors, the Trustee (irrespective of whether the principal of the Securities shall then be due and payable as therein expressed or by declaration or otherwise and irrespective of whether the Trustee shall have made any demand on the Company for the payment of any overdue principal) shall be entitled and empowered, by intervention in such proceeding or otherwise:

(i) to file and prove a claim for the whole amount of principal owing in respect of the Securities and to file such other papers or documents (and take such other actions, including serving on a committee of creditors) as may be necessary or advisable in order to have the claims of the Trustee (including any claim for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel) and of the Holders allowed in such judicial proceeding; and

(ii) to collect and receive any moneys or other property payable or deliverable on any such claims and to distribute the same;

and any custodian, receiver, assignee, trustee, liquidator, sequestrator (or other similar official) in any such judicial proceeding is hereby authorized by each Holder to make such payments to the Trustee, and, in the event that the Trustee shall consent to the making of such payments directly to the Holders, to pay to the Trustee any amount due to it for the reasonable compensation, expenses, disbursements and advances of the Trustee and any predecessor Trustee, their agents and counsel, and any other amounts due the Trustee or any predecessor Trustee under Section 5.05.

Subject to Article Seven and Section 8.02, nothing herein contained shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Holder any plan of reorganization, arrangement, adjustment or composition affecting the Securities or the rights of any Holder thereof, or to authorize the Trustee to vote in respect of the claim of any Holder in any such proceeding.

Section 4.05 Trustee May Enforce Claims Without Possession of Securities.

All rights of action and claims under this Indenture or any of the Securities may be prosecuted and enforced by the Trustee without the possession of any of the Securities or the production thereof in any proceeding relating thereto, and any such proceeding instituted by the Trustee shall be brought in its own name and as trustee of an express trust, and any recovery of judgment shall, after provision for the payment of the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, be for the ratable benefit of the Holders of the Securities in respect of which such judgment has been recovered.

Section 4.06 Application of Money Collected.

Any money collected by the Trustee pursuant to this Article Four shall be applied in the following order, at the date or dates fixed by the Trustee and, in case of the distribution of such money on account of principal upon presentation of the Securities, or both, as the case may be, and the notation thereon of the payment if only partially paid and upon surrender thereof if fully paid:

FIRST: To the payment of all amounts due the Trustee and any predecessor Trustee under Section 5.05;

SECOND: To the payment of the amounts then due and unpaid upon the Securities for principal in respect of which or for the benefit of which such money has been collected, ratably, without preference or priority of any kind, according to the aggregate amounts due and payable on such Securities; and

THIRD: To the payment of the remainder, if any, to the Company or any other Person or Persons entitled thereto.

Section 4.07 Limitation on Suits.

No Holder shall have any right to pursue any remedy, with respect to this Indenture, or for the appointment of a receiver or trustee, or for any other remedy hereunder, unless:

(1) such Holder has previously given written notice to the Trustee of a continuing Event of Default;

(2) the Holders of not less than 51% in principal amount of the Outstanding Securities shall have made written request to the Trustee to pursue any remedy;

(3) such Holder or Holders have offered to the Trustee reasonable indemnity against the costs, expenses and liabilities to be incurred in compliance with such written request;

(4) the Trustee for 60 days after its receipt of such notice, written request and offer of indemnity has failed to comply with such written request; and

(5) no direction inconsistent with such written request has been given to the Trustee during such 60-day period by the Holders of a majority in principal amount of the Outstanding Securities;

it being understood and intended that no one or more of such Holders shall have any right in any manner whatever by virtue of, or by availing of, any provision of this Indenture to affect, disturb or prejudice the rights of any other of such Holders, or to obtain or to seek to obtain priority or preference over any other of such Holders or to enforce any right under this Indenture, except in the manner herein provided and for the equal and ratable benefit of all such Holders.

Section 4.08 Unconditional Right of Holders to Receive Payment, to Redeem and to Convert.

Notwithstanding any other provision in this Indenture, the Holder of any Security shall have the right which is absolute and unconditional to receive payment of the principal of such Security on the Stated Maturity Date expressed in such Security, to redeem such Security in accordance with Article 11, and to convert such Security in accordance with Article Ten, and to institute suit for the enforcement of any such payment, and such rights shall not be impaired without the consent of such Holder.

Section 4.09 Restoration of Rights and Remedies.

If the Trustee or any Holder has instituted any proceeding to enforce any right or remedy under this Indenture and such proceeding has been discontinued or abandoned for any reason, or has been determined adversely to the Trustee or to such Holder, then and in every such case the Company, the Trustee and the Holders shall, subject to any determination in such proceeding, be restored severally and respectively to their former positions hereunder and thereafter all rights and remedies of the Trustee and the Holders shall continue as though no such proceeding had been instituted.

Section 4.10 Rights and Remedies Cumulative.

Except as otherwise provided with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities in the last paragraph of Section 3.06, no right or remedy herein conferred upon or reserved to the Trustee or to the Holders is intended to be exclusive of any other right or remedy, and every right and remedy shall, to the extent permitted by law, be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other appropriate right or remedy.

Section 4.11 Delay or Omission Not Waiver.

No delay or omission of the Trustee or of any Holder to exercise any right or remedy accruing upon any Event of Default shall impair any such right or remedy or constitute a waiver of any such Event of Default or an acquiescence therein. Every right and remedy given by this Article Four or by law to the Trustee or to the Holders may be exercised from time to time, and as often as may be deemed expedient, by the Trustee or by the Holders, as the case may be.

Section 4.12 Control by Holders of Securities.

The Holders of a majority in principal amount of the Outstanding Securities shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or exercising any trust or power conferred on the Trustee with respect to the Securities, provided that:

(1) such direction shall not be in conflict with any rule of law or with this Indenture;

(2) the Trustee may take any other action deemed proper by the Trustee which is not inconsistent with such direction; and

(3) the Trustee need not take any action which might involve it in personal liability or be unjustly prejudicial to the Holders not consenting.

Section 4.13 Waiver of Past Defaults.

Subject to Section 4.02, the Holders of not less than a majority in principal amount of the Outstanding Securities may on behalf of the Holders of all the Securities waive any past default hereunder with respect to the Securities and its consequences, except a default:

(1) in the payment of the principal of any Security;

(2) in respect of the right to convert any Security in accordance with Article Ten; or

(3) in respect of a covenant or provision hereof which under Article Eight cannot be modified or amended without the consent of the Holder of each Outstanding Security affected.

Upon any such waiver, such default shall cease to exist, and any Event of Default arising therefrom shall be deemed to have been cured, for every purpose of this Indenture; but no such waiver shall extend to any subsequent or other default or Event of Default or impair any right consequent thereon.

Section 4.14 Waiver of Stay or Extension Laws.

The Company covenants (to the extent that it may lawfully do so) that it will not at any time insist upon, or plead, or in any manner whatsoever claim or take the benefit or advantage of, any stay or extension law wherever enacted, now or at any time hereafter in force, which may affect the covenants or the performance of this Indenture; and the Company (to the extent that it may lawfully do so) hereby expressly waives all benefit or advantage of any such law, and covenants that it will not hinder, delay or impede the execution of any power herein granted to the Trustee, but will suffer and permit the execution of every such power as though no such law had been enacted.

Section 4.15 Undertaking for Costs.

In any suit for the enforcement of any right or remedy under this Indenture, or in any suit against the Trustee for any action taken, suffered or omitted by it as Trustee, a court may require any party litigant in such suit to file an undertaking to pay the costs of such suit, and may assess reasonable costs, including reasonable attorneys' fees and expenses, against any such party litigant, in the manner and to the extent provided in the Trust Indenture Act; provided, that neither this Section nor the Trust Indenture Act shall be deemed to authorize any court to require such an undertaking or to make such an assessment in any suit instituted by the Company or in any suit for the enforcement of the right to convert any Security in accordance with Article Ten.

ARTICLE V

THE TRUSTEE

Section 5.01 Duties of Trustee and Notice of Defaults.

Subject to the provisions of Sections 315(a) through 315(d) of the Trust Indenture Act:

(1) If a Default or an Event of Default has occurred and is continuing, the Trustee shall exercise such of the rights and powers vested in it by this Indenture and use the same degree of care and skill in its exercise thereof as a prudent Person would exercise or use under the circumstances in the conduct of his own affairs;

(2) Except during the continuance of a Default or an Event of Default, the Trustee need perform only those duties as are specifically set forth in this Indenture and no covenants or obligations shall be implied in this Indenture that are adverse to the Trustee;

(3) The Trustee may not be relieved from liability for its own negligent action, its own negligent failure to act or its own willful misconduct, except that:

(a) this subsection (3) does not limit the effect of subsection (2) of Section 1.02 or subsection (2) of this Section 5.01;

(b) the Trustee shall not be liable for any error of judgment made in good faith by a Responsible Officer, unless it is proved that the Trustee was negligent in ascertaining the pertinent facts; and

(c) the Trustee shall not be liable with respect to any action it takes or omits to take in good faith, in accordance with a direction of the Holders of a majority in principal amount of Outstanding Securities relating to the time, method and place of conducting any proceeding for any remedy available to the Trustee or exercising any trust or power confirmed upon the Trustee under this Indenture;

(4) No provision of this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder or in the exercise of any of its rights or powers if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it; and

(5) The Trustee shall not be liable for interest on any money or assets received by it or held by it in trust except as the Trustee may agree in writing with the Company. Money held by the Trustee in trust hereunder need not be segregated from other funds except to the extent required by law.

Within 30 days after the occurrence of any Default hereunder with respect to the Securities, the Trustee shall transmit in the manner and to the extent provided in Section 313(c) of the Trust Indenture Act, notice of such Default hereunder known to the Trustee (a "**Notice of Default**"), unless such Default shall have been cured or waived; *provided, however*, that, except in the case of a Default in the payment of the principal of any Security on the Stated Maturity Date, the Trustee shall be protected in withholding such Notice of Default if and so long as the board of directors, the executive committee or a trust committee of directors and/or Responsible Officers of the Trustee in good faith determine that the withholding of such notice is in the interest of the Holders.

Section 5.02 Certain Rights of Trustee.

Subject to Section 5.01 and the provisions of Sections 315(a) through 315(d) of the Trust Indenture Act:

(1) The Trustee may conclusively rely on, and shall be fully protected in acting or refraining from acting upon, any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, note, coupon or other paper or document believed by it to be genuine and to have been signed or presented by the proper party or parties;

(2) Any request or direction of the Company mentioned herein shall be sufficiently evidenced by a Company Request or Company Order (other than delivery of any Security to the Trustee for authentication and delivery pursuant to Section 3.03 which shall be sufficiently evidenced as provided therein) and any resolution of the Board of Directors may be sufficiently evidenced by a Board Resolution;

(3) Whenever in the administration of this Indenture the Trustee shall deem it desirable that a matter be proved or established prior to taking, suffering or omitting any action hereunder, the Trustee (unless other evidence be herein specifically prescribed) may, in the absence of bad faith on its part, conclusively rely upon a Board Resolution, an Opinion of Counsel or an Officers' Certificate;

(4) The Trustee may consult with counsel and the written advice of such counsel or any Opinion of Counsel shall be full and complete authorization and protection in respect of any action taken, suffered or omitted by it hereunder in good faith and in reliance thereon;

(5) The Trustee shall be under no obligation to exercise any of the rights or powers vested in it by this Indenture at the request or direction of any of the Holders pursuant to this Indenture, unless such Holders shall have offered to the Trustee reasonable security or indemnity satisfactory to it against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction;

(6) The Trustee shall not be bound to make any investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond,

debenture, note, coupon or other paper or document, but the Trustee, in its discretion, may make such further inquiry or investigation into such facts or matters as it may see fit, and, if the Trustee shall determine to make such further inquiry or investigation, it shall be entitled upon reasonable notice and at reasonable times during normal business hours to examine the books, records and premises of the Company, personally or by agent or attorney;

(7) The Trustee may execute any of the trusts or powers hereunder or perform any duties hereunder either directly or by or through agents or attorneys and the Trustee shall not be responsible for any misconduct or negligence on the part of any agent or attorney appointed with due care by it hereunder;

(8) The Trustee shall not be deemed to have notice of any Default or Event of Default unless a Responsible Officer of the Trustee has actual knowledge thereof or unless written notice of any event which is in fact such a default is sent to the Trustee at the Corporate Trust Office of the Trustee, and such notice references the Securities and this Indenture;

(9) The rights, privileges, protections, immunities and benefits given to the Trustee, including its right to be indemnified, are extended to, and shall be enforceable by, the Trustee in each of its capacities hereunder;

(10) The permissive rights of the Trustee enumerated herein shall not be construed as duties; and

(11) The Trustee may request that the Company deliver an Officers' Certificate setting forth the names of individuals and/or titles of officers authorized at such time to take specified actions pursuant to this Indenture, which Officers' Certificate may be signed by any person authorized to sign an Officers' Certificate, including any person specified as so authorized in any such certificate previously delivered and not superseded.

The Trustee shall not be required to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder, or in the exercise of any of its rights or powers, if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it.

Section 5.03 Not Responsible for Recitals or Issuance of Securities.

The recitals contained herein and in the Securities, except the Trustee's certificate of authentication, shall be taken as the statements of the Company, and neither the Trustee nor any Authenticating Agent assumes any responsibility for their correctness. The Trustee makes no representations as to the validity or sufficiency of this Indenture or of the Securities, except that the Trustee represents that it is duly authorized to execute and deliver this Indenture, authenticate the Securities and perform its obligations hereunder and that the statements made by it in a Statement of Eligibility on Form T-1 supplied to the Company are true and accurate, subject to the qualifications set forth therein. Neither the Trustee nor any Authenticating Agent shall be accountable for the use or application by the Company of Securities or the proceeds thereof, and neither the Trustee nor any Authenticating Agent shall be responsible for any statement of the Company in any document issued in connection with the sale of the Securities.

Section 5.04 May Hold Securities.

The Trustee, any Paying Agent, Security Registrar, Authenticating Agent, Conversion Agent, Redemption Agent or any other agent of the Company, in its individual or any other capacity, may become the owner of Securities and, subject to Sections 310(b) and 311 of the Trust Indenture Act, may otherwise deal with the Company with the same rights it would have if it were not Trustee, Paying Agent, Security Registrar, Authenticating Agent, Conversion Agent, Redemption Agent or such other agent.

Section 5.05 Compensation and Reimbursement and Indemnification of Trustee.

The Company agrees:

(1) To pay to the Trustee or any predecessor Trustee from time to time such reasonable compensation for all services rendered by it hereunder as has been agreed upon from time to time in writing (which compensation shall not be limited by any provision of law in regard to the compensation of a trustee of an express trust);

(2) Except as otherwise expressly provided herein, to reimburse each of the Trustee and any predecessor Trustee upon its request for all reasonable and documented expenses, disbursements and advances incurred or made by the Trustee or any predecessor Trustee in accordance with any provision of this Indenture (including the reasonable compensation and the expenses and disbursements of its agents and counsel), except any such expense, disbursement or advance as may be attributable to its negligence, bad faith or willful misconduct; and

(3) To indemnify each of the Trustee or any predecessor Trustee for, and to hold it harmless against, any loss, liability or expense incurred without negligence, bad faith or willful misconduct on its own part, arising out of or in connection with the acceptance or administration of the trust or trusts hereunder, including the costs and expenses (including the reasonable compensation and the expenses and disbursements of its agents and counsel) of defending itself against any claim or liability in connection with the exercise or performance of any of its powers or duties hereunder.

As security for the performance of the obligations of the Company under this Section 5.05, the Trustee shall have a claim prior to the Securities upon all property and funds held or collected by the Trustee as such, except funds held in trust for the payment of principal of particular Securities.

When the Trustee incurs expenses or renders services after an Event of Default specified in Section 4.01 occurs, the expenses and compensation for such services are intended to constitute expenses of administration under any Bankruptcy Law.

The provisions of this Section 5.05 shall survive the resignation or removal of the Trustee and the satisfaction, termination or discharge of this Indenture.

Section 5.06 Corporate Trustee Required; Eligibility.

There shall at all times be a Trustee hereunder which shall be eligible to act as Trustee under Section 310(a)(1) of the Trust Indenture Act and shall have a combined capital and surplus of at least $10 million. If such corporation publishes reports of condition at least annually, pursuant to law or to the requirements of any Federal, state, territorial or District of Columbia supervising or examining authority, then for the purposes of this Section 5.06, the combined capital and surplus of such corporation shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. If at any time the Trustee shall cease to be eligible in accordance with the provisions of this Section 5.06, it shall resign immediately in the manner and with the effect hereinafter specified in this Article Five.

Section 5.07 Disqualification; Conflicting Interests.

If the Trustee has or shall acquire a conflicting interest within the meaning of the Trust Indenture Act, the Trustee shall either eliminate such interest or resign, to the extent and in the manner provided by, and subject to the provisions of, the Trust Indenture Act and this Indenture.

Section 5.08 Resignation and Removal; Appointment of Successor.

(a) No resignation or removal of the Trustee and no appointment of a successor Trustee pursuant to this Article Five shall become effective until the acceptance of appointment by the successor Trustee in accordance with the applicable requirements of Section 5.09 and any and all amounts then due and owing to the Trustee hereunder have been paid in full.

(b) The Trustee may resign at any time by giving written notice thereof to the Company.

(c) The Trustee may be removed at any time by (i) the Company, by an Officers' Certificate delivered to the Trustee, provided that contemporaneously therewith (x) the Company immediately appoints a successor Trustee meeting the requirements of Section 5.06 hereof and (y) the terms of Section 5.09 hereof are complied with in respect of such appointment (the Trustee being removed hereby agreeing to execute the instrument contemplated by Section 5.09(b) hereof, if applicable, under such circumstances) and *provided further* that no Default shall have occurred and then be continuing at such time, or (ii) Act of the Holders of a majority in principal amount of the Outstanding Securities delivered to the Trustee and to the Company.

(d) If at any time:

1. the Trustee shall fail to comply with the provisions of Section 310(b) of the Trust Indenture Act after written request therefore by the Company or by any Holder of a Security who has been a bona fide Holder of a Security for at least six months;
2. the Trustee shall cease to be eligible under Section 5.06 and shall fail to resign after written request therefore by the Company or by any Holder of a Security who has been a bona fide Holder of a Security for at least six months; or
3. the Trustee shall become incapable of acting or shall be adjudged a bankrupt or insolvent or a receiver of the Trustee or of its property shall be appointed or any public officer shall take charge or control of the Trustee or of its property or affairs for the purpose of rehabilitation, conservation or liquidation;

then, in any such case, (i) the Company by or pursuant to a Board Resolution may remove the Trustee and appoint a successor Trustee, or (ii) subject to Section 315(e) of the Trust Indenture Act, any Holder of a Security who has been a bona fide Holder of a Security for at least six months may, on behalf of himself and all others similarly situated, petition any court of competent jurisdiction for the removal of the Trustee and the appointment of a successor Trustee.

(e) If an instrument of acceptance by a successor Trustee shall not have been delivered to the Trustee within 30 days after the giving of a notice of resignation or the delivery of an Act of removal, the Trustee resigning or being removed may petition any court of competent jurisdiction for the appointment of a successor Trustee.

(f) If the Trustee shall resign, be removed or become incapable of acting for any cause, the Company, by or pursuant to a Board Resolution, shall promptly appoint a successor Trustee. If no successor Trustee shall have been so appointed by the Company and accepted appointment in the manner hereinafter provided within 90 days, any Holder who has been a bona fide Holder for at least six months may, on behalf of himself and all others similarly situated, petition any court of competent jurisdiction for the appointment of a successor Trustee.

(g) All retiring Trustees must provide the Successor Trustee with all applicable books and records relating to the performance of the role of Trustee.

(h) The Company shall give notice of each resignation and each removal of the Trustee and each appointment of a successor Trustee in the manner provided for notices to the Holders in Section 1.06. Each notice shall include the name of the successor Trustee and the address of its Corporate Trust Office.

Section 5.09 Acceptance of Appointment by Successor.

(a) In case of the appointment hereunder of a successor Trustee, every such successor Trustee shall execute, acknowledge and deliver to the Company and to the retiring Trustee an instrument accepting such appointment, and thereupon the resignation or removal of the retiring Trustee shall become effective and such

successor Trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee; provided, however, that on request of the Company or the successor Trustee, such retiring Trustee shall, upon payment of its charges, execute and deliver an instrument transferring to such successor Trustee all the rights, powers and trusts of the retiring Trustee, and shall duly assign, transfer and deliver to such successor Trustee all property and money held by such retiring Trustee hereunder, subject nevertheless to its claim, if any, provided for in Section 5.05.

(b) Upon request of any such successor Trustee, the Company shall execute any and all instruments for more fully and certainly vesting in and confirming to such successor Trustee all such rights, powers and trusts referred to in paragraph (a) of this Section 5.09, as the case may be.

(c) No successor Trustee shall accept its appointment unless at the time of such acceptance such successor Trustee shall be qualified and eligible under this Article Five.

Section 5.10 Merger, Conversion, Consolidation or Succession to Business.

Any corporation or other entity into which the Trustee may be merged or converted or with which it may be consolidated, or any corporation or other entity resulting from any merger, conversion or consolidation to which the Trustee shall be a party, or any corporation or other entity succeeding to all or substantially all of the corporate trust business of the Trustee, shall be the successor of the Trustee hereunder, provided such corporation or entity shall be otherwise qualified and eligible under this Article Five, without the execution or filing of any paper or any further act on the part of any of the parties hereto. In case any Securities shall have been authenticated, but not delivered, by the Trustee then in office, any successor by merger, conversion or consolidation to such authenticating Trustee may adopt such authentication and deliver the Securities so authenticated with the same effect as if such successor Trustee had itself authenticated such Securities. In case any Securities shall not have been authenticated by such predecessor Trustee, any such successor Trustee may authenticate and deliver such Securities, in either its own name or that of its predecessor Trustee, with the full force and effect which this Indenture provides for the certificate of authentication of the Trustee; *provided, however*, that the right to adopt the certificate of authentication of any predecessor Trustee or to authenticate Securities in the name of any predecessor Trustee shall apply only to its successor or successors by merger, conversion or consolidation.

Section 5.11 Appointment of Authenticating Agent.

At any time when any of the Securities remain Outstanding, the Trustee may appoint an Authenticating Agent or Agents acceptable to the Company which shall be authorized to act on behalf of the Trustee to authenticate Securities issued upon original issue or upon exchange, registration of transfer or partial redemption or partial conversion thereof, and Securities so authenticated shall be entitled to the benefits of this Indenture and shall be valid and obligatory for all purposes as if authenticated by the Trustee hereunder. Any such appointment shall be evidenced by an instrument in writing signed by a Responsible Officer of the Trustee, a copy of which instrument shall be promptly furnished to the Company. Wherever reference is made in this Indenture to the authentication and delivery of Securities by the Trustee or the Trustee's certificate of authentication, such reference shall be deemed to include authentication and delivery on behalf of the Trustee by an Authenticating Agent and a certificate of authentication executed on behalf of the Trustee by an Authenticating Agent. Each Authenticating Agent shall be acceptable to the Company and shall at all times be a bank or trust company or corporation organized and doing business and in good standing under the laws of the United States of America or of any state or the District of Columbia, authorized under such laws to act as Authenticating Agent, having a combined capital and surplus of not less than $10 million and subject to supervision or examination by Federal or state authorities. If such Authenticating Agent publishes reports of condition at least annually, pursuant to law or the requirements of the aforesaid supervising or examining authority, then for the purposes of this Section 5.11, the combined capital and surplus of such Authenticating Agent shall be deemed to be its combined capital and

surplus as set forth in its most recent report of condition so published. In case at any time an Authenticating Agent shall cease to be eligible in accordance with the provisions of this Section 5.11, such Authenticating Agent shall resign immediately in the manner and with the effect specified in this Section 5.11.

Any corporation or other entity into which an Authenticating Agent may be merged or converted or with which it may be consolidated, or any corporation or other entity resulting from any merger, conversion or consolidation to which such Authenticating Agent shall be a party, or any corporation succeeding to the corporate agency or corporate trust business of an Authenticating Agent, shall continue to be an Authenticating Agent, provided such corporation or entity shall be otherwise eligible under this Section 5.11, without the execution or filing of any paper or further act on the part of the Trustee or the Authenticating Agent.

An Authenticating Agent may at any time resign by giving written notice of resignation to the Trustee and to the Company. The Trustee may at any time terminate the agency of an Authenticating Agent by giving written notice of termination to such Authenticating Agent and to the Company. Upon receiving such a notice of resignation or upon such a termination, or in case at any time such Authenticating Agent shall cease to be eligible in accordance with the provisions of this Section 5.11, the Trustee may appoint a successor Authenticating Agent which shall be acceptable to the Company and shall promptly give written notice of such appointment to all Holders. Any successor Authenticating Agent upon acceptance of its appointment hereunder shall become vested with all the rights, powers and duties of its predecessor hereunder, with like effect as if originally named as an Authenticating Agent herein. No successor Authenticating Agent shall be appointed unless eligible under the provisions of this Section 5.11.

The Company agrees to pay to each Authenticating Agent from time to time reasonable compensation including reimbursement of its reasonable and documented expenses for its services under this Section 5.11.

If an appointment is made pursuant to this Section 5.11, the Securities may have endorsed thereon, in addition to or in lieu of the Trustee's certificate of authentication, an alternate certificate of authentication substantially in the following form:

This is one of the Securities referred to in the within-mentioned Indenture.

AMERICAN STOCK TRANSFER &
TRUST COMPANY, LLC, Trustee

By: _____
Authenticating Agent

By: _____
Authorized Officer

If all of the Securities may not be originally issued at one time, and the Trustee does not have an office capable of authenticating Securities upon original issuance located in a Place of Payment where the Company wishes to have Securities authenticated upon original issuance, the Trustee, if so requested by the Company in writing (which writing need not comply with Section 1.02 and need not be accompanied by an Opinion of Counsel), shall appoint in accordance with this Section 5.11 an Authenticating Agent having an office in a Place of Payment designated by the Company with respect the Securities, provided that the terms and conditions of such appointment are acceptable to the Trustee.

ARTICLE VI

HOLDERS' LISTS AND REPORTS BY TRUSTEE AND COMPANY

Section 6.01 Disclosure of Names and Addresses of Holders.

In accordance with Section 312(a) of the Trust Indenture Act, the Company shall furnish or cause to be furnished to the Trustee:

(1) semi-annually a list, in each case in such form as the Trustee may reasonably require, of the names and addresses of Holders as of the applicable date; and

(2) at such other times as the Trustee may request in writing, within 30 days after the receipt by the Company of any such request, a list of similar form and content as of a date not more than 15 days prior to the time such list is furnished;

provided, *however*, that so long as the Trustee is the Security Registrar no such list shall be required to be furnished.

Section 6.02 Preservation of Information; Communications to Holders.

The Trustee shall comply with the obligations imposed upon it pursuant to Section 312 of the Trust Indenture Act.

Every Holder, by receiving and holding the same, agrees with the Company and the Trustee that neither the Company, the Trustee, any Paying Agent, the Conversion Agent, the Redemption Agent, the Escrow Agent nor any Security Registrar shall be held accountable by reason of the disclosure of any such information as to the names and addresses of the Holders in accordance with Section 312 of the Trust Indenture Act, regardless of the source from which such information was derived, and that the Trustee shall not be held accountable by reason of mailing any material pursuant to a request made under Section 312(b) of the Trust Indenture Act.

Section 6.03 Reports by Trustee.

Within 60 days after May 15 of each year commencing with May 15, 2016, the Trustee, if so required under the Trust Indenture Act, shall transmit by mail to all Holders of Securities as provided in Section 313(c) of the Trust Indenture Act a brief report dated as of such May 15 which meets the requirements of Section 313(a) of the Trust Indenture Act.

A copy of each such report shall, at the time of such transmission to Holders, be filed by the Trustee with each stock exchange, if any, upon which the Securities are listed, with the Commission and with the Company. The Company will promptly notify the Trustee of the listing of the Securities on any stock exchange. The Trustee also will comply with Section 313(b)(2) of the Trust Indenture Act.

Section 6.04 Reports by Company.

The Company shall file with the Trustee within 30 days after the Company is required to file the same with the Commission, copies of the annual reports and information, documents and other reports (or copies of such portions of the foregoing as the Commission may prescribe) which the Company is required to file with the Commission pursuant to Section 13 or 15(d) of the Exchange Act. If the Company is not required to file information, documents or reports pursuant to either of those sections, then the Company shall provide to the Trustee such reports as may be prescribed to be filed by the Company by the Commission at such time. To the extent the Company has filed such information with the Commission through the Commission's Electronic Data Gathering, Analysis and Retrieval (commonly known as "**EDGAR**") system, or any successor system employed by the Commission, the Company shall be deemed to have complied with this Section 6.04.

Delivery of such reports, information and documents to the Trustee is for informational purposes only and the Trustee's receipt of such shall not constitute constructive notice of any information contained therein or determinable from information contained therein, including the Company's compliance with any of its covenants hereunder (as to which the Trustee is entitled to rely exclusively on Officers' Certificates).

Section 6.05 Preferential Collection of Claims Against Company.

The Trustee is subject to Section 311(a) of the Trust Indenture Act, excluding any creditor relationship listed in Section 311(b) of the Trust Indenture Act. A Trustee who has resigned or been removed shall be subject to Section 311(a) of the Trust Indenture Act to the extent indicated therein.

ARTICLE VII

CONSOLIDATION, MERGER, CONVEYANCE OR TRANSFER

Section 7.01 Company May Consolidate, Etc., Only on Certain Terms.

The Company shall not consolidate with or merge with or into any other corporation or convey or transfer its properties and assets substantially as an entirety to any Person, unless:

(1) the successor entity which shall be a Corporation organized and existing under the laws of any state of the United States of America or the District of Columbia, any country comprising the European Union, the United Kingdom or Japan shall expressly assume, by an indenture supplemental hereto executed by the successor Person and delivered to the Trustee, the due and punctual payment of the principal of all the Securities and the performance of every obligation in this Indenture and the Outstanding Securities on the part of the Company to be performed or observed and shall provide for conversion rights in accordance with the provisions of the Indenture and the Securities and if any such successor entity is not subject to the jurisdiction of any state of the United States of America or the District of Columbia, such entity submits to jurisdiction for all purposes with respect to the Securities and appoints an agent for service of process in the United States of America;

(2) immediately after giving effect to such transaction or series of transactions, no Event of Default or event which, after notice or lapse of time, or both, would become an Event of Default, shall have occurred and be continuing; and

(3) either the Company or the successor Person shall have delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that such consolidation, merger, conveyance, transfer or lease and, if a supplemental indenture is required in connection with such transaction, such supplemental indenture comply with this Article Seven and that all conditions precedent herein provided for relating to such transaction have been complied with.

Notwithstanding the foregoing, the Company may consolidate with, or merge with or into, an Affiliate incorporated for the purpose of incorporating in another jurisdiction of the United States of America or any state thereof or the District of Columbia without complying with the requirement of paragraph (2) above.

Notwithstanding the foregoing, subject to compliance with Section 9.07 and the terms of the Escrow Agreement, the Company may convey, transfer or lease all or substantially all of its properties and assets as an entirety to any Subsidiary or Subsidiaries, in one transaction or a series of related transactions and the transfer by the Company, in a single transaction or series of transactions, of all or substantially all of its cash, cash equivalents and marketable securities of non-Affiliates for which the Company receives fair market value, as determined by its Board of Directors, will not constitute a sale of all or substantially all of the Company's assets.

For purposes of this Section, the sale, lease, conveyance, assignment, transfer, or other disposition of all or substantially all of the properties and assets of one or more Subsidiaries, which property and assets, if held by the Company instead of such Subsidiaries, would constitute all or substantially all of the properties and assets of the Company on a consolidated basis, shall be deemed to be the transfer of all or substantially all of the properties and assets of the Company.

Section 7.02 Successor Person Substituted.

Upon any consolidation or merger, or any conveyance or transfer of the properties and assets of the Company substantially as an entirety in accordance with Section 7.01, the successor corporation formed by such consolidation or into which the Company is merged, or the successor Person to which such conveyance or transfer is made, shall succeed to, and be substituted for, and may exercise every right and power of, the Company under this Indenture with the same effect as if such successor had been named as the Company herein; and in the event of any such conveyance or transfer, except in the case of a lease to another Person, the Company shall be discharged from all obligations and covenants under this Indenture and the Securities.

ARTICLE VIII

SUPPLEMENTAL INDENTURES

Section 8.01 Supplemental Indentures Without Consent of Holders.

Without the consent of any Holders of Securities, the Company, when authorized by or pursuant to a Board Resolution, and the Trustee, at any time and from time to time, may enter into one or more indentures supplemental hereto, in form reasonably satisfactory to the Trustee, for any of the following purposes:

(1) to evidence the succession of another Person to the Company and the assumption by any such successor of the covenants of the Company herein and in the Securities;

(2) to add to the covenants of the Company for the benefit of the Holders or to surrender any right or power herein conferred upon the Company;

(3) to add any additional Events of Default for the benefit of the Holders; *provided, however*, that in respect of any such additional Events of Default such supplemental indenture may provide for a particular period of grace after default (which period may be shorter or longer than that allowed in the case of other Defaults) or may provide for an immediate enforcement upon such Default or may limit the remedies available to the Trustee upon such Default or may limit the right of the Holders of a majority in aggregate principal amount of the Securities to which such additional Events of Default apply to waive such default;

(4) to evidence and provide for the acceptance of appointment hereunder by a successor Trustee with respect to the Securities; or

(5) to cure any ambiguity, to correct or supplement any provision herein which may be inconsistent with any other provision herein, or to make any other provisions with respect to matters or questions arising under this Indenture; *provided* that such action shall not adversely affect the interests of the Holders in any material respect.

Section 8.02 Supplemental Indentures with Consent of Holders.

With the consent of the Holders of not less than a majority in aggregate principal amount of all Outstanding Securities, by Act of said Holders delivered to the Company and the Trustee, the Company, when authorized by or pursuant to a Board Resolution, and the Trustee may enter into an indenture or indentures supplemental hereto for the purpose of adding any provisions to or changing in any manner or eliminating any of the provisions of this Indenture which affects the Securities or of modifying in any manner the rights of the Holders of Securities under this Indenture; *provided, however*, that no such supplemental indenture shall, without the consent of the Holder of each Outstanding Security affected thereby:

(1) change the Stated Maturity Date of the Securities, reduce the principal amount of the Securities, reduce the amount thereof provable in bankruptcy pursuant to Section 4.04, change the currency of payment or Place of Payment where any Security or any principal of is payable, impair the right to institute suit for the enforcement of any such payment on or after the Stated Maturity Date thereof or adversely affect any right to convert any Security as may be provided herein;

(2) reduce the percentage in principal amount of the Outstanding Securities, the consent of whose Holders is required for any such supplemental indenture, or the consent of whose Holders is required for any waiver (of compliance with certain provisions of this Indenture or certain defaults hereunder and their consequences) provided for in this Indenture, or reduce the requirements for quorum or voting; or

(3) modify any of the provisions of Section 4.13 or this Section 8.02, except to increase any such percentage or to provide that certain other provisions of this Indenture cannot be modified or waived without the consent of the Holder of each Outstanding Security affected thereby; *provided*, *however*, that this clause shall not be deemed to require the consent of any Holder with respect to changes in the references to "the Trustee" and concomitant changes in this Section 8.02, or the deletion of this proviso, in accordance with the requirements of Section 8.01(6).

It shall not be necessary for any Act of Holders under this Section 8.02 to approve the particular form of any proposed supplemental indenture, but it shall be sufficient if such Act shall approve the substance thereof.

The Company may, but shall not be obligated to, fix a record date for the purpose of determining the Persons entitled to consent to any indenture supplemental hereto. If a record date is fixed, the Holders on such record date, or their duly designated proxies, and only such Persons, shall be entitled to consent to such supplemental indenture, whether or not such Holders remain Holders after such record date; *provided*, that unless such consent shall have become effective by virtue of the requisite percentage having been obtained prior to the date which is 90 days after such record date, any such consent previously given shall automatically and without further action by any Holder be cancelled and of no further effect.

Section 8.03 Execution of Supplemental Indentures.

In executing, or accepting the additional trusts created by, any supplemental indenture permitted by this Article Eight or the modification thereby of the trusts created by this Indenture, the Trustee shall be entitled to receive, and shall be fully protected in relying upon, in addition to the documents required by Section 1.02 of this Indenture, an Opinion of Counsel stating that the execution of such supplemental indenture is authorized or permitted by this Indenture. The Trustee may, but shall not be obligated to, enter into any such supplemental indenture which affects the Trustee's own rights, duties or immunities under this Indenture or otherwise.

Section 8.04 Effect of Supplemental Indentures.

Upon the execution of any supplemental indenture under this Article Eight, this Indenture shall be modified in accordance therewith, and such supplemental indenture shall form a part of this Indenture for all purposes; and every Holder theretofore or thereafter authenticated and delivered hereunder shall be bound thereby.

Section 8.05 Conformity with Trust Indenture Act.

Every supplemental indenture executed pursuant to this Article Eight shall conform to the requirements of the Trust Indenture Act as then in effect.

Section 8.06 Reference in Securities to Supplemental Indentures.

Securities authenticated and delivered after the execution of any supplemental indenture pursuant to this Article Eight may, and shall, if required by the Trustee, bear a notation in form approved by the Trustee as to any matter provided for in such supplemental indenture. If the Company shall so determine, new Securities so modified as to conform, in the opinion of the Trustee and the Company, to any such supplemental indenture may be prepared and executed by the Company and authenticated and delivered by the Trustee in exchange for Outstanding Securities.

ARTICLE IX

COVENANTS

Section 9.01 Payment of Principal.

The Company covenants and agrees for the benefit of the Holders that it will duly and punctually pay the principal of the Securities in accordance with the terms of the Securities and this Indenture.

Section 9.02 Maintenance of Office or Agency.

The Company shall maintain in each Place of Payment an office or agency where Securities may be presented or surrendered for payment, where Securities may be surrendered for registration of transfer, where Securities may be surrendered for conversion and where notices and demands to or upon the Company in respect of the Securities and this Indenture may be served. The Company will give prompt written notice to the Trustee of the location, and any change in the location, of each such office or agency. If at any time the Company shall fail to maintain any such required office or agency in respect of the Securities or shall fail to furnish the Trustee with the address thereof, such presentations, surrenders, notices and demands may be made or served at the Corporate Trust Office of the Trustee, and the Company hereby appoints the same as its agent to receive such respective presentations, surrenders, notices and demands, and the Company hereby appoints the Trustee its agent to receive all such presentations, surrenders, notices and demands.

The Company may also from time to time designate one or more other offices or agencies where the Securities may be presented or surrendered for any or all of such purposes, and may from time to time rescind such designations; *provided*, *however*, that no such designation or rescission shall in any manner relieve the Company of its obligation to maintain an office or agency in accordance with the requirements set forth above for Securities for such purposes. The Company will give prompt written notice to the Trustee of any such designation or rescission and of any change in the location of any such other office or agency. The Company hereby designates as a Place of Payment the office or agency of the Corporate Trust Office, and initially appoints the Trustee at its Corporate Trust Office and as its agent to receive all such presentations, surrenders, notices and demands.

Section 9.03 Money for Securities Payments to Be Held in Escrow.

The Company will, on or before the Issuance Date, deposit with the Escrow Agent in accordance with the Escrow Agreement (a copy of which is attached as hereto as Exhibit C), a sum sufficient to pay the principal of the Securities, such sum of money to be held in escrow for the benefit of the Persons entitled to such principal of such Security.

Notwithstanding the preceding paragraph, any money deposited with the Trustee or any Paying Agent in trust for the payment of the principal on any Security not converted in accordance with Article Ten hereof or not redeemed in accordance with Article Eleven hereof and remaining unclaimed for six months after the Stated Maturity Date shall be paid to the Company upon Company Request; and the Holder of such Security shall thereafter, as an unsecured general creditor, look only to the Company for payment thereof, and all liability of the Trustee or such Paying Agent with respect to such money held in trust, shall thereupon cease.

Section 9.04 Statement as to Compliance.

The Company will deliver to the Trustee, within 120 days after the end of each fiscal year ending after the date hereof so long as any Security is Outstanding hereunder, a brief certificate from the principal executive officer or principal financial officer of the Company as to his or her knowledge of the Company's compliance with all conditions and covenants under this Indenture. For purposes of this Section 9.04, such compliance shall be determined without regard to any period of grace or requirement of notice under this Indenture.

Section 9.05 Corporate Existence.

Subject to Article Seven, the Company shall do or cause to be done all things necessary to preserve and keep in full force and effect the corporate existence and related rights and franchises (charter and statutory) of the Company.

Section 9.06 Reports to Holders.

Within 45 days following the end of each fiscal quarter in which the Securities are outstanding, the Company shall furnish to Holders a statement setting forth the principal amount of the Outstanding Securities at the close of such fiscal quarter.

Section 9.07 Liens.

The Company shall not, and shall cause each Subsidiary not to create, purport to create or suffer to exist any Lien upon the Property.

Section 9.08 Escrow Agreement.

(1) Concurrent with the initial issuance of the Securities, the Company and the Trustee shall enter into the Escrow Agreement and the Company shall deposit an amount equal to the principal amount of the Securities with the Escrow Agent (such amounts deposited with the Escrow Agent less amounts attributable to Securities converted in accordance with Article Ten hereof or redeemed in accordance with Article Eleven hereof, the "*Property*"). In accordance with the terms and conditions of the Escrow Agreement, the Escrow Agent shall use the Property to pay the principal amount of the Securities on or prior to the Stated Maturity Date in accordance with the terms thereof.

(2) If any Security is converted pursuant to Article Ten, the portion of the Property corresponding to the principal amount of such Security shall be returned to the Company in accordance with the terms of the Escrow Agreement.

(3) The Trustee and each of the Holders acknowledge that a release of the Property in accordance with the provisions of the Escrow Agreement and of this Indenture will not be deemed for any purpose to be an impairment of the Property in contradiction of the terms of this Indenture or the Trust Indenture Act.

Section 9.09 Treatment of Escrow Funds.

The Company shall not, and shall cause each Subsidiary not to treat the Escrow Funds as an asset on the books and records of the Company or any Subsidiary nor account for the Escrow Funds as an asset on the Balance Sheet of the Company or any Subsidiary.

ARTICLE X

CONVERSION

Section 10.01 Conversion of Securities.

(1) *Right to Convert.*

(a) Subject to the procedures for conversion set forth in this Article Ten, a Holder may convert its Securities prior to the close of business on the final Business Day of each calendar month (each such date, as such date may be delayed in accordance with Section 10.02(3), a "**Conversion Date**") into the number of shares of Common Stock equal to the principal amount of such Security being converted multiplied by the Conversion Rate in effect at such time, in a minimum amount of $50,000 per conversion (or such Holder's entire principal amount of Securities held, if less).

(b) If the Company is a party to an Alternate Reorganization Event, a Holder may surrender Securities for conversion at any time, after the Company gives the notice referred to in the last sentence of this Section 10.01(1)(b), from and after the 15th Trading Day prior to the anticipated effective date of such transaction or event until the Business Day that is immediately prior to the effective date of such transaction. The Company shall notify, in the manner provided for in Sections 1.05 and 1.06, as applicable, each of the Holders and the Trustee of the Alternate Reorganization Event no later than 15 Trading Days prior to the anticipated effective date of the Alternate Reorganization Event.

(2) *Conversion Procedures*. The following procedures shall apply to conversions of Securities:

(a) In respect of a Definitive Security, a Holder must (A) complete and manually sign the conversion notice on the back of the Security, or a facsimile of such conversion notice; (B) deliver such conversion notice, which is irrevocable, and the Security to the Conversion Agent on or prior to the applicable Conversion Date; (C) if required, furnish appropriate endorsements and transfer documents as may be required by the Conversion Agent and, if required pursuant to Section 10.01(4) below, pay all transfer or similar taxes; and (D) if required pursuant to Section 3.11, pay funds equal to the amount of applicable withholding taxes; and

(b) In respect of a beneficial interest in a Global Security, a Beneficial Owner must comply with the Depositary's procedures for converting a beneficial interest in a Global Security and, if required pursuant to Section 3.11, pay funds equal to the amount of applicable withholding taxes, and if required, pay all taxes or duties required pursuant to Section 10.01(4) below, if any.

(3) *Issuance of Shares*. Within 5 Business Days of each Conversion Date, the Company shall issue the number of whole shares of Common Stock issuable upon conversion, with any fractional shares (after aggregating all Securities being converted by a Holder on such date) rounded down to the nearest whole share of Common Stock. No Holder shall have any rights with respect to Common Stock issuable upon conversion of Securities until the Conversion Date with respect to such shares of Common Stock.

(4) *Taxes on Conversion*. If a Holder converts Securities, the Company shall pay any documentary, stamp or similar issue or transfer tax due on the issue of shares of Common Stock upon the conversion. However, the Holder shall pay any such tax which is due because the Holder requests the shares to be issued in a name other than the Holder's name. The Conversion Agent may refuse to deliver the certificates representing the Common Stock being issued in a name other than the Holder's name until the Conversion Agent receives a sum sufficient to pay any tax which shall be due because the shares are to be issued in a name other than the Holder's name, but the Conversion Agent shall have no duty to determine if any such tax is due. Nothing herein shall preclude any withholding of tax required by law.

(5) *Certain Covenants of the Company.*

(a) The Company shall, prior to issuance of any Securities hereunder, and from time to time as may be necessary prior to the Stated Maturity Date, reserve out of its authorized but unissued Common Stock or shares of Common Stock held in treasury, sufficient number of shares of Common Stock, free of preemptive rights, to permit the conversion of the Securities.

(b) All shares of Common Stock delivered upon conversion of the Securities shall be newly issued shares or treasury shares, shall be duly and validly issued and fully paid and nonassessable and shall be free from preemptive rights and free of any lien or adverse claim.

(c) The Company shall endeavor promptly to comply with all federal and state securities laws regulating the issuance and delivery of shares of Common Stock upon the conversion of Securities, if any.

Section 10.02 Adjustments to Conversion Rate.

The Conversion Rate shall be adjusted from time to time (successively and for each event described) by the Company as follows:

(1) If the Company shall, at any time or from time to time while any of the Securities are outstanding, issue shares of Common Stock as a dividend or distribution on shares of Common Stock, or if the Company effects a share split or share combination in respect of the Common Stock, then the Conversion Rate shall be adjusted based on the following formula:

$$CR' = CR_0 \times \frac{OS'}{OS_0}$$

where

CR_0 = the Conversion Rate in effect immediately prior to the Close of Business on the Record Date for such dividend or distribution, or, if no Record Date, immediately prior to the effective date of such share split or share combination, as applicable;

CR' = the new Conversion Rate in effect immediately after the Close of Business on the Record Date for such dividend or distribution, or, if no Record Date, immediately prior to the effective date of such share split or share combination, as applicable;

OS_0 = the number of shares of Common Stock outstanding immediately prior to the Close of Business on the Record Date for such dividend or distribution, or, if no Record Date, immediately prior to the effective date of such share split or share combination, as applicable; and

OS' = the number of shares of Common Stock outstanding immediately after such dividend or distribution, or, if no Record Date, immediately after the Close of Business on the effective date of such share split or share combination, as applicable.

Such adjustment shall become effective immediately after the Close of Business on the Record Date fixed for such dividend or distribution, or, if no Record Date, immediately prior to the opening of business on the effective date for such share split or share combination. If any dividend or distribution of the type described in this Section 10.02(1) is declared but not so paid or made, or the outstanding shares of Common Stock are not split or combined, as the case may be, the Conversion Rate shall be immediately readjusted, effective as of the date the Board of Directors determines not to pay such dividend or distribution, or split or combine the outstanding shares of Common Stock, as the case may be, to the Conversion Rate that would then be in effect if such dividend, distribution, share split or share combination had not been declared.

The Company shall not pay any dividend or make any distribution on shares of Common Stock held in treasury by the Company.

(2) Except as otherwise provided for by Section 10.02(3) below, if the Company shall, at any time or from time to time while any of the Securities are outstanding, distribute to all or substantially all holders of its outstanding shares of Common Stock any options, rights or warrants entitling them for a period of not more than 45 calendar days from the Record Date of such distribution to subscribe for or purchase shares of Common Stock at a price per share less than the Closing Price of the Common Stock on the Trading Day immediately preceding the Record Date of such distribution, the Conversion Rate shall be adjusted based on the following formula:

$$\mathbf{CR' = CR_0 X \frac{OS_0 + X}{OS_0 + Y}}$$

where

CR_0 = the Conversion Rate in effect immediately prior to the Close of Business on the Record Date for such distribution;

CR' = the new Conversion Rate in effect immediately after the Close of Business on the Record Date for such distribution;

OS_0 = the number of shares of Common Stock outstanding immediately prior to the Close of Business on the Record Date for such distribution;

X = the total number of shares of Common Stock issuable pursuant to such options, rights or warrants; and

Y = the number of shares of Common Stock equal to the aggregate price payable to exercise such options, rights or warrants divided by the average Closing Price of the Common Stock over the 10 consecutive Trading Day period ending on the Record Date.

Such adjustment shall be successively made whenever any such options, rights or warrants are distributed and shall become effective immediately after the Close of Business on the record date for such distribution. To the extent that shares of Common Stock are not delivered pursuant to any such options, rights or warrants that are non-transferable upon the expiration or termination of such options, rights or warrants, the Conversion Rate shall be readjusted to the Conversion Rate that would then be in effect had the adjustments made upon the distribution of such options, rights or warrants been made on the basis of the delivery of only the number of shares of Common Stock actually delivered.

In determining the aggregate price payable to exercise such options, rights or warrants, there shall be taken into account any amount payable on exercise thereof, with the value of such consideration, if other than cash, to be determined in good faith by the Board of Directors.

(3) If the Company, at any time or from time to time while any of the Securities are outstanding, shall, by dividend or otherwise, distribute to all or substantially all holders of its Common Stock shares of any class of Capital Stock of the Company (other than Common Stock as covered by Section 10.02(1)), evidences of its indebtedness, assets, property or rights or warrants to acquire Capital Stock or other securities, but excluding (i) dividends or distributions as to which an adjustment under Section 10.02(1), Section 10.02(2) or Section 10.02(4) hereof shall apply and (ii) Spin-Offs to which the provision set forth below in this Section 10.02(3) shall apply (any of such shares of Capital Stock, indebtedness, assets, property or rights or warrants to acquire Common Stock or other securities, hereinafter in this Section 10.02(3) called the "*Distributed Property*"), then, in each such case the Conversion Rate shall be adjusted based on the following formula:

$$\mathbf{CR' = CR_0 X \frac{SP_0}{SP_0 - FMV}}$$

where

CR_0 = the Conversion Rate in effect immediately prior to the Close of Business on the Record Date for such distribution;

CR' = the new Conversion Rate in effect immediately after the Close of Business on the Record Date for such distribution;

SP_0 = the average Closing Price of the Common Stock over the 10 consecutive Trading Day period ending on the Record Date for such distribution; and

FMV = the fair market value (as determined in good faith by the Board of Directors) of the portion of Distributed Property with respect to each outstanding share of Common Stock on the Record Date for such distribution.

Such adjustment shall become effective immediately after the Close of Business on the Record Date for such distribution; *provided* that if "FMV" as set forth above is equal to or greater than SP_0 as set forth above, then in lieu of the foregoing adjustment, the Company shall distribute to each holder of Securities on the date such Distributed Property is distributed to holders of Common Stock, but without requiring such holder to convert its Securities, the amount of Distributed Property such holder would have received had such holder owned a number of shares of Common Stock equal to the product of (a) the Conversion Rate on the Record Date fixed for determination for shareholders entitled to receive such distribution and (b) the principal amount of such capitalized Security. If the Board of Directors determines "FMV" for purposes of this Section 10.02(3) by reference to the actual or when issued trading market for any securities, it shall in doing so consider the prices in such market over the same period used in computing the average Closing Price of the Common Stock for purposes of calculating SP_0 in the formula in this Section 10.02(3).

With respect to an adjustment pursuant to this Section 10.02(3) where there has been a payment of a dividend or other distribution on the Common Stock consisting of shares of Capital Stock of any class or series, or similar equity interest, of or relating to a Subsidiary or other business unit of the Company (a "**Spin-Off**"), the Conversion Rate in effect immediately before the Close of Business on the 10th Trading Day immediately following, and including, the effective date of the Spin-Off shall be increased based on the following formula:

$$\mathbf{CR' = CR_0 X \frac{FMV + MP_0}{MP_0}}$$

where

CR_0 = the Conversion Rate in effect immediately prior to the Close of Business on the 10th Trading Day immediately following the effective date of the Spin-Off;

CR' = the new Conversion Rate in effect immediately after the Close of Business on the 10th Trading Day immediately following the effective date of the Spin-Off;

FMV = the average of the Closing Prices of the Capital Stock or similar equity interest distributed to holders of Common Stock applicable to one share of Common Stock over the 10 consecutive Trading Day period immediately following, and including, the effective date of the Spin-Off; and

MP_0 = the average Closing Price of the Common Stock over the 10 consecutive Trading Day period calculated immediately following, and including, the effective date of the Spin-Off.

Such adjustment shall occur on the 10th Trading Day from, and including, the effective date of the Spin-Off. In the event that a Conversion Date occurs within the 10 Trading Days from, and including, the effective date of the Spin-Off, such Conversion Date shall be delayed until the conclusion of such 10 Trading Day period without further action by the Company.

For purposes of this Section 10.02(3), Section 10.02(1) and Section 10.02(2) hereof, any dividend or distribution to which this Section 10.02(3) is applicable that also includes shares of Common Stock to which Section 10.02(1) hereof applies, or rights or warrants to subscribe for or purchase shares of Common Stock to which Section 10.02(1) or 10.02(2) hereof applies (or both), shall be deemed instead to be (i) a dividend or distribution of the evidences of indebtedness, assets or shares of Capital Stock other than such shares of Common Stock or rights or warrants to which Section 10.02(1) or 10.02(2) hereof applies (and any Conversion Rate adjustment required by this Section 10.02(3) with respect to such dividend or distribution shall then be made) immediately followed by (ii) a dividend or distribution of such shares of Common Stock or such options, rights or warrants to which Section 10.02(1) or 10.02(2) hereof applies (and any further Conversion Rate adjustment required by Section 10.02(1) and 10.02(2) hereof with respect to such dividend or distribution shall then be made), except (A) the Close of Business on the Record Date of such dividend or distribution shall be substituted for "the Close of Business on the Record Date," "the Close of Business on the Record Date or the effective date," "after the Close of Business on the Record Date for such dividend or distribution or the effective date of such share split or share combination" and "the Close of Business on the Record Date for such distribution" within the meaning of Section 10.02(1) and Section 10.02(2) hereof and (B) any shares of Common Stock included in such dividend or distribution shall not be deemed "outstanding immediately prior to the Close of Business on the Record Date or the Close of Business on the effective date" within the meaning of Section 10.02(1) hereof.

(4) In case the Company shall pay dividends or make distributions consisting exclusively of cash to all or substantially all holders of its Common Stock, the Conversion Rate shall be adjusted based on the following formula:

$$\mathbf{CR' = CR_0 X \frac{SP_0}{SP_0 - C}}$$

Where

CR_0 = the Conversion Rate in effect immediately prior to the Record Date for such distribution;

CR' = the new Conversion Rate in effect immediately after the Record Date for such distribution;

SP_0 = the Closing Price of Common Stock on the Trading Day immediately preceding the Record Date for such distribution; and

C = the amount in cash per share distributed to holders of Common Stock in such distribution.

Such adjustment shall become effective immediately prior to the opening of business on the Record Date for such dividend or distribution; *provided* that if the portion of the cash so distributed applicable to one share of the Common Stock is equal to or greater than SP_0 as set forth above, in lieu of the foregoing adjustment, adequate provision shall be made so that each Holder of Securities shall receive on the date on which such cash dividend is distributed to holders of Common Stock, the amount of cash such holder would have received had such holder owned a number of shares equal to the product of (a) Conversion Rate on the Record Date for such distribution and (b) the principal of such Security, without being required to convert the Securities. If such dividend or distribution is not so paid or made, the Conversion Rate shall again be adjusted to be the Conversion Rate that would then be in effect if such dividend or distribution had not been declared.

For the avoidance of doubt, for purposes of this subsection (4), in the event of any reclassification of the Common Stock, as a result of which the Securities become convertible into more than one class of Common Stock, if an adjustment to the Conversion Rate is required pursuant to this subsection (4), references in this

Section 10.02 to one share of Common Stock or Closing Price of one share of Common Stock shall be deemed to refer to a unit or to the price of a unit consisting of the number of shares of each class of Common Stock into which the Securities are then convertible equal to the numbers of shares of such class issued in respect of one share of Common Stock in such reclassification. The above provisions of this paragraph shall similarly apply to successive reclassifications.

(5) If the Company makes a payment of cash or other consideration in respect of a tender offer or exchange offer for all or any portion of the Common Stock, where such cash and the value of any such other consideration included in the payment per share of Common Stock validly tendered or exchanged exceeds the average of the Closing Prices of the Common Stock over the 10 consecutive Trading Day period commencing on, and including, the Trading Day next succeeding the last date on which tenders or exchanges may be made pursuant to such tender or exchange offer (the "**Expiration Date**") on which tenders or exchanges may be made pursuant to such tender or exchange offer (as it may be amended), the Conversion Rate shall be increased based on the following formula:

$$\mathbf{CR' = CR_0 X \frac{AC + (OS' \times SP')}{OS_0 + SP'}}$$

Where

CR_0 = the Conversion Rate in effect immediately prior to the Close of Business on the Expiration Date;

CR' = the new Conversion Rate in effect immediately after the Close of Business on the Expiration Date;

AC = the aggregate value of all cash and any other consideration (as determined in good faith by the Board of Directors) paid for shares purchased in such tender or exchange offer;

OS_0 = the number of shares of Common Stock outstanding immediately prior to the date such tender or exchange offer expires;

OS' = the number of shares of Common Stock outstanding immediately after the date such tender or exchange offer expires (after giving effect to such tender offer or exchange offer); and

SP' = the average Closing Prices of Common Stock over the 10 consecutive Trading Day period commencing on, and including, the Trading Day next succeeding the Expiration Date.

Such adjustment will be determined at the Close of Business on the tenth Trading Day immediately following, but excluding, the Expiration Date but will be given effect at the Open of Business on the Trading Day next succeeding the Expiration Date. If the Trading Day next succeeding the Expiration Date is less than 10 Trading Days prior to, and including, the end of the Conversion Period in respect of any conversion, references within this clause (5) to 10 Trading Days shall be deemed to be replaced, solely in respect of that conversion, with such lesser number of Trading Days as have elapsed from, and including, the Trading Day next succeeding the Expiration Date to, and including, the last Trading Day of such Conversion Period. In respect of any conversion during the 10 Trading Days commencing on the Trading Day next succeeding the Offer Expiration Date, references within this clause (5) to 10 Trading Days shall be deemed to be replaced, solely in respect of that conversion, with such lesser number of Trading Days as have elapsed from, and including, the Trading Day next succeeding the Expiration Date to, but excluding, the relevant Conversion Date. No adjustment pursuant to the above formula will result in a decrease of the Conversion Rate.

If the Company or Subsidiary is obligated to purchase shares of Common Stock pursuant to any such tender or exchange offer, but the Company or Subsidiary is permanently prevented by applicable law from effecting any

such purchases or all or any portion of such purchases are rescinded, then the Conversion Rate shall again be adjusted to be the Conversion Rate that would then be in effect if such tender or exchange offer had not been made or had only been made in respect of the purchases that were effected.

(6) If this Section 10.02 applies to any event or occurrence that is not also a Reorganization Event, Section 10.03 shall not apply in respect of such event or occurrence.

Section 10.03 Effect of Reclassification, Consolidation, Merger or Sale.

(1) If any of the following events occur (any such event or transaction satisfying both subclauses (a) and (b) of this Section 10.03(1), a "**Reorganization Event**"): (a) (i) any recapitalization, reclassification or change of Common Stock (other than a subdivision or combination) as a result of which the Common Stock would be converted into, or exchanged for, stock, other securities, or other property or assets (or any combination thereof), (ii) any statutory share exchange, consolidation or merger involving the Company pursuant to which the Common Stock will be converted into cash, securities or other property (or any combination thereof), or (iii) any sale, lease or other transfer in one transaction or a series of transactions of all or substantially all of the consolidated assets of the Company and its Subsidiaries, taken as a whole, to any Person as a result of which the Common Stock will be converted into cash, securities or other property (or any combination thereof) and (b) the equity securities of the surviving entity are registered with the U.S. Securities and Exchange Commission under the Exchange Act, then the Company or the successor or purchasing Person, as the case may be, shall execute with the Trustee a supplemental indenture (which shall comply with the Trust Indenture Act as in force at the date of execution of such supplemental indenture) providing that at the effective time of the Reorganization Event each Security shall be convertible into the kind and amount of shares of stock, other securities or other property or assets (including cash or any combination thereof) that a holder of a number of shares of Common Stock equal to the Conversion Rate immediately prior to such Reorganization Event would have owned or been entitled to receive upon such Reorganization Event (the "**Reference Property**"). For purposes of the foregoing, the type and amount of consideration that a holder of Common Stock would have been entitled to receive in the case of any such Reorganization Event that causes the Common Stock to be converted into the right to receive more than a single type of consideration (determined based in part upon any form of stockholder election) shall be deemed to be the weighted average of the types and amounts of consideration received by the holders of Common Stock that affirmatively make such an election. Such supplemental indenture shall provide for provisions and adjustments which shall be as nearly equivalent as may be practicable to the provisions and adjustments provided for in this Article Ten, as determined in good faith by the Company (which determination shall be conclusive and binding), to make such provisions apply to such other Person if different from the original issuer of the Securities. If, in the case of any Reorganization Event, the cash, securities or other property receivable thereupon by a holder of Common Stock includes cash, securities or other property of a Person other than the successor or purchasing Person, as the case may be, in such Reorganization Event, then such supplemental indenture shall also be executed by such successor or purchasing Person, as the case may be, and shall contain such additional provisions to protect the interests of the Holders of the Securities as the Board of Directors shall reasonably consider necessary by reason of the foregoing.

(2) Following the effective time of any such Reorganization Event, settlement of Securities converted shall be in cash and units of Reference Property determined in accordance with Section 10.03(1) above based on the Conversion Rate and Current Market Price of such Reference Property. For the purposes of determining such Conversion Rate and Current Market Price, if the Reference Property includes securities for which the price cannot be determined in a manner contemplated by the definition of Current Market Price or other property, then the value of such property shall be the fair market value of such property as determined by the Board of Directors in good faith, and if the Reference Property includes cash, then the value of such cash shall be the amount thereof.

(3) The Company shall cause notice of the execution of any supplemental indenture required by this Section 10.03 to be mailed to each Holder of Securities, at its address appearing on the Securities Register provided for in Section 3.05 of this Indenture, within 20 calendar days after execution thereof. Failure to deliver such notice shall not affect the legality or validity of such supplemental indenture.

(4) The above provisions of this Section 10.03 shall similarly apply to successive Reorganization Events.

(5) If this Section 10.03 applies to any event or occurrence, Section 10.02 shall not apply in respect of such event or occurrence.

(6) None of the foregoing provisions shall affect the right of a Holder of Securities to convert the Securities into cash and shares of Common Stock, if applicable, as set forth in Section 10.01 prior to the effective time of such Reorganization Event.

(7) Notwithstanding the foregoing, if any of the following events occur (any such event or transaction satisfying both subclauses (a) and (b) of this Section 10.03(7), an "**Alternate Reorganization Event**"): (a) (i) any recapitalization, reclassification or change of Common Stock (other than a subdivision or combination) as a result of which the Common Stock would be converted into, or exchanged for, stock, other securities, or other property or assets (or any combination thereof), (ii) any statutory share exchange, consolidation or merger involving the Company pursuant to which the Common Stock will be converted into cash, securities or other property (or any combination thereof), or (iii) any sale, lease or other transfer in one transaction or a series of transactions of all or substantially all of the consolidated assets of the Company and its Subsidiaries, taken as a whole, to any Person as a result of which the Common Stock will be converted into cash, securities or other property (or any combination thereof) and (b) the equity securities of the surviving entity are not registered with the U.S. Securities and Exchange Commission under the Exchange Act, then the Company or the successor or purchasing Person, as the case may be, shall execute with the Trustee a supplemental indenture (which shall comply with the Trust Indenture Act as in force at the date of execution of such supplemental indenture) providing that at the effective time of such event the conversion features in Article Ten shall be eliminated and the principal of any Outstanding Securities shall be due on the Stated Maturity Date.

Section 10.04 Responsibility of Trustee.

The Trustee and any other Conversion Agent shall not at any time be under any duty or responsibility to the Company or any Holder of Securities to determine the Conversion Rate, or whether any facts exist which may require any adjustment of the Conversion Rate, or with respect to the nature or extent or calculation of any such adjustment when made, or with respect to the method employed in making the same. The Trustee and any other Conversion Agent shall not be accountable with respect to the validity or value (or the kind or amount) of any shares of Common Stock, or of any securities or property, which may at any time be issued or delivered upon the conversion of any Security; and the Trustee and any other Conversion Agent make no representations with respect thereto. Neither the Trustee nor any Conversion Agent shall be responsible for any failure of the Company to issue, transfer or deliver any cash or shares of Common Stock or stock certificates or other securities or property upon the surrender of any Security for the purpose of conversion or to comply with any of the duties, responsibilities or covenants of the Company contained in this Article Ten. Without limiting the generality of the foregoing, neither the Trustee nor any Conversion Agent shall be under any responsibility to determine whether a supplemental indenture needs to be entered into pursuant to Section 8.03 or the correctness of any provisions contained in any supplemental indenture relating either to the kind or amount of shares of stock or securities or property (including cash) receivable by Holders upon the conversion of their Securities after any Reorganization Event or to any adjustment to be made with respect thereto, but, subject to the provisions of Section 5.01, may accept as conclusive evidence of the correctness of any such provisions, and shall be fully protected in relying upon, the Officers' Certificate (which the Company shall be obligated to file with the Trustee prior to the execution of any such supplemental indenture) with respect thereto.

Section 10.05 Notice to Holders Prior to Certain Actions.

In case:

(1) the Company shall declare a dividend (or any other distribution) on the Common Stock that would require an adjustment in the Conversion Rate pursuant to Section 10.02;

(2) the Company shall authorize the granting to the holders of all or substantially all of the Common Stock of rights or warrants to subscribe for or purchase any shares of Common Stock; or

(3) of any reclassification or reorganization of the Common Stock of the Company (other than a subdivision or combination of its outstanding Common Stock, or a change in par value, or from par value to no par value, or from no par value to par value), or of any consolidation or merger or similar transaction to which the Company or any Significant Subsidiary is a party and for which approval of any stockholders of the Company is required, or of the sale or transfer of all or substantially all of the assets of the Company or any Significant Subsidiary; or

(4) of the voluntary or involuntary dissolution, liquidation or winding up of the Company,

then the Company shall cause to be filed with the Trustee and to be mailed to each Holder of Securities at his address appearing on the Securities Register provided for in Section 3.05 of this Indenture, as promptly as possible but in any event at least 20 days prior to the applicable date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution or granting of rights or warrants, or, if a record is not to be taken, the date as of which the holders of Common Stock of record to be entitled to such dividend, distribution or rights are to be determined, or (y) the date on which such reclassification, reorganization, consolidation, merger, sale, transfer, dissolution, liquidation or winding up is expected to become effective or occur, and the date as of which it is expected that holders of Common Stock of record shall be entitled to exchange their Common Stock for securities or other property deliverable upon such reclassification, reorganization, consolidation, merger, sale, transfer, dissolution, liquidation or winding up. Failure to give such notice, or any defect therein, shall not affect the legality or validity of such dividend, distribution, reclassification, reorganization, consolidation, merger, sale, transfer, dissolution, liquidation or winding up.

Section 10.06 Stockholder Rights Plan.

To the extent that the Company has a rights plan in effect upon conversion of the Securities into Common Stock, Holders that convert their Securities will receive, in addition to the Common Stock, the rights under the rights plan, unless prior to any conversion, the rights have separated from the Common Stock, in which case, and only in such case, the Conversion Rate will be adjusted at the time of separation as if the Company distributed to all holders of Common Stock shares of Capital Stock, evidences of indebtedness or assets as described in Section 10.02(3) above, subject to readjustment in the event of the expiration, termination or redemption of such rights. In lieu of any such adjustment, the Company may amend such applicable stockholder rights agreement to provide that upon conversion of the Securities the Holders will receive, in addition to the Common Stock issuable upon such conversion, the rights which would have attached to such Common Stock if the rights had not become separated from the Common Stock under such applicable stockholder rights agreement.

ARTICLE XI

REDEMPTION

Section 11.01 Redemptions.

(1) Notwithstanding any provision to the contrary contained herein, each Holder shall be entitled to redeem for cash, in full or in part, in increments of $50,000, or the full amount of such Security, if less, the principal amount of such Holder’s Security by delivering written notice to the Redemption Agent in accordance with the terms of this Article 11.

(2) Redemption Procedures. The following procedures shall apply to redemption of Securities:

(a) In respect of a Definitive Security, a Holder must (A) complete and manually sign the redemption notice on the back of the Security, or a facsimile of such redemption notice; (B) deliver such redemption notice,

which is irrevocable, and the Security to the Redemption Agent; (C) if required, furnish appropriate endorsements and transfer documents as may be required by the Redemption Agent and, if required pursuant to this Section 11.01, pay all transfer or similar taxes; and (D) if required pursuant to Section 3.11, pay funds equal to the amount of applicable withholding taxes; and

(b) In respect of a beneficial interest in a Global Security, a Beneficial Owner must comply with the Depositary's procedures for redeeming a beneficial interest in a Global Security and, if required pursuant to Section 3.11, pay funds equal to the amount of applicable withholding taxes, and if required, pay all taxes or duties required pursuant to Section 11.01(4) below, if any.

(3) Cash Payment. Within 5 Business Days of each Redemption Date, the Redemption Agent shall pay to such redeeming Holder, in cash, the principal amount of the Security being delivered by such Holder for redemption, in full satisfaction of its obligations to such Holder hereunder and under such redeemed Security. In the case of any redemption in part, the Company shall execute and the Trustee shall, subject to Section 3.06 hereof, execute, authenticate and deliver, in lieu of such delivered Security, a new Security equal in an aggregate principal amount to the unredeemed portion of the Security so surrendered.

IN WITNESS WHEREOF, the parties hereto have caused this Indenture to be duly executed, as of the day and year first above written.

TARGACEPT, INC.

By: _____
Name:
Title:

AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC, Trustee

By: _____
Name:
Title:

EXHIBIT A

FORM OF GLOBAL SECURITY

TARGACEPT, INC.

{FORM OF FACE OF GLOBAL SECURITY}

UNLESS THIS CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY, A NEW YORK CORPORATION, TO TARGACEPT, INC. (THE "COMPANY") OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY CERTIFICATE ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY (AND ANY PAYMENT HEREON IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL SINCE THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.

TRANSFERS OF THIS GLOBAL SECURITY SHALL BE LIMITED TO TRANSFERS TO NOMINEES OF THE DEPOSITORY TRUST COMPANY OR TO A SUCCESSOR THEREOF OR SUCH SUCCESSOR'S NOMINEE AND TRANSFERS OF PORTIONS OF THIS GLOBAL SECURITY SHALL BE LIMITED TO TRANSFERS MADE IN ACCORDANCE WITH THE RESTRICTIONS SET FORTH IN THE INDENTURE REFERRED TO ON THE REVERSE HEREOF.

TARGACEPT, INC.

Redeemable Convertible Notes due 2018

No.: CUSIP:

Issue Date: Principal Amount:

TARGACEPT, INC., a Delaware corporation, promises to pay to Cede & Co. or its registered assigns, the principal amount as set forth on Schedule I hereto, on , 2018 [the 30 month anniversary of the date of the Indenture], subject to the further provisions of this Security set forth on the reverse hereof, which further provisions shall for all purposes have the same effect as if set forth at this place. Beneficial interests in this Security are convertible as specified on the other side of this Security.

Unless the certificate of authentication hereon has been duly executed by the Trustee referred to on the reverse hereof by manual signature, this Security shall not be entitled to any benefit under the Indenture or be valid or obligatory for any purposes.

IN WITNESS WHEREOF, Targacept, Inc. has caused this Security to be fully executed.

TARGACEPT, INC.

By: _____
Name:
Title:

Dated:

By: _____
Name:
Title:

TRUSTEE'S CERTIFICATE OF AUTHENTICATION

This is one of the Securities referred to in the within-mentioned Indenture.

AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC, Trustee

By: _____
Authorized Officer

{FORM OF REVERSE SIDE OF GLOBAL SECURITY}

TARGACEPT, INC.

Redeemable Convertible Note due 2018

Section 1. *Indenture.*

This Security is one of a duly authorized issue of debt securities of Targacept, Inc., a Delaware corporation (such corporation, and its successors and assigns under the Indenture (as defined below), being herein called the "Company") designated as its "Redeemable Convertible Notes due 2018" (herein called the "Securities"), issued under an indenture dated as of , 2015 (as amended or supplemented from time to time, the "Indenture"), by and between the Company and American Stock Transfer & Trust Company, LLC, as trustee (the "Trustee," which term includes any successor Trustee under the Indenture). The terms of the Securities include those stated in the Indenture and those made part of the Indenture by reference to the Trust Indenture Act of 1939, as amended (the "Trust Indenture Act"), and the Indenture sets forth the respective rights, limitations of rights, duties and immunities thereunder of the Company, the Trustee and each Holder of Securities and of the terms upon which the Securities are, and are to be, authenticated and delivered. The summary of the terms of this Security contained herein does not purport to be complete and is qualified by reference to the Indenture, and Holders are referred to the Indenture and the Trust Indenture Act for a statement of the Securities' terms. Capitalized terms used in this Security that are not defined herein shall have the same meanings assigned to them in the Indenture.

The Securities are general unsecured obligations of the Company limited to up to $37 million aggregate principal amount. The Indenture does not limit other indebtedness of the Company, secured or unsecured.

Section 2. *Principal; No Interest.*

The Company promises to pay on , 2018 [the 30 month anniversary of the date of the Indenture] (the "**Stated Maturity Date**") the principal amount set forth on Schedule I of this Security to the registered Holder of this Security in the Security Register. This Security will not bear interest.

Section 3. *Method of Payment.*

The Company, through the Paying Agent, shall pay the principal amount (less any amount earlier converted or redeemed) on the Stated Maturity Date to the Person who is the registered Holder of this Security in the Security Register. The Company shall pay all payments of principal in money of the United States that at the time of payment is legal tender for payment of public and private debts.

Section 4. *Escrow Agent, Conversion Agent, Redemption Agent, Security Registrar, and Securities Custodian.*

Initially, the Trustee shall act as Paying Agent, Conversion Agent, Redemption Agent, Security Registrar and Securities Custodian. The Company may appoint and change any Paying Agent, Conversion Agent, Redemption Agent, Security Registrar or Securities Custodian without notice, other than notice to the Trustee.

Section 5. *Conversion.*

Subject to the provisions of Article Ten of the Indenture, a Holder of a Security may convert such Security prior to the close of business on the final Business Day of each calendar month (each such date, as such date may be delayed in accordance with Section 10.02(3) of the Indenture, a "Conversion Date") into the number of shares of Common Stock equal to the principal amount of such Security multiplied by the Conversion Rate in effect at such time (in a minimum amount of $50,000 per conversion, or such Holder's entire principal amount of Securities held, if less), rounded down to the nearest whole share of Common Stock. No fractional shares shall be issued upon conversion.

To convert a beneficial interest in this Security, a Beneficial Owner must complete and deliver to the Depositary appropriate instructions pursuant to the Depositary's procedures for converting a beneficial interest in a Global Security and, if required pursuant to Section 3.11 of the Indenture, pay funds equal to the amount of applicable withholding taxes, and if required, pay all taxes or duties required pursuant to Section 10.01(4) of the Indenture, if any.

Section 6. *Redemption.*

Subject to the provisions of Article Eleven of the Indenture, a Holder of a Security may redeem all or part of a Security prior to the close of business on a Business Day (at least 5 Business Days prior to the Stated Redemption Date) (each such date, a "**Redemption Date**") for cash payment equal to the principal amount of such Security being delivered for redemption at such time.

To redeem a beneficial interest in this Security, a Beneficial Owner must complete and deliver to the Depositary appropriate instructions pursuant to the Depositary's procedures for converting a beneficial interest in a Global Security and, if required pursuant to Section 3.11 of the Indenture, pay funds equal to the amount of applicable withholding taxes, and if required, pay all taxes or duties required pursuant to Section 11.01 of the Indenture, if any. In the case of any redemption in part, the Company shall execute and the Trustee shall, subject to Section 3.06 of the Indenture, execute, authenticate and deliver, in lieu of such delivered Security, a new Security equal in an aggregate principal amount to the unredeemed portion of the Security so surrendered.

Section 7. *Global Security.*

So long as this Security is registered in the name of the Depositary, members of, or participants in, the Depositary ("**Agent Members**") shall have no rights under the Indenture with respect to this Security held on their behalf by the Depositary, or the Trustee as its custodian, or under this Security, and the Depositary may be treated by the Company, the Trustee or any agent of the Company or Trustee as the absolute owner of this Security for all purposes whatsoever. Notwithstanding the foregoing, nothing contained in the Indenture or this Security shall prevent the Company, the Trustee or any agent of the Company or Trustee from giving effect to any written certification, proxy or other authorization furnished by the Depositary or impair, as between the Depositary and the Agent Members, the operation of customary practices governing the exercise of the rights of a Holder of any Security.

The Holder of this Security may grant proxies and otherwise authorize any Person, including Agent Members and Persons that may hold interests through Agent Members, to take any action which a Holder is entitled to take under the Indenture or the Securities.

Whenever, as a result of conversion of beneficial interests in this Security or the exchange of a portion of this Security for Definitive Securities, this Security is converted or exchanged in part, this Security shall be surrendered by the Holder hereof to the Trustee who shall cause an adjustment to be made on Schedule I hereof so that the principal amount of this Security shall be equal to the portion not converted or exchanged and shall thereafter return this Security to such Holder.

Section 8. *Transfer and Exchange.*

The Holder of this Security shall, by acceptance of this Security, agree that the transfers of beneficial interests in this Security may be effected only though a book-entry system maintained by such Holder (or its agent), and that ownership of a beneficial interest shall be required to be reflected in book-entry form.

Transfers of this Security shall be limited to transfers, in whole or in part, to the Depositary (or a nominee thereof). Interests in beneficial owners in this Global Security may be transferred in accordance with the rules and procedures of the Depositary.

This Security shall be exchanged by the Company for one or more Definitive Securities if (i) the Depositary notifies the Company in writing that it is unwilling or unable to continue to act as Depositary for this Security and a successor Depositary for this Security is not appointed by the Company within 90 days of such notice, (ii) the Depositary ceases to be registered as a "clearing agency" under the Exchange Act and a successor depositary for this Security is not appointed by the Company within 90 days of such cessation, (iii) the Company, at its option, notifies the Trustee in writing that it elects to cause the issuance of the Definitive Securities under this Indenture in exchange for all or any part of the Securities represented by this Security, subject to the procedures of the Depositary, or (iv) an Event of Default has occurred and is continuing and the Security Registrar has received a request from the Depositary for the issuance of Definitive Securities in exchange for this Security. Whenever this Security is exchanged for one or more Definitive Securities, the Company shall execute, and the Trustee, upon receipt of an Officers' Certificate and Company Order for the authentication and delivery of Securities, shall authenticate and deliver in exchange for this Security, Definitive Securities in an aggregate principal amount equal to the aggregate principal amount of this Security or the portion of this Security exchanged for Definitive Securities. Such Definitive Securities shall be registered in such names as the Depositary shall identify in writing as the beneficial owners of the Securities represented by this Security. Interests in this Global Security may not be exchanged for Definitive Securities other than as provided in this paragraph. Whenever this Security is exchanged in whole for one or more Definitive Securities, it shall be surrendered to the Trustee for cancellation.

Section 9. *Denominations.*

The Securities are in fully registered form, without coupons, in denominations of $1.00 of principal amount and any multiple thereof.

Section 10. *Unclaimed Money or Securities.*

Any money deposited with the Trustee or any Paying Agent for the payment of principal not converted in accordance with Article Ten of the Indenture and remains unclaimed for six months after the Stated Maturity Date shall be paid to the Company upon Company Request, subject to any applicable unclaimed property law. After any such payments, Holders entitled to such money must look only to the Company for payment unless an applicable abandoned property law designates another person.

Section 11. *Amendment; Waiver.*

Subject to certain exceptions set forth in the Indenture, (i) the Indenture or the Securities may be amended with the written consent of the Holders of at least a majority in aggregate principal amount of the Securities at the time outstanding and (ii) certain Defaults may be waived with the written consent of the Holders of a majority in aggregate principal amount of the Securities at the time outstanding. Subject to certain exceptions set forth in the Indenture, without the consent of any Holder, the Company and the Trustee may amend the Indenture or the Securities (i) to evidence the succession of another Person to the Company and the assumption by any such successor of the covenants of the Company under the Indenture and contained in the Securities, (ii) to add additional covenants or to surrender rights and powers conferred on the Company, (iii) to add any additional evidences of default, (iv) to evidence and provide for the acceptance of appointment under the Indenture of a successor Trustee or (v) to cure any ambiguity in the Indenture, to correct or supplement any provision of the Indenture which may be inconsistent with any other provision therein, or to make other provisions with respect to matters or questions arising under the Indenture, provided that such actions shall not adversely affect the interests of the Holders in any material respect.

Section 12. *Defaults and Remedies.*

Except as set forth in the Indenture, if an Event of Default occurs and is continuing, the Trustee or the Holders of not less than 51% in principal amount of Securities then outstanding may declare all the Securities to

be due and payable in the manner, at the time and with the effect provided in the Indenture. Certain events of bankruptcy or insolvency are Events of Default and shall result in the Securities being immediately due and payable upon the occurrence of such Events of Default without any further act of the Trustee or any Holder.

Holders of Securities may not enforce the Indenture or the Securities except as provided in the Indenture. The Trustee is not obligated to enforce the Indenture or the Securities unless it has received indemnity or security reasonably satisfactory to it. The Indenture permits, subject to certain limitations therein provided, Holders of a majority in aggregate principal amount of the Securities then outstanding to direct the Trustee in its exercise of any trust or power. Subject to certain provisions set forth in the Indenture, Holders of a majority in an aggregate principal amount of the Securities at the time outstanding, by written notice to the Company and the Trustee, may rescind any declaration of acceleration due to an Event of Default, and the applicable Event of Default shall be deemed to have been cured for every purpose of the Indenture.

Section 13. *Individual Rights of Trustee and Other Agents.*

Subject to certain limitations imposed by the Trust Indenture Act, the Trustee or any Paying Agent, Conversion Agent, Redemption Agent, Security Registrar, Securities Custodian or Authenticating Agent, in its individual or other capacity, may become the owner or pledgee of Securities and may otherwise deal with the Company or its Affiliates with the same rights it would have if it were not Trustee, Escrow Agent, Conversion Agent, Redemption Agent, Security Registrar, Securities Custodian or Authenticating Agent.

Section 14. *No Recourse Against Others.*

A director, officer, employee or shareholder, as such, of the Company shall not have any liability for any obligations of the Company under the Securities or the Indenture or for any claim based on, in respect of, or by reason of, such obligations or their creation. By accepting a Security, each Holder waives and releases all such liability. The waiver and release are part of the consideration for the issue of the Securities.

Section 15. *Authentication.*

This Security shall not be valid until an authorized signatory of the Trustee manually signs the Trustee’s Certificate of Authentication on the other side of this Security.

Section 16. *Governing Law.*

THE LAWS OF THE STATE OF NEW YORK SHALL GOVERN THE INDENTURE AND THIS SECURITY.

ASSIGNMENT FORM

To assign this Security, fill in the form below

I or we assign and transfer this Security to _____

(Insert assignee's soc. sec. or tax ID no.) _____

(Print or type assignee's name, address and zip code)
and irrevocably appoint as agent to transfer this Security on the books of the Company. The agent may substitute another to act for him.

Date: _____

Signature Guaranteed

_____
Participant in a Recognized Signature Guarantee Medallion Program

By: _____
Authorized Signatory

CONVERSION NOTICE

To convert this Security into Common Stock of the Company, check the box ☐

To convert only part of this Security, state the principal amount to be converted:

If you want the stock certificate made out in another person's name fill in the form below:

_____

(Insert the other person's soc. sec. tax ID no.) _____

(Print or type other person's name, address and zip code)

Your Signature: _____

(Sign exactly as your name appears on the other side of this Security)

REDEMPTION NOTICE

To redeem this Security into Common Stock of the Company, check the box ☐

To redeem only part of this Security, state the principal amount to be redeemed:

_____

(Insert the other person's soc. sec. tax ID no.)_____

(Print or type other person's name, address and zip code)

Your Signature:_____

(Sign exactly as your name appears on the other side of this Security)

SCHEDULE I

TARGACEPT, INC.

Redeemable Convertible Notes due 2018

Date	Principal Amount	Notation

EXHIBIT B

FORM OF DEFINITIVE SECURITY

TARGACEPT, INC.

Redeemable Convertible Notes due 2018

No.: CUSIP:

Issue Date: Principal Amount:

TARGACEPT, INC., a Delaware corporation, promises to pay to or its, his or her registered assigns, the principal amount of $, on , 2018 [the 30 month anniversary of the Indenture], subject to the further provisions of this Security set forth on the reverse hereof, which further provisions shall for all purposes have the same effect as if set forth at this place. This Security is convertible as specified on the other side of this Security.

Unless the certificate of authentication hereon has been duly executed by the Trustee referred to on the reverse hereof by manual signature, this Security shall not be entitled to any benefit under the Indenture or be valid or obligatory for any purposes.

IN WITNESS WHEREOF, Targacept, Inc. has caused this Security to be fully executed.

Dated:

TARGACEPT, INC.

By: _____
Name:
Title:

By: _____
Name:
Title:

TRUSTEE'S CERTIFICATE OF AUTHENTICATION

This is one of the Securities referred to in the within-mentioned Indenture.

AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC, Trustee

By: _____
Authorized Officer

{FORM OF REVERSE SIDE OF DEFINITIVE SECURITY}

TARGACEPT, INC.

Redeemable Convertible Note due 2018

Section 1. *Indenture.*

This Security is one of a duly authorized issue of debt securities of Targacept, Inc., a Delaware corporation (such corporation, and its successors and assigns under the Indenture (as defined below), being herein called the "**Company**") designated as its "Redeemable Convertible Notes due 2018" (herein called the "Securities"), issued under an indenture dated as of , 2015 (as amended or supplemented from time to time, the "**Indenture**"), by and between the Company and American Stock Transfer & Trust Company, LLC, as trustee (the "Trustee," which term includes any successor Trustee under the Indenture). The terms of the Securities include those stated in the Indenture and those made part of the Indenture by reference to the Trust Indenture Act of 1939, as amended (the "**Trust Indenture Act**"), and the Indenture sets forth the respective rights, limitations of rights, duties and immunities thereunder of the Company, the Trustee and each Holder of Securities and of the terms upon which the Securities are, and are to be, authenticated and delivered. The summary of the terms of this Security contained herein does not purport to be complete and is qualified by reference to the Indenture, and Holders are referred to the Indenture and the Trust Indenture Act for a statement of the Securities' terms. Capitalized terms used in this Security that are not defined herein shall have the same meanings assigned to them in the Indenture.

The Securities are general unsecured obligations of the Company limited to up to $37 million aggregate principal amount. The Indenture does not limit other indebtedness of the Company, secured or unsecured.

Section 2. *Principal; No Interest.*

The Company promises to pay on , 2018 [the 30 month anniversary of the date of the Indenture] (the "**Stated Maturity Date**") the principal amount of $ to the registered Holder of this Security in the Security Register. This Security will not bear interest.

Section 3. *Method of Payment.*

The Company, through the Paying Agent, shall pay the principal amount on the Stated Maturity Date to the Person who is the registered Holder of this Security in the Security Register. The Company shall pay all payments of principal in money of the United States that at the time of payment is legal tender for payment of public and private debts.

Section 4. *Escrow Agent, Conversion Agent, Redemption Agent, Security Registrar, and Securities Custodian.*

Initially, the Trustee shall act as Paying Agent, Conversion Agent, Redemption Agent, Security Registrar and Securities Custodian. The Company may appoint and change any Paying Agent, Conversion Agent, Redemption Agent, Security Registrar or Securities Custodian without notice, other than notice to the Trustee.

Section 5. *Conversion.*

Subject to the provisions of Article Ten of the Indenture, a Holder of a Security may convert such Security prior to the close of business on the final Business Day of each calendar month (each such date, as such date may be delayed in accordance with Section 10.02(3) of the Indenture, a "Conversion Date") into the number of shares of Common Stock equal to the principal amount of such Security multiplied by the Conversion Rate in effect at such time (in a minimum amount of $50,000 per conversion, or such Holder's entire principal amount of Securities held, if less), rounded down to the nearest whole share of Common Stock. No fractional shares shall be issued upon conversion.

To convert this Security, its Holder must (i) complete and manually sign the conversion notice on the back of the Security, or a facsimile of such conversion notice, (ii) deliver such conversion notice, which is irrevocable, and the Security to the Conversion Agent on or prior to the applicable Conversion Date, (iii) if required, furnish appropriate endorsements and transfer documents as may be required by the Conversion Agent and, if required pursuant to Section 10.01(4) of the Indenture, pay all transfer or similar taxes and (iv) if required pursuant to Section 3.11 of the Indenture, pay funds equal to the amount of applicable withholding taxes.

Section 6. *Redemption.*

Subject to the provisions of Article Eleven of the Indenture, a Holder of a Security may redeem such Security prior to the close of business on a Business Day (each such date, a "**Redemption Date**") for cash payment equal to the entire outstanding principal amount of such Outstanding Security at such time.

To redeem this Security, its Holder must (i) complete and manually sign the redemption notice on the back of the Security, or a facsimile of such redemption notice, (ii) deliver such redemption notice, which is irrevocable, and the Security to the Redemption Agent on the Redemption Date and (iii) if required pursuant to Section 3.11 of the Indenture, pay funds equal to the amount of applicable withholding taxes.

Section 7. *Persons Deemed Owners.*

The registered Holder of this Security in the Security Register may be treated as the owner of this Security for all purposes.

Section 8. *Transfer and Exchange.*

A Holder may transfer and exchange Securities in accordance with the Indenture. The Security Registrar may require a Holder, among other things, to furnish appropriate endorsements and transfer documents and to pay any taxes and fees required by law or permitted by the Indenture.

Section 9. *Denominations.*

The Securities are in fully registered form, without coupons, in denominations of $1.00 of principal amount and any multiple thereof.

Section 10. *Unclaimed Money or Securities.*

Any money deposited with the Trustee or any Paying Agent for the payment of principal not converted in accordance with Article Ten of the Indenture and remains unclaimed for six months after the Stated Maturity Date shall be paid to the Company upon Company Request, subject to any applicable unclaimed property law. After any such payments, Holders entitled to such money must look only to the Company for payment unless an applicable abandoned property law designates another person.

Section 11. *Amendment; Waiver.*

Subject to certain exceptions set forth in the Indenture, (i) the Indenture or the Securities may be amended with the written consent of the Holders of at least a majority in aggregate principal amount of the Securities at the time outstanding and (ii) certain Defaults may be waived with the written consent of the Holders of a majority in aggregate principal amount of the Securities at the time outstanding. Subject to certain exceptions set forth in the Indenture, without the consent of any Holder, the Company and the Trustee may amend the Indenture or the Securities (i) to evidence the succession of another Person to the Company and the assumption by any such successor of the covenants of the Company under the Indenture and contained in the Securities, (ii) to add additional covenants or to surrender rights and powers conferred on the Company, (iii) to add any additional

evidences of default, (iv) to evidence and provide for the acceptance of appointment under the Indenture of a successor Trustee or (v) to cure any ambiguity in the Indenture, to correct or supplement any provision of the Indenture which may be inconsistent with any other provision therein, or to make other provisions with respect to matters or questions arising under the Indenture, provided that such actions shall not adversely affect the interests of the Holders in any material respect.

Section 12. *Defaults and Remedies.*

Except as set forth in the Indenture, if an Event of Default occurs and is continuing, the Trustee or the Holders of not less than 51% in principal amount of Securities then outstanding may declare all the Securities to be due and payable in the manner, at the time and with the effect provided in the Indenture. Certain events of bankruptcy or insolvency are Events of Default and shall result in the Securities being immediately due and payable upon the occurrence of such Events of Default without any further act of the Trustee or any Holder.

Holders of Securities may not enforce the Indenture or the Securities except as provided in the Indenture. The Trustee is not obligated to enforce the Indenture or the Securities unless it has received indemnity or security reasonably satisfactory to it. The Indenture permits, subject to certain limitations therein provided, Holders of a majority in aggregate principal amount of the Securities then outstanding to direct the Trustee in its exercise of any trust or power. Subject to certain provisions set forth in the Indenture, Holders of a majority in an aggregate principal amount of the Securities at the time outstanding, by written notice to the Company and the Trustee, may rescind any declaration of acceleration due to an Event of Default, and the applicable Event of Default shall be deemed to have been cured for every purpose of the Indenture.

Section 13. *Individual Rights of Trustee and Other Agents.*

Subject to certain limitations imposed by the Trust Indenture Act, the Trustee or any Paying Agent, Conversion Agent, Security Registrar, Securities Custodian or Authenticating Agent, in its individual or other capacity, may become the owner or pledgee of Securities and may otherwise deal with the Company or its Affiliates with the same rights it would have if it were not Trustee, Paying Agent, Conversion Agent, Security Registrar, Securities Custodian or Authenticating Agent.

Section 14. *No Recourse Against Others.*

A director, officer, employee or shareholder, as such, of the Company shall not have any liability for any obligations of the Company under the Securities or the Indenture or for any claim based on, in respect of, or by reason of, such obligations or their creation. By accepting a Security, each Holder waives and releases all such liability. The waiver and release are part of the consideration for the issue of the Securities.

Section 15. *Authentication.*

This Security shall not be valid until an authorized signatory of the Trustee manually signs the Trustee's Certificate of Authentication on the other side of this Security.

Section 16. *Governing Law.*

THE LAWS OF THE STATE OF NEW YORK SHALL GOVERN THE INDENTURE AND THIS SECURITY.

ASSIGNMENT FORM

To assign this Security, fill in the form below

I or we assign and transfer this Security to _____

_____

_____

(Insert assignee's soc. sec. or tax ID no.) _____

_____

_____

(Print or type assignee's name, address and zip code) _____

_____

_____

_____

and irrevocably appoint as agent to transfer this Security on the books of the Company. The agent may substitute another to act for him.

Date: _____

Signature Guaranteed

_____

Participant in a Recognized Signature Guarantee Medallion Program

By: _____

Authorized Signatory

CONVERSION NOTICE

To convert this Security into Common Stock of the Company, check the box ☐

To convert only part of this Security, state the principal amount to be converted:

If you want the stock certificate made out in another person's name fill in the form below: _____

_____

_____

(Insert the other person's soc. sec. tax ID no.) _____

_____

_____

(Print or type other person's name, address and zip code)

Your Signature: _____

(Sign exactly as your name appears on the other side of this Security)

REDEMPTION NOTICE

To redeem this Security into Common Stock of the Company, check the box ☐

To redeem only part of this Security, state the principal amount to be redeemed:

(Insert the other person's soc. sec. tax ID no.)

_____

_____

_____

(Print or type other person's name, address and zip code)

Your Signature: _____

(Sign exactly as your name appears on the other side of this Security)

EXHIBIT C

ESCROW AGREEMENT

PART II
INFORMATION NOT REQUIRED IN PROXY STATEMENT/PROSPECTUS/INFORMATION STATEMENT

Item 20. ***Indemnification of Directors and Officers***

Subsection (a) of Section 145 of the General Corporation Law of the State of Delaware, or the DGCL, empowers a corporation to indemnify any person who was or is a party or who is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe the person's conduct was unlawful.

Subsection (b) of Section 145 empowers a corporation to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that the person acted in any of the capacities set forth above, against expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation, except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Section 145 further provides that to the extent a director or officer of a corporation has been successful on the merits or otherwise in the defense of any action, suit or proceeding referred to in subsections (a) and (b) of Section 145, or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith; that indemnification provided for by Section 145 shall not be deemed exclusive of any other rights to which the indemnified party may be entitled; and the indemnification provided for by Section 145 shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of such person's heirs, executors and administrators. Section 145 also empowers the corporation to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of his status as such, whether or not the corporation would have the power to indemnify such person against such liabilities under Section 145.

Section 102(b)(7) of the DGCL provides that a corporation's certificate of incorporation may contain a provision eliminating or limiting the personal liability of a director to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, provided that such provision shall not eliminate or limit the liability of a director (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL, or (iv) for any transaction from which the director derived an improper personal benefit.

The Targacept amended and restated certificate of incorporation contains provisions that eliminate, to the maximum extent permitted by the DGCL, the personal liability of directors and executive officers for monetary

damages for breach of their fiduciary duties as a director or officer. The Targacept amended and restated certificate of incorporation and bylaws provide that Targacept shall indemnify its directors and executive officers and may indemnify its employees and other agents to the fullest extent permitted by the DGCL.

Targacept entered into indemnification agreements with its directors and executive officers, in addition to the indemnification provided for in its amended and restated certificate of incorporation and bylaws, and intends to enter into indemnification agreements with any new directors and executive officers in the future.

Targacept has purchased and intends to maintain insurance on behalf of any person who is or was a director or officer of Targacept against any loss arising from any claim asserted against him or her and incurred by him or her in any such capacity, subject to certain exclusion.

Pursuant to the terms of the Merger Agreement, for six years from the effective time of the merger, Targacept must indemnify each individual who is at the effective date of the merger a director or officer of Targacept against claims, costs and damages incurred as a result of such director or officer serving as a director or officer of Targacept, to the fullest extent permitted under the DGCL. Each such person will also be entitled to advancement of expenses incurred in the defense of such claims, provided that such person provides an undertaking required by applicable law to repay such advancement if it is ultimately determined that such person is not entitled to indemnification. Targacept must also purchase a six-year insurance policy under its own existing directors' and officers' liability insurance policy, effective as of the closing of the merger, on terms and conditions and with coverage limits with coverage that is not less favorable to the current directors' and officers' liability insurance policies maintained by Targacept prior to the closing of the merger.

Item 21. ***Exhibits and Financial Statement Schedules***

(a) Exhibit Index

A list of exhibits filed with this registration statement on Form S-4 is set forth on the Exhibit Index and is incorporated herein by reference.

(b) Financial Statements

The financial statements filed with this registration statement on Form S-4 is set forth on the Financial Statement Index and is incorporated herein by reference.

Item 22. ***Undertakings***

The undersigned registrant hereby undertakes as follows:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement: (i) to include any prospectus required by Section 10(a)(3) of the Securities Act of 1933, as amended (the "Securities Act"); (ii) to reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement (notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Securities and Exchange Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement); and (iii) to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser, each filing of the Registrant's annual report pursuant to Section 13 (a) or 15 (d) of the Securities Exchange Act of 1934, as amended (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15 (d) of the Securities Exchange Act of 1934, as amended) that is incorporated by reference in this registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(5) That prior to any public reoffering of the securities registered hereunder through use of a prospectus which is a part of this registration statement, by any person or party who is deemed to be an underwriter within the meaning of Rule 145(c), the issuer undertakes that such reoffering prospectus will contain the information called for by the applicable registration form with respect to reofferings by persons who may be deemed underwriters, in addition to the information called for by the other items of the applicable form.

(6) That every prospectus (i) that is filed pursuant to paragraph (a)(1) immediately preceding, or (ii) that purports to meet the requirements of Section 10(a)(3) of the Securities Act and is used in connection with an offering of securities subject to Rule 415, will be filed as a part of an amendment to the registration statement and will not be used until such amendment is effective, and that, for purposes of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(7) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

(8) If and when applicable, the undersigned registrant, hereby undertakes to file an application for the purpose of determining the eligibility of the Trustee to act under subsection (a) of Section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the Commission under Section 305(b)(2) of the Act.

(9) To respond to requests for information that is incorporated by reference into this prospectus pursuant to Item 4, 10(b), 11, or 13 of this Form, within one business day of receipt of such request, and to send the incorporated documents by first class mail or other equally prompt means. This includes information contained in documents filed subsequent to the effective date of the registration statement through the date of responding to the request.

(10) To supply by means of a post-effective amendment all information concerning a transaction, and the company being acquired involved therein, that was not the subject of and included in the registration statement when it became effective.

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SIGNATURES

Pursuant to the requirements of the Securities Act, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized in the city of Winston-Salem, State of North Carolina, on the 17th day of July, 2015.

Targacept, Inc.

By: /s/ Stephen A. Hill
Stephen A. Hill
President and Chief Executive Officer

Pursuant to the requirements of the Securities Act, this registration statement has been signed by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Stephen A. Hill Stephen A. Hill	Chief Executive Officer, President and Director (principal executive officer)	July 17, 2015
/s/ Mauri K. Hodges Mauri K. Hodges	Vice President, Finance and Administration, Chief Financial Officer (principal financial officer and principal accounting officer)	July 17, 2015
* John P. Richard	Chairman of the Board of Directors	July 17, 2015
* Charles A. Blixt	Director	July 17, 2015
* Julia R. Brown	Director	July 17, 2015
* Errol B. De Souza	Director	July 17, 2015
* Alan W. Dunton	Director	July 17, 2015

*By: /s/ Mauri K. Hodges
Mauri K. Hodges
Attorney-in-fact

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EXHIBIT INDEX

Exhibit Number	Description
2.1(a)	Agreement and Plan of Merger dated as of March 5, 2015 by and among Targacept, Catalyst and Talos Merger Sub, Inc. (incorporated by reference to Exhibit 2.1 to Targacept's Current Report on Form 8-K, as filed with the SEC on March 6, 2015)
2.1(b)	Amendment No. 1 to Agreement and Plan of Merger by and among Targacept, Talos Merger Sub, Inc., and Catalyst dated May 6, 2015 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, as filed with the SEC on May 12, 2015)
2.1(c)	Amendment No. 2 to Agreement and Plan of Merger by and among Targacept, Talos Merger Sub, Inc., and Catalyst dated May 13, 2015 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, as filed with the SEC on May 14, 2015)
3.1	Restated Certificate of Incorporation of Targacept (incorporated by reference to Exhibit 4.1 to Targacept's Registration Statement on Form S-8, as filed with the SEC on May 8, 2006 (Registration No. 333-133881))
3.2	Bylaws of Targacept, as amended and restated January 9, 2009 and further amended effective as of March 5, 2015 (incorporated by reference to Exhibit 3.1 to Targacept's Current Report on Form 8-K, as filed with the SEC on March 6, 2015)
4.1	Specimen common stock certificate (incorporated by reference to Exhibit 4.1 to Amendment No. 3 to Targacept's Registration Statement on Form S-1, as filed with the SEC on March 16, 2006 (Registration No. 333-131050))
4.2(a)	Third Amended and Restated Investor Rights Agreement, dated as of May 12, 2004, by and among Targacept and certain stockholders of Targacept (incorporated by reference to Exhibit 4.2(a) to Targacept's Registration Statement on Form S-1, as filed with the SEC on January 17, 2006 (Registration No. 333-131050))
4.2(b)	Amendment No. 1, dated December 6, 2004, to Third Amended and Restated Investor Rights Agreement, dated May 12, 2004 (incorporated by reference to Exhibit 4.2(b) to Targacept's Registration Statement on Form S-1, as filed with the SEC on January 17, 2006 (Registration No. 333-131050))
4.2(c)	Amendment No. 2, dated March 16, 2006, to Third Amended and Restated Investor Rights Agreement, dated May 12, 2004 (incorporated by reference to Exhibit 4.2(c) to Amendment No. 4 to Targacept's Registration Statement on Form S-1, as filed with the SEC on March 24, 2006 (Registration No. 333-131050))
4.3(a)	Form of Indenture by and between Targacept and American Stock Transfer & Trust Company, LLC (included as Exhibit E to the Agreement and Plan of Merger, incorporated by reference to Exhibit 2.1 to Targacept's Current Report on 8-K, as filed with the SEC on March 6, 2015)
4.3(b)	Form of Global Security (included as Exhibit A to the Form of Indenture incorporated by reference to Exhibit 4.3(a))
4.4	Form of Convertible Promissory Note (included in Exhibit 10.43(a))
4.5	Form of Warrant (included in Exhibit 10.43(a))
4.3(c)	Form of Definitive Security (included as Exhibit B to the Form of Indenture incorporated by reference to Exhibit 4.3(a))
5.1	Legal Opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
8.1	Opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. regarding tax matters.
8.2	Opinion of Morrison & Foerster LLP regarding tax matters.
10.1*	Form of Indemnification Agreement between Targacept and each of its directors and members of executive management (incorporated by reference to Exhibit 10.1 to Amendment No. 3 to Targacept's Registration Statement on Form S-1, as filed with the SEC on March 16, 2006 (Registration No. 333-131050))
10.2	Sublease, dated December 4, 2012, by and between Targacept and B/E Aerospace, Inc. (incorporated by reference to Exhibit 10.2 to Targacept's Annual Report on Form 10-K for the Year Ended December 31, 2012).

Exhibit Number	Description
10.3(a)*	Amended and Restated Targacept, Inc. 2000 Equity Incentive Plan (incorporated by reference to Exhibit 99 to Targacept's Registration Statement on Form S-8, as filed with the SEC on May 8, 2006 (Registration No. 333-133882))
10.3(b)*	Form of Incentive Stock Option Agreement under Targacept, Inc. 2000 Equity Incentive Plan (incorporated by reference to Exhibit 10.5(b) to Targacept's Registration Statement on Form S-1, as filed with the SEC on January 17, 2006 (Registration No. 333-131050))
10.3(c)*	Form of Non-employee Director Nonqualified Stock Option Agreement under Targacept, Inc. 2000 Equity Incentive Plan (incorporated by reference to Exhibit 10.5(c) to Targacept's Registration Statement on Form S-1, as filed with the SEC on January 17, 2006 (Registration No. 333-131050))
10.3(d)*	Form of Restricted Stock Award Agreement under Targacept, Inc. 2000 Equity Incentive Plan (incorporated by reference to Exhibit 10.5(d) to Targacept's Registration Statement on Form S-1, as filed with the SEC on January 17, 2006 (Registration No. 333-131050))
10.4(a)*	Targacept, Inc. 2006 Stock Incentive Plan, as amended and restated through March 9, 2011 and further amended on December 7, 2012, March 13, 2013 and April 10, 2013 (incorporated by reference to Exhibit 99 to Targacept's Registration Statement on Form S-8, as filed with the SEC on June 6, 2013 (Registration No. 333-189143))
10.4(b)*	Form of Incentive Stock Option Agreement under Targacept, Inc. 2006 Stock Incentive Plan (incorporated by reference to Exhibit 10.6(a) to Amendment No. 3 to Targacept's Registration Statement on Form S-1, as filed with the SEC on March 16, 2006 (Registration No. 333-131050))
10.4(c)*	Form of Nonqualified Stock Option Agreement under Targacept, Inc. 2006 Stock Incentive Plan (incorporated by reference to Exhibit 10.6(b) to Amendment No. 3 to Targacept's Registration Statement on Form S-1, as filed with the SEC on March 16, 2006 (Registration No. 333-131050))
10.4(d)*	Form of Non-employee Director Nonqualified Stock Option Agreement under Targacept, Inc. 2006 Stock Incentive Plan (incorporated by reference to Exhibit 10.6(c) to Amendment No. 3 to Targacept's Registration Statement on Form S-1, as filed with the SEC on March 16, 2006 (Registration No. 333-131050))
10.4(e)*	Form of Restricted Stock Award Agreement under Targacept, Inc. 2006 Stock Incentive Plan (incorporated by reference to Exhibit 10.6(d) to Amendment No. 3 to Targacept's Registration Statement on Form S-1, as filed with the SEC on March 16, 2006 (Registration No. 333-131050))
10.5*	Separation Agreement and Release, dated June 21, 2012, by and between Targacept and J. Donald deBethizy (incorporated by reference to Exhibit 10.2 to Targacept's Quarterly Report on Form 10-Q for the Quarter Ended June 30, 2012)
10.6(a)*	Employment Agreement, dated as of February 8, 2002, by and between Targacept and Alan A. Musso (incorporated by reference to Exhibit 10.11 to Targacept's Registration Statement on Form S-1, as filed with the SEC on January 17, 2006 (Registration No. 333-131050))
10.6(b)*	Amendment No. 1, dated March 13, 2008, to Employment Agreement, dated as of February 8, 2002, by and between Targacept and Alan A. Musso (incorporated by reference to Exhibit 10.7 to Targacept's Quarterly Report on Form 10-Q for the Quarter Ended March 31, 2008)
10.7*	Separation Agreement and Release, dated as of March 29, 2013, by and between Targacept and Jeffrey P. Brennan (incorporated by reference to Exhibit 10.2 to Targacept's Quarterly Report on Form 10-Q for the Quarter Ended March 31, 2013)
10.8*	Transition Services Agreement, effective as of August 13, 2013, by and between Targacept and Peter A. Zorn (incorporated by reference to Exhibit 10.1 to Targacept's Current Report on Form 8-K, as filed with the SEC on August 13, 2013)

Exhibit Number	Description
10.9*	Employment Agreement, effective as of November 14, 2012, by and between Targacept and Stephen A. Hill (incorporated by reference to Exhibit 10.1 to Targacept's Current Report on Form 8-K, as filed with the SEC on November 16, 2012)
10.10*	Nonqualified Stock Option Agreement, dated December 3, 2012, by and between Targacept and Stephen A. Hill (incorporated by reference to Exhibit 99.1 to Targacept's Registration Statement on Form S-8, as filed with the SEC on January 4, 2013 (Registration No. 333-185888))
10.11*	Form of Retention Award Agreement by and between Targacept and its executive officers and certain other personnel (incorporated by reference to Exhibit 10.11 to Targacept's Annual Report on Form 10-K for the Year Ended December 31, 2012)
10.12(a)+	Amended and Restated License Agreement, dated as of March 9, 2004, by and between Targacept and University of South Florida Research Foundation, Inc. (incorporated by reference to Exhibit 10.16 to Targacept's Registration Statement on Form S-1, as filed with the SEC on January 17, 2006 (Registration No. 333-131050))
10.12(b)+	Amendment No. 1, effective September 21, 2009, to Amended and Restated License Agreement dated March 9, 2004, by and between Targacept and University of South Florida Research Foundation, Inc. (incorporated by reference to Exhibit 10.2 to Targacept's Quarterly Report on Form 10-Q for the Quarter Ended September 30, 2009)
10.13(a)+	License Agreement, dated May 26, 1999, by and between Targacept and University of Kentucky Research Foundation (incorporated by reference to Exhibit 10.18(a) to Targacept's Registration Statement on Form S-1, as filed with the SEC on January 17, 2006 (Registration No. 333-131050))
10.13(b)+	Amendment No. 1, dated August 16, 2005, to License Agreement, dated May 26, 1999, by and between Targacept and University of Kentucky Research Foundation (incorporated by reference to Exhibit 10.18(b) to Amendment No. 5 to Targacept's Registration Statement on Form S-1, as filed with the SEC on April 6, 2006 (Registration No. 333-131050))
10.14+	Amended and Restated Supply Agreement, effective December 3, 2009, by and among Targacept, Interchem Corporation and Euticals S.p.A. (as successor to Poli Industria Chimica, SPA) (incorporated by reference to Exhibit 10.19 to Targacept's Annual Report on Form 10-K for the Year Ended December 31, 2009)
10.15*	Description of Annual Cash Incentive Program (incorporated by reference to Exhibit 10.16 to Targacept's Annual Report on Form 10-K for the Year Ended December 31, 2012)
10.16*	Description of Non-Employee Director Compensation Program (incorporated by reference to Exhibit 10.17 to Targacept's Annual Report on Form 10-K for the Year Ended December 31, 2012)
10.17*	Employment Agreement, effective as of August 26, 2013 by and between Targacept and Patrick C. Rock (incorporated by reference in Exhibit 10.1 to Targacept's Quarterly Report on Form 10-Q for the Quarter Ended September 30, 2013)
10.18*	Form of Non-employee Director Nonqualified Stock Option Agreement under Targacept, Inc. 2006 Stock Incentive Plan (incorporated by reference in Exhibit 10.3 to Targacept's Quarterly Report on Form 10-Q for the Quarter Ended September 30, 2013)
10.19	At-the-Market Issuance Sales Agreement, dated November 26, 2013 (incorporated by reference to Exhibit 10.1 to Targacept's Current Report on Form 8-K, as filed with the SEC on November 26, 2013)
10.20*	Employment Agreement, effective as of June 28, 2013, by and between Targacept and Steven M. Toler, Ph.D. (incorporated by reference to Exhibit 10.3 to Targacept's Quarterly Report on Form 10-Q for the Quarter Ended June 30, 2013)

Exhibit Number	Description
10.21*	Employment Agreement, effective as of June 28, 2013, by and between Targacept and David A. Hosford, M.D. (incorporated by reference to Exhibit 10.1 to Targacept's Current Report on Form 8-K, as filed with the SEC on June 28, 2013)
10.22*	Amendment No. 1 to Employment Agreement, dated January 24, 2014, by and between Targacept and Stephen A. Hill (incorporated by reference to Exhibit 10.1 to Targacept's Current Report on Form 8-K, as filed with the SEC on January 28, 2014)
10.23*	Amended and Restated Employment Agreement, dated January 24, 2014, by and between Targacept and Alan A. Musso (incorporated by reference to Exhibit 10.2 to Targacept's Current Report on Form 8-K, as filed with the SEC on January 28, 2014)
10.24*	Employment Agreement, effective as of October 8, 2014, by and between Targacept and Scott N. Cullison (incorporated by reference to Exhibit 10.24 to Targacept's Annual Report on Form 10-K, as filed on March 16, 2015)
10.25*	Employment Agreement, effective as of June 28, 2013, by and between Targacept and Mauri K. Hodges (incorporated by reference to Exhibit 10.1 to Targacept's Current Report on Form 8-K, as filed with the SEC on December 16, 2014)
10.26	Form of Targacept Voting Agreement dated as of March 5, 2015 entered into by and among Targacept, Catalyst and certain stockholders of Targacept (incorporated by reference to Exhibit 10.1 to Targacept's Current Report on 8-K, as filed with the SEC on March 6, 2015)
10.27	Form of Catalyst Voting Agreement dated as of March 5, 2015 entered into by and among Catalyst, Targacept and certain stockholders of Catalyst (incorporated by reference to Exhibit 10.2 to Targacept's Current Report on 8-K, as filed with the SEC on March 6, 2015)
10.28	Form of Lock-Up Agreement dated as of March 5, 2015 entered into by and among Catalyst, Targacept and certain stockholders of Catalyst (incorporated by reference to Exhibit 10.3 to Targacept's Current Report on 8-K, as filed with the SEC on March 6, 2015)
10.29#	Sublease, dated February 23, 2015, by and between Catalyst and Reset Therapeutics, Inc.
10.30(a)++	License and Collaboration Agreement, dated September 16, 2013, by and between Catalyst and ISU Abxis
10.30(b)++#	Amendment No. 1 to License and Collaboration Agreement, dated October 31, 2014, by and between Catalyst and ISU Abxis
10.31(a)*#	Catalyst's 2004 Stock Plan
10.31(b)*#	Form of Stock Option Agreement—Early Exercise under Catalyst's 2004 Stock Plan (incorporated by reference to Exhibit 10.31(a)).
10.32*	Form of Indemnification Agreement between Catalyst and each of its directors and members of executive management, other than the Indemnification Agreement by and between Catalyst and Fletcher Payne (incorporated by reference to Exhibit 10.33)
10.33*#	Indemnification Agreement, dated January 14, 2015, by and between Catalyst and Fletcher Payne
10.34*#	Offer Letter, executed April 27, 2012, by and between Catalyst and Dr. Harold E. Selick
10.35*#	Offer Letter, executed February 21, 2006, by and between Catalyst and Dr. Nassim Usman
10.36*#	Offer Letter, executed December 1, 2003, by and between Catalyst and Dr. Edwin Madison
10.37(a)*#	Letter Agreement, dated February 15, 2007, by and between Catalyst and Dr. Edwin Madison

Exhibit Number	Description
10.37(b)*#	Amendment to Letter Agreement, dated September 24, 2008, by and between Catalyst and Dr. Edwin Madison
10.37(c)*#	Amendment to Letter Agreement, dated February 12, 2013, by and between Catalyst and Dr. Edwin Madison
10.38*#	Consulting Agreement, dated January 14, 2015, by and between the Catalyst and Fletcher Payne
10.39*#	Offer Letter, dated March 30, 2015, by and between Catalyst and Fletcher Payne
10.40(a)*#	Stock Option Agreement—Early Exercise, No. 427, dated January 22, 2015, by and between Catalyst and Fletcher Payne
10.40(b)*#	Stock Option Agreement—Early Exercise, No. 428, dated January 22, 2015, by and between Catalyst and Fletcher Payne
10.40(c)#	Stock Option Agreement—Early Exercise, No. 429, dated May 8, 2015, by and between Catalyst and Fletcher Payne
10.41	Form of Targacept Voting Agreement dated as of May 13, 2015 entered into by and among Targacept, Catalyst and certain stockholders of Targacept, as amended (incorporated by reference to Exhibit 10.2 to the Targacept's Current Report on Form 8-K, as filed with the SEC on May 14, 2015)
10.42	Form of Catalyst Voting Agreement dated as of May 13, 2015 entered into by and among Catalyst, Targacept and certain stockholders of Catalyst, as amended (incorporated by reference to Exhibit 10.3 to the Targacept's Current Report on Form 8-K, as filed with the SEC on May 14, 2015)
10.43(a)#	Note and Warrant Purchase Agreement, dated May 29, 2015, by and between Catalyst and certain investors
10.43(b)#	Amendment No. 1 to Note and Warrant Purchase Agreement, dated June 29, 2015, by and between Catalyst and certain investors
12.1#	Ratio of Earnings to Fixed Charges
23.1	Consent of Ernst & Young LLP
23.2	Consent of EisnerAmper LLP
23.3	Consent of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. (included in Exhibit 5.1 hereto).
23.4	Consent of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. (included in Exhibit 8.1 hereto).
23.5	Consent of Morrison & Foerster LLP (included in Exhibit 8.2 hereto).
24.1	Power of Attorney (included on the signature page to this Registration Statement on Form S-4 filed on May 22, 2015)
25.1#	Statement of Eligibility of Trustee on Form T-1.
99.1	Form of Targacept, Inc. Proxy Card
99.2#	Opinion of Stifel, Nicolaus & Company, Incorporated (included as Annex B to the proxy statement/prospectus/information statement)
99.3#	Consent of Harold Selick to serve as a director of Targacept, Inc.
99.4#	Consent of Nassim Usman, Ph.D. to serve as a director of Targacept, Inc.
99.5#	Consent of Jeff Himawan to serve as a director of Targacept, Inc.
99.6#	Consent of Augustine Lawlor to serve as a director of Targacept, Inc.

Table of Contents

Exhibit Number	Description
101	The following financial statement materials from the Company's Registration Statement on Form S-4 for the three months ended March 31, 2015 and the year ended December 31, 2014, formatted in XBRL (eXtensible Business Reporting Language): (i) the Balance Sheets, (ii) the Statements of Comprehensive Income (Loss), (iii) the Statements of Stockholders' Equity, (iv) the Statements of Cash Flows, and (v) Notes to Financial Statements.

+ Confidential treatment has been granted with respect to certain portions of this Exhibit, which portions have been omitted and filed separately with the SEC as part of an application for confidential treatment.
++ Confidential treatment has been requested with respect to certain portions of this Exhibit, which portions have been omitted and filed separately with the SEC as part of an application for confidential treatment.
* Denotes management contract, compensatory plan or arrangement.
# Previously filed

The Registrant's SEC file number for documents filed with the SEC pursuant to the Securities Exchange Act of 1934, as amended, is 000-51173.

Exhibit 5.1

MINTZ LEVIN

One Financial Center
Boston, MA 02111
617-542-6000
617-542-2241 fax
www.mintz.com

July 17, 2015

Targacept, Inc.
100 North Main Street, Suite 1510
Winston-Salem, North Carolina 27101

Ladies and Gentlemen:

We have acted as counsel to Targacept, Inc. (the "Company") in connection with the filing by the Company of a Registration Statement on Form S-4 (as amended, the "Registration Statement") with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"). The Registration Statement provides for the registration by the Company of up to (i) 6,937,017 shares of its common stock, par value $0.001 (the "Merger Shares"), (ii) $37,000,000 in aggregate principal amount of redeemable convertible notes (the "Notes") and (iii) 4,026,116 shares of its common stock, par value $0.001, issuable upon conversion of the Notes (the "Conversion Shares" and, together with the Notes and the Merger Shares the "Transaction Securities") upon the consummation of the merger (the "Merger") of Talos Merger Sub, Inc., a Delaware corporation and a direct, wholly-owned subsidiary of the Company ("Talos Merger Sub"), with and into Catalyst Biosciences, Inc., a Delaware corporation ("Catalyst"), pursuant to that certain Agreement and Plan of Merger, dated March 5, 2015, as amended on May 6 and May 13, 2015, by and among the Company, Talos Merger Sub and Catalyst (the "Merger Agreement").

As the counsel to the Company in connection with the Registration Statement, we have examined the actions taken by the Company in connection with the authorization of the issuance of the Transaction Securities, and such documents as we have deemed necessary to render this opinion. In our examination, we have assumed the genuineness of all signatures, the legal capacity of natural persons, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified or photostatic copies and the authenticity of the originals of such copies. As to questions of fact material to this opinion, we have relied upon certificates or comparable documents of public officials and of officers and representatives of the Company.

Our opinion is limited to the federal laws of the United States and the Delaware General Corporation Law and we express no opinion with respect to the laws of any other jurisdiction. No opinion is expressed herein with respect to the qualification of the Transaction Securities under the securities or blue sky laws of any state or any foreign jurisdiction.

Based upon and subject to the foregoing, it is our opinion that, when such securities are issued and delivered by the Company in accordance with the Merger Agreement, (i) the Merger Shares and the Conversion Shares will be validly issued, fully paid and non-assessable and (ii) the Notes will constitute the valid and binding obligations of the Company.

Please note that we are opining only as to the matters expressly set forth herein, and no opinion should be inferred as to any other matters. This opinion is based upon currently existing statutes, rules, regulations and judicial

decisions, and we disclaim any obligation to advise you of any change in any of these sources of law or subsequent legal or factual developments which might affect any matters or opinions set forth herein.

We understand that you wish to file this opinion with the Commission as an exhibit to the Registration Statement in accordance with the requirements of Item 601(b)(5) of Regulation S-K promulgated under the Securities Act and to reference the firm's name under the caption "Legal Matters" in the prospectus which forms part of the Registration Statement, and we hereby consent thereto. In giving this consent, we do not admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

Very truly yours,

/s/ Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

Exhibit 8.1

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
One Financial Center
Boston, MA 02111

Targacept, Inc.
100 North Main Street, Suite 1510
Winston-Salem, North Carolina 27101

July 17, 2015

Re: Agreement and Plan of Merger dated as of March 5, 2015, as amended

Ladies and Gentlemen:

We have acted as special counsel to Targacept, Inc., a Delaware corporation ("Targacept"), in connection with the Agreement and Plan of Merger dated as of March 5, 2015, as amended on May 6 and May 13, 2015 (the "Merger Agreement"), by and among Targacept, Talos Merger Sub, Inc., a Delaware corporation and a wholly-owned subsidiary of Targacept ("Merger Sub") and Catalyst Biosciences, Inc. ("Catalyst"), pursuant to which Merger Sub will merge with and into Catalyst, with Catalyst surviving. In connection with the Merger, and pursuant to the Merger Agreement, (1) Targacept will amend its restated certificate of incorporation to effect a reverse stock split of Targacept common stock, $0.001 par value per share, at a ratio of 7-for-1 (the "Reverse Stock Split"), and (2) Targacept will declare and pay a dividend (the "Pre-Closing Dividend") to its shareholders consisting of (a) cash, and (b) redeemable convertible notes of Targacept. This opinion is being delivered in connection with the filing of the registration statement on Form S-4 filed by Targacept with the Securities and Exchange Commission (the "Registration Statement"). Capitalized terms not defined herein have the meanings specified in the Merger Agreement unless otherwise indicated.

In rendering our opinion, we have examined and, with your consent, are expressly relying upon (without any independent investigation or review thereof) the truth and accuracy of the factual statements, representations and warranties contained in (i) the Merger Agreement (including any Exhibits and Schedules thereto), (ii) the Registration Statement, and (iii) such other documents and corporate records as we have deemed necessary or appropriate for purposes of our opinion.

In addition, we have assumed, with your consent, that:

1. Original documents (including signatures) are authentic, and documents submitted to us as copies conform to the original documents, and there has been (or will be by the effective time of the Merger (the "Effective Time")) execution and delivery of all documents where execution and delivery are prerequisites to the effectiveness thereof;

2. The Merger, Reverse Stock Split and Pre-Closing Dividend will be consummated in the manner contemplated by, and in accordance with the provisions of, the Merger Agreement and the Registration Statement, and the Merger will be effective under the laws of the State of Delaware;

3. All factual statements, descriptions and representations contained in any of the documents referred to herein or otherwise made to us are true, complete and correct in all respects and will remain true, complete and correct in all respects up to and including the Effective Time, and no actions have been taken or will be taken which are inconsistent with such factual statements, descriptions or representations or which make any such factual statements, descriptions or representations untrue, incomplete or incorrect at the Effective Time;

4. Any statements made in any of the documents referred to herein "to the knowledge of" or similarly qualified are true, complete and correct in all respects and will continue to be true, complete and correct in all respects at all times up to and including the Effective Time, in each case without such qualification;

5. The parties have complied with and, if applicable, will continue to comply with, the covenants contained in the Merger Agreement and the Registration Statement; and

6. There will be no change in applicable U.S. federal income tax law from the date hereof through the Effective Time.

Based upon and subject to the foregoing, and subject to the qualifications and limitations stated in the Registration Statement, the statements in the Registration Statement under the caption "The Merger – Material U.S. Federal Income Tax Consequences of the Pre-Closing Dividend to Holders of Targacept Common Stock," "—Material U.S. Federal Income Tax Consequences of the Ownership of the Redeemable Convertible Notes" and "Matters Being Submitted to a Vote of Targacept Stockholders—Targacept Proposal No. 2: Approval of the Amendment to the Certificate of Incorporation of Targacept to Effect the Reverse Stock Split—Material U.S. Federal Income Tax Consequences of the Reverse Stock Split," constitute the opinion of Mintz, Levin, Cohn, Ferris, Glovsky & Popeo, P.C. as to the material U.S. federal income tax consequences of the Pre-Closing Dividend, ownership of the redeemable convertible notes and the Reverse Stock Split.

In addition to the matters set forth above, this opinion is subject to the exceptions, limitations and qualifications set forth below.

1. This opinion represents our best judgment regarding the application of U.S. federal income tax laws arising under the Code, existing judicial decisions, administrative regulations and published rulings and procedures, but does not

address all of the U.S. federal income tax consequences of the Pre-Closing Dividend. We express no opinion as to U.S. federal, state, local, foreign or other tax consequences, other than as set forth herein. Our opinion is not binding upon the Internal Revenue Service or the courts, and there is no assurance that the Internal Revenue Service will not assert a contrary position. Furthermore, no assurance can be given that future legislative, judicial or administrative changes, on either a prospective or retroactive basis, would not adversely affect the accuracy of the conclusions stated herein.

2. No opinion is expressed as to any transaction other than the Pre-Closing Dividend and the ownership of the redeemable convertible notes as described in the Merger Agreement and the Registration Statement, or to any transaction whatsoever, including the Merger, if, to the extent relevant to our opinion, either all the transactions described in the Merger Agreement are not consummated in accordance with the terms of the Merger Agreement and without waiver or breach of any provisions thereof or all of the factual statements, representations, warranties and assumptions upon which we have relied are not true and accurate at all relevant times.

This opinion is rendered to you in connection with the filing of the Registration Statement. We consent (1) to the filing of this opinion as an exhibit to the Registration Statement, (2) to the references to our firm name therein under the caption “Legal Matters,” and under the captions “The Merger—Material U.S. Federal Income Tax Consequences of the Pre-Closing Dividend to Holders of Targacept Common Stock,” “—Material U.S. Federal Income Tax Consequences of the Ownership of the Redeemable Convertible Notes” and “Matters Being Submitted to a Vote of Targacept Stockholders—Targacept Proposal No. 2: Approval of the Amendment to the Certificate of Incorporation of Targacept to Effect the Reverse Stock Split—Material U.S. Federal Income Tax Consequences of the Reverse Stock Split,” and (3) to the inclusion of our opinion in the prospectus included within the Registration Statement. In giving this consent, we do not admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act of 1933, as amended, or the rules or regulations of the Securities and Exchange Commission promulgated thereunder.

Very truly yours,

/s/ Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

Exhibit 8.2

MORRISON | FOERSTER

1290 AVENUE OF THE AMERICAS
NEW YORK, NY 10104-0050

TELEPHONE: 212.468.8000
FACSIMILE: 212.468.7900

WWW.MOFO.COM

MORRISON & FOERSTER LLP

NEW YORK, SAN FRANCISCO,
LOS ANGELES, PALO ALTO,
SAN DIEGO, WASHINGTON, D.C.

NORTHERN VIRGINIA, DENVER,
SACRAMENTO, WALNUT CREEK

TOKYO, LONDON, BEIJING,
SHANGHAI, HONG KONG,
SINGAPORE, BRUSSELS

July 17, 2015

Catalyst Biosciences, Inc.
260 Littlefield Avenue
South San Francisco, CA 94080

Ladies and Gentlemen:

This opinion is being delivered to you in connection with the filing of a registration statement (the "Registration Statement") on Form S-4, as amended, by Targacept, Inc. ("Targacept") relating to the transactions described in that Agreement and Plan of Merger dated March 5, 2015, as amended on May 6 and May 13, 2015 (the "Merger Agreement") among Targacept, a Delaware corporation, Talos Merger Sub, Inc. ("Merger Sub"), a Delaware corporation, and Catalyst Biosciences, Inc. ("Catalyst"), a Delaware corporation. Pursuant to the Merger Agreement, Merger Sub will merge with and into Catalyst (the "Merger") in a transaction in which Catalyst will become a wholly-owned subsidiary of Targacept. Capitalized terms not defined herein shall have the meanings set forth in the Merger Agreement.

In rendering this opinion, we have relied, with your consent, upon the accuracy of the facts, representations, warranties and other matters and the fulfillment of the covenants and obligations set forth in (i) the Registration Statement, including the proxy statement and prospectus contained therein (ii) the Merger Agreement, (iii) representations made in letters from Catalyst and Targacept addressed to us for our use in rendering this opinion (the "Officer's Certificates"), and (iv) such other documents and corporate records as we have deemed necessary for the purpose of rendering the opinion set forth herein. We have also reviewed the opinion of counsel to be received by Targacept in connection with the Registration Statement.

In reviewing these documents, we have assumed the genuineness of all signatures, the capacity of each party executing a document to so execute that document, the authenticity of all documents submitted to us as originals and conformity with originals of all documents submitted to us as copies. In reaching the conclusions set forth in this letter, we have assumed that all of the documents related to the Merger were and will be duly authorized, executed, and delivered. We have further assumed that the respective parties thereto and all parties having obligations thereunder have acted and will continue to act in all respects at all relevant times in conformity with the requirements and provisions of such documents.

Based upon and subject to the foregoing, and subject to the exceptions, assumptions, qualifications and limitations in the Registration Statement and the exceptions, limitations and qualifications set forth below, the statements under the caption "The Merger – Material U.S. Federal Income Tax Consequences of the Merger to Holders of Catalyst Common Stock" constitute the opinion of Morrison & Foerster LLP.

The opinion expressed above is based on existing provisions of the Code, existing Treasury Regulations, published interpretations of the Code and such Treasury Regulations by the Internal Revenue Service, and existing court decisions, any of which could be changed at any time. Any such changes may or may not be retroactively applied. It is possible that contrary positions may be taken by the Internal Revenue Service and that a court may agree with such contrary positions. In addition, the opinion rendered herein is based on the facts as of the date hereof, and we disclaim any undertaking to advise you of any subsequent change of the facts stated or assumed herein or any subsequent change in applicable law that could affect the opinion rendered herein. Any variation or difference in any fact from those set forth or assumed herein may affect the conclusions stated herein.

Our opinion is based upon the accuracy of the certifications, representations and warranties and satisfaction of the covenants and obligations contained in the Merger Agreement, the Officer's Certificates and in the various other documents related thereto. In addition, our opinion is based on the assumption that there will be no change in applicable U.S. federal income tax law from the date hereof through the time the Merger becomes effective. Our opinion addresses only the specific federal income tax consequences of the Merger set forth above and does not address any other federal tax consequences, or any state or local tax consequences, or any tax consequences under the laws of any foreign jurisdiction.

We hereby consent to the inclusion of this opinion as an exhibit to the Registration Statement and to the reference to our firm name under the caption "The Merger—Material U.S. Federal Income Tax Consequences of the Merger to Holders of Catalyst Common Stock." We also consent to the inclusion of our opinion in the Registration Statement. In giving such consent, we do not thereby admit that we are an "expert" or are in the category of person whose consent is required under Section 7 of the Securities Act of 1933, as amended, or the rules or regulations of the Securities and Exchange Commission promulgated thereunder.

Very truly yours,

/s/ Morrison & Foerster LLP

Exhibit 10.30A

Execution Version

Confidential treatment has been sought for portions of this Agreement. The copy filed herewith omits the information subject to the confidential treatment request. Omissions are designated as * * *. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

LICENSE AND COLLABORATION AGREEMENT

This **LICENSE AND COLLABORATION AGREEMENT** (the "**Agreement**") is entered into as of September 16, 2013 (the "**Effective Date**") by and between Catalyst Biosciences, Inc., a Delaware corporation having a principal place of business at 260 Littlefield Avenue, South San Francisco, CA 94080 ("**Catalyst**"), and ISU Abxis, a Korean corporation having a principal place of business at Pangyo Global R&D Center, C Bldg, 5th Floor, 696-1 Sampyoung-dong, Bundang-gu, Sungnam, 463-400, Korea ("**ISU**"). ISU and Catalyst may each be referred to as a "**Party**" or collectively be referred to as the "**Parties**".

RECITALS

WHEREAS, Catalyst owns or has rights to certain technology related to human Factor IX ("**FIX**") and is willing to license such technology to ISU, and ISU desires to accept such license for the initial clinical and manufacturing development of products relating to FIX; and

WHEREAS, Catalyst and ISU desire to collaborate and leverage the respective Parties' intellectual property and protein engineering, development and manufacturing expertise in the development and commercialization of products relating to FIX, in accordance with the terms and conditions set forth herein;

NOW, THEREFORE, in consideration of the foregoing premises and the mutual promises, covenants and conditions contained in this Agreement, the Parties agree as follows:

ARTICLE 1
DEFINITIONS

The terms in this Agreement with initial letters capitalized, whether used in the singular or the plural, shall have the meaning set forth below or, if not listed below, the meaning designated elsewhere in this Agreement (and derivative forms of them shall be interpreted accordingly). The terms "include," "includes," "including" and derivative forms of them shall be deemed followed by the phrase "without limitation" regardless of whether such phrase appears there (and with no implication being drawn from its inconsistent inclusion or non-inclusion).

1.1 "**Acquiror**" has the meaning set forth in Section 15.5.

1.2 "**Affiliate**" means, with respect to a Person, any Person that controls, is controlled by or is under common control with such first Person. For purposes of this definition only, "control" means (a) to possess, directly or indirectly, the power to direct the management or policies of a Person, whether through ownership of voting securities, by contract relating to voting rights or corporate governance or otherwise, or (b) to own, directly or indirectly, fifty percent (50%) or more of the outstanding securities or other ownership interest of such Person. For the purposes of this Agreement, neither Party shall be considered an Affiliate of the other, and the Affiliates of each Party shall not be considered Affiliates of the other Party or of any of such other Party's Affiliates.

1.3 "Applicable Laws" means all applicable laws, rules, and regulations, including without limitation any rules, regulations, guidelines or other requirements of the Regulatory Authorities or other governmental authorities, that may be in effect from time to time in any relevant legal jurisdiction.

1.4 "**Catalyst Know-How**" means [* * *]. For clarity, Catalyst Know-How excludes Know-How contained within the Catalyst Patents.

1.5 "**Catalyst Patent Rights**" means [* * *]. Catalyst Patent Rights do not include Catalyst Know-How.

1.6 "**Catalyst Technology**" means the Catalyst Know-How and the Catalyst Patent Rights.

1.7 "**Claims**" has the meaning set forth in Section 11.1.

1.8 "Clinically Develop" or "Clinical Development" means all development activities which are directed to the preparation for, conduct of, and analysis of a clinical trial or study of the Product that relate to obtaining, maintaining or expanding Regulatory Approval of a Product, including, without limitation, as applicable, preclinical testing, toxicology, the examination of particular patient sub-populations within a given indication, and regulatory affairs (including preparation of Regulatory Filings).

1.9 "**Commercialize**" means to market, promote, sell, offer for sale and/or distribute.

1.10 "**Commercially Reasonable Efforts**" means, with respect to a Party's obligations under this Agreement, the carrying out of such obligations with a level of effort and resources consistent with [* * *].

1.11 "**Compound**" means [* * *].

1.12 "**Confidential Information**" of a Party means any and all information disclosed by such Party to the other Party under this Agreement or under the Prior CDA, whether in oral, written, graphic or electronic form.

1.13 "**Confirmation Testing**" means [* * *].

1.14 "**Control**" means, with respect to any particular Know-How or Patent, that a Party (a) owns or (b) has a license (other than a license granted to such Party under this Agreement) to such Know-How or Patent and, in each case, has the ability to grant to the other Party access, a license, or a sublicense (as applicable) to the Know-How or Patent on the terms and conditions set forth in this Agreement without violating the terms of any then-existing agreement or other arrangement with any Third Party.

1.15 "**Cover**" means, with respect to a particular item and a particular Patent, that such Patent claims or covers, in any of the countries of manufacture, use, and/or sale, (a) the composition of such item, any of its ingredients or formulations or any product containing or that is made using such item (by virtue of such product containing or being made using such item); (b) a method of making or using any of the foregoing things referred to in (a); (c) an item used or

present in the manufacture of any of the foregoing things referred to in (a); and/or (d) the method by which such item was discovered or identified, or another item present during or used in such method.

1.16 "Develop" or **"Development"** means Clinical Development and Manufacturing Development; provided, however, that Development shall exclude Commercialization and the building of commercial inventory of a Product.

1.17 "**Development Failure**" means [* * *].

1.18 "**Development Milestones**" means [* * *].

1.19 "**Development Plan**" means the plan set forth on Schedule 1.19 [* * *].

1.20 "**Dollar**" or "**$**" means a USA dollar.

1.21 "**Enabled Cell Lines**" means [* * *].

1.22 "**Executive Officer**" means, with respect to Catalyst, its Chief Executive Officer, and with respect to ISU, its Chief Executive Officer.

1.23 "**FD&C Act**" means the USA Federal Food, Drug and Cosmetic Act, as amended.

1.24 "**FDA**" means the USA Food and Drug Administration or any successor entity.

1.25 "**Field**" means the treatment or prevention of all human diseases and/or therapeutic indications.

1.26 "**First Commercial Sale**" means, with respect to a Product, [* * *].

1.27 "**Governmental Authority**" means any multi-national, federal, state, local, municipal, provincial or other governmental authority of any nature (including any governmental division, prefecture, subdivision, department, agency, bureau, branch, office, commission, council, court or other tribunal).

1.28 "IND" means (a) an Investigational New Drug Application as defined in the FD&C Act and applicable regulations promulgated thereunder by the FDA, or (b) the equivalent application to the equivalent agency in any other regulatory jurisdiction, the filing of which is necessary to initiate or conduct clinical testing of a pharmaceutical product in humans in such jurisdiction.

1.29 "Inventions" means any and all inventions conceived or reduced to practice by or on behalf of either Party or its Affiliates or sublicensees in the course of activities performed under the terms of this Agreement or contemplated by this Agreement.

1.30 "Information" means ideas, inventions, discoveries, concepts, formulas, practices, procedures, processes, methods, knowledge, know-how, trade secrets, technology, designs, drawings, computer programs, skill, experience, documents, results, clinical and regulatory strategies, test data, including without limitation pharmacological, toxicological, non-clinical and clinical data, analytical and quality control data, manufacturing data and descriptions, Regulatory Materials, Patent and legal data, market data, financial data or descriptions, assay protocols, specifications, and the like, in written, electronic or other form, now known or hereafter developed, whether or not patentable.

1.31 "**Internal Costs**" mean [* * *].

1.32 "**ISU Know-How**" means all [* * *].

1.33 "**ISU Patent Rights**" means [* * *]. ISU Patent Rights do not include ISU Know-How.

1.34 "**ISU Technology**" means the ISU Know-How and the ISU Patents.

1.35 "**Joint Steering Committee**" or "**JSC**" means the committee formed by the Parties as described in Section 3.2.

1.36 "**Korea**" means the Republic of Korea

1.37 "**Know-How**" means all technical information and know-how, including inventions, discoveries, trade secrets, specifications, instructions, processes, formulae, expertise, materials, methods, protocols and other technology applicable to formulations, compositions or products or to their manufacture, development, registration, use or marketing or processes for their manufacture, formulations containing them or compositions incorporating or comprising them, and including all biological, chemical, pharmacological, biochemical, toxicological, pharmaceutical, physical and analytical, safety, quality control, manufacturing, preclinical and clinical data, instructions, processes, formula, and expertise.

1.38 "**Laws**" means all laws, statutes, rules, regulations, ordinances and other pronouncements having the effect of law of any federal, national, multinational, state, provincial, county, city or other political subdivision, domestic or foreign.

1.39 "**Lead Candidate**" means [* * *].

1.40 "**Licensing and Transfer Costs**" shall mean [* * *].

1.41 "Manufacture" or **"Manufacturing"** means all manufacturing activities undertaken in support of clinical and commercial supply of Product, including without limitation assembly, sterilization, packaging, labeling, quality control and quality assurance, whether performed directly by a Party or indirectly through an Affiliate or Third Party.

1.42 "**Manufacturing Costs**" shall mean [* * *].

Confidential treatment has been sought for portions of this Agreement. The copy filed herewith omits the information subject to the confidential treatment request. Omissions are designated as * * *. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

1.43 "Manufacturing Development" means all development activities which are directed to the Manufacturing of the Product, including, without limitation, [* * *].

1.44 "**Marketing, Sales & Distribution Expenses**" shall mean [* * *].

1.45 "NDA" means a New Drug Application, as defined in the FD&C Act, as amended, and applicable regulations promulgated thereunder by the FDA, and the equivalent application to the equivalent Regulatory Authority in any other regulatory jurisdiction.

1.46 "**Net Profit**" shall mean the sum of Net Sales minus all of the following: [* * *].

(a) External costs shall be accounted for at the amount equal to amounts paid out to third parties. Catalyst is entitled to do all accounting hereunder in accordance with U.S. generally accepted accounting principles, consistently applied.

(b) If there is any overlap among different cost deduction categories used in the calculation of Net Sales and Net Profits, such individual costs, however, shall not be double-counted across multiple such deducted categories.

1.47 "**Net Sales**" means, with respect to any Product, the gross amounts invoiced by Catalyst or its Affiliates for the sale, transfer or other disposition of Product to unaffiliated Third Parties, less the following deductions to the extent reasonable and customary with respect to such sale, transfer or other disposition:

(a) reasonable cash, trade or quantity discounts, charge-back payments, and rebates actually granted to trade customers, managed health care organizations, pharmaceutical benefit managers, group purchasing organizations and national, state, or local government;

(b) credits, rebates or allowances actually allowed upon prompt payment or on account of claims, damaged goods, rejections or returns of such Product, including in connection with recalls;

(c) freight, postage, shipping, transportation and insurance charges, in each case actually allowed or paid for delivery of such Product, to the extent included in such invoice; and

(d) taxes (other than income taxes), duties, tariffs or other governmental charges levied on the sale of such Product, including VAT, exercises taxes and sales taxes, to the extent included in such invoice.

For purposes of determining Net Profits, a Product shall be deemed to be sold when consideration is received. Net Profits shall be accounted for in accordance with USA generally accepted accounting principles, consistently applied in such country in the Territory. For clarity, a particular deduction may only be accounted for once in the calculation of Net Profits.

1.48 "**Patents**" means, collectively, (a) pending patent applications (and patents issuing therefrom), issued patents, utility models and designs; and (b) reissues, substitutions,

confirmations, renewals, extensions, registrations, validations, re-examinations, additions, continuations, continued prosecution applications, continuations-in-part, divisionals, or any Supplementary Protection Certificates or restoration of patent terms of or to any patents, patent applications, utility models or designs, in each case being enforceable within the applicable territory.

1.49 "**Person**" means an individual, sole proprietorship, partnership, limited partnership, limited liability partnership, corporation, limited liability company, business trust, joint stock company, trust, unincorporated association, joint venture or other similar entity or organization, including a government or political subdivision, department or agency of a government.

1.50 "**Phase 1 Development Period**" means the period of time starting as of the Effective Date and continuing until the earlier of (i) the completion of the Phase 1 Study or (ii) such time as Catalyst may enter into a licensing agreement under Section 2.5.

1.51 "**Phase 1 Study**" means the Phase 1 clinical study of up to twenty four (24) hemophilia patients according to the protocol attached in Schedule 1.51.

1.52 "**Prior CDA**" means that certain Nondisclosure Disclosure Agreement between the Parties dated December 21, 2012.

1.53 "**Product**" means any product containing [* * *].

1.54 "**Product Marks**" has the meaning set forth in Section 9.8.

1.55 "**Registration Costs**" shall mean [* * *].

1.56 "**Regulatory Approval**" means all approvals necessary for the commercial sale of a Product in the Field in a given country or regulatory jurisdiction, which may include satisfaction of all applicable regulatory and notification requirements, and shall be deemed to include any stockpiling by any Governmental Authority for civilian or military use, but which shall exclude any pricing and reimbursement approvals.

1.57 "**Regulatory Authority**" means, in a particular country or jurisdiction, any applicable Governmental Authority involved in granting Regulatory Approval in such country or jurisdiction.

1.58 "**Regulatory Materials**" means regulatory applications, submissions, notifications, communications, correspondence, registrations, Regulatory Approvals and/or other filings made to, received from or otherwise conducted with a Regulatory Authority in order to Develop, manufacture, market, sell or otherwise Commercialize a Product in a particular country or jurisdiction.

1.59 "**Royalty Term**" is defined in Section 8.4.

1.60 "**Sublicensing Income**" means [* * *].

Confidential treatment has been sought for portions of this Agreement. The copy filed herewith omits the information subject to the confidential treatment request. Omissions are designated as * * *. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

1.61 "**Successful Phase I Study**" means the completion of the Phase I Study showing the feasibility of dosing with a single injection every two weeks.

1.62 "**Term**" has the meaning set forth in Section 13.1.

1.63 "**Territory**" means the entire world; except, in the instance that ISU is granted an exclusive Commercialization license under Section 2.4, Territory shall mean the entire world except Korea.

1.64 "**Third Party**" means any Person not including the Parties or the Parties' respective Affiliates.

1.65 "**USA**" means the United States of America, including all possessions and territories thereof.

1.66 "**Valid Claim**" means a claim of a Patent within the ISU Patent Rights or Catalyst Patent Rights, which claim is pending for no more than [* * *].

ARTICLE 2
LICENSES

2.1 License to ISU. Subject to the terms and conditions of this Agreement, Catalyst hereby grants to ISU during the Phase 1 Development Period, an exclusive, non-sublicensable, royalty-free license, under the Catalyst Technology, to conduct Clinical Development and Manufacturing Development and to Manufacture Products in the Field in the Territory. ISU shall not, and shall not permit any of its Affiliates to, use or practice any Catalyst Technology outside the scope of the license granted to it under this Section 2.1.

2.2 License to Catalyst. Subject to the terms and conditions of this Agreement, ISU hereby grants to Catalyst, after the Phase I Development Period, an exclusive, sublicenseable, royalty-bearing license, under the ISU Technology, to conduct Clinical Development and Manufacturing Development, to Manufacture and to Commercialize Products in the Field in the Territory. Catalyst shall not, and shall not permit any of its Affiliates or sublicensees to, use or practice any ISU Technology outside the scope of the license granted to it under this Section 2.1.

2.3 Third Party Licenses.

(a) The responsibility, necessity and handling of any Third Party license required as a result of the Development of the Product during the Phase 1 Development Period shall be agreed upon by the JSC. The corresponding costs shall be allocated as follows: [* * *].

(b) [* * *].

(c) [* * *].

2.4 Right of First Refusal. Subject to Section 8.1(b)(ii), if at any time during or after the Phase I Development Period, Catalyst desires to enter into a license agreement with any

Third Party to license the Catalyst Technology to Commercialize any Product in the Field in Korea, prior to entering into any such license agreement, Catalyst shall first notify ISU (the date of such notice, the "**ROFR Notice Date**"). If ISU so elects and provides notice to Catalyst within [* * *] of the ROFR Notice Date, Catalyst will grant to ISU an exclusive, fully-paid up, royalty-free, license, with the right to sublicense, under the Catalyst Technology to Commercialize Products in the Field in Korea (at ISU's cost and expense) and thereafter the definition of "Territory" shall exclude Korea. If ISU elects not to have Catalyst grant such license or fails to provide such notice to Catalyst within [* * *] of the ROFR Notice Date, except for royalty payment obligations under Section 8.2, Catalyst shall have no further obligation to ISU with respect to Commercialization rights for the Product in Korea for such territory. If ISU exercises its rights under this Section 2.4, (a) ISU shall use Commercially Reasonable Efforts to Commercialize Products in the Field in Korea and (b) [* * *].

2.5 Catalyst's ability to License the Catalyst Technology During the Phase 1 Development Period. Notwithstanding the exclusive license granted to ISU under Section 2.1, at any time during the Phase 1 Development Period and thereafter, Catalyst may license the Catalyst Technology to conduct Development, to Manufacture and to Commercialize Products in the Field in at least two of the following major markets: the USA, the European Union or Asia (but subject to Section 2.4 with respect to Korea). In the event that Catalyst enters into a license agreement pursuant to the prior sentence, then the Phase 1 Development Period shall immediately end, the license granted to ISU under Section 2.1 shall terminate, ISU's right of first refusal under Section 2.4 shall survive, [* * *]. Every [* * *] during the Phase 1 Development Period, Catalyst will provide a written report to the JLC describing Catalyst's activities and progress related to licensing the Catalyst Technology for such applicable [* * *].

2.6 Retained Rights. Except as explicitly set forth in this Agreement, neither Party shall be deemed by estoppel or implication to have granted the other Party any other licenses or other rights to any intellectual property.

2.7 Joint Ownership of Catalyst Patent Rights in Korea. Within [* * *] of the Effective Date, Catalyst shall and hereby does assign to ISU an ownership interest in and to the Catalyst Patent Rights in Korea resulting in [* * *] Parties having [* * *] ownership rights, title and interests in the Catalyst Patent Rights in Korea. Notwithstanding the foregoing: (a) Subject to Section 2.4, unless and until an Event of Bankruptcy in which Catalyst is the Bankrupt Party or the termination of this Agreement by ISU pursuant to Section 13.2, ISU shall have no right to practice the Catalyst Patent Rights in Korea after the Phase 1 Development Period; (b) in the event that (i) Catalyst provides notice under Section 2.4 and ISU does not exercise its rights to enter into a license under Section 2.4 or (ii) this Agreement is terminated (other than by ISU pursuant to Section 13.2), ISU shall and hereby does assign to Catalyst all of its right, title and interest in and to the Catalyst Patent Rights in Korea; (c) ISU shall have no right to transfer or assign to any Third Party its rights in and to the Catalyst Patent Rights in Korea, unless and until this Agreement is terminated by ISU pursuant to Section 13.2); and (d) this Section 2.5 shall not effect each Parties rights and obligations under Sections 9.3 and 9.4 and, during the Term, Catalyst shall have sole and exclusive control over the prosecution and maintenance of all Catalyst Patent Rights in Korea existing prior to the Effective Date. In the event that ISU is required to assign to Catalyst its right, title and interest in and to the Catalyst Patent Rights in Korea pursuant to subsection (b) above, ISU shall execute such documents reasonably required to do so and, in the event that Catalyst is

unable, after reasonable notice to ISU, for any reason whatsoever, to secure ISU's signature to any document ISU is required to execute pursuant to this Section 2.7, ISU hereby irrevocably designates and appoints Catalyst and its duly authorized officers and agents as ISU's agents and attorneys-in-fact, to act for and on its behalf and instead of ISU, to execute and file any such documents and to do all other lawfully permitted acts to further the purposes of Section 2.7 with the same legal force and effect as if executed by ISU.

ARTICLE 3
GOVERNANCE

3.1 Joint Steering Committee.

(a) Formation and Role. Within [* * *] after the Effective Date, the Parties shall establish a Joint Steering Committee (the "**Joint Steering Committee**" or "**JSC**") to facilitate the efficient and effective Clinical Development and Manufacturing Development of the Products and related intellectual property until the end of the Phase 1 Development Period . Specifically, the JSC will:

(i) coordinate and assist with the planning and execution of Development activities by each Party, which includes Clinical Development activities and Manufacturing Development activities by each Party;

(ii) review changes to the Development Plan, to confirm that any changes to the Development Plan are shall be consistent with the terms of this Agreement, and, consistent with Section 3.1(d)(iii); further, no changes to the Development Plan may be approved without mutual agreement of the Parties;

(iii) facilitate cooperation by the Parties in terms of the exchange of results, Information, Inventions, relating to or resulting from the Development activities under this Agreement during the Phase 1 Development Period (including, but not limited to, Manufacturing Information developed by ISU during the Phase 1 Development Period);

(iv) confer on matters relating to interactions with Regulatory Authorities; and

(v) determine, after evaluation of relevant data whether a Development Failure has occurred with respect to the Lead Candidate and, if so, selection of a replacement Compound for use as the Lead Candidate.

The purpose of the JSC is to facilitate and to assist the Parties, and the JSC shall not have the power to bind either of the Parties or to make any tactical or day-to-day operational decisions with respect to either Party's activities under this Agreement. Subject to the decision making provisions of Section 3.1(d), any decisions by the JSC must be provided to both Parties and receive final approval by both Parties in order to be final and binding on the Parties.

(b) Members. Each Party shall initially appoint [* * *] representatives to the JSC, each of whom shall be a senior officer or an employee of the applicable Party. At all times, the JSC shall have an equal number of representatives from both Parties. The JSC may change its

size from time to time by mutual consent of its current members and by both Parties; [* * *]. Each Party may unilaterally replace its representatives at any time upon written notice to the other Party specifying the prior representative(s) and their replacement(s). Either Party may designate substitutes for its representatives at a meeting, for the purpose of a attendance at that meeting, if one (1) or more of such Party's designated representatives is unable to be present at such meeting. The JSC shall have a chairperson, who shall be selected [* * *]. [* * *]. The term of each chairperson shall be one (1) year, and the term of each chair person shall be start on each anniversary of the Effective Date. The role of the chairperson shall be to convene and preside at the meeting of the JSC and to ensure the preparation of meeting minutes, but the chairperson shall have no additional powers or rights beyond those held by other JSC representatives.

(c) Meetings. The JSC shall meet at least [* * *] during the Phase 1 Development Period unless the Parties mutually agree in writing to a different frequency and schedule for such meetings. Either Party may also call a special meeting of the JSC (by videoconference or teleconference) by at least [* * *] prior written notice to the other Party in the event such Party reasonably believes that a significant matter must be addressed prior to the next regularly scheduled meeting, and such Party shall provide the JSC no later than [* * *] prior to the special meeting with materials reasonably adequate to enable an informed decision by both Parties as suggested by the JSC. No later than [* * *] prior to any meeting of the JSC, the chairperson of the JSC shall prepare and circulate an agenda for such meeting; provided, however, that either Party may propose additional topics to be included on such agenda, either prior to or in the course of such meeting. The JSC may meet in person, by videoconference or by teleconference, provided however, at least one (1) meeting per calendar year shall be in person unless the Parties mutually agree in writing to waive such requirement in lieu of a videoconference or teleconference. In-person JSC meetings shall be held at locations alternately selected by Catalyst and by ISU. The chairperson of the JSC shall be responsible for preparing reasonably detailed written minutes of all JSC meetings. The JSC chairperson shall send draft meeting minutes to each member of the JSC for review and approval within [* * *] after each JSC meeting. Such minutes shall be deemed approved unless one or more members of the JSC object to the accuracy of such minutes within [* * *] of receipt.

(d) Decision-Making; Limitations on JSC. Except as otherwise expressly provided in this Agreement, decisions of the JSC shall be made [* * *], with each Party having collectively one (1) vote in all decisions. The JSC shall have only such powers as are specifically delegated to it in this Agreement and such powers shall be subject to the terms and conditions set forth in this Agreement. Without limiting the generality of the foregoing, the JSC shall have no power to amend, modify, or waive compliance with this Agreement. If the JSC is unable to reach a [* * *] decision on a matter that is within its decision-making authority within [* * *] after it has met and attempted to reach such decision, then either Party may submit such matter for resolution to the Executive Officers in accordance with Section 14.2. If the Executive Officers are unable to resolve the issue due to which a decision is not able to be rendered in accordance with Section 14.2, then Catalyst shall hold the decision-making authority provided such decision does not impact ISU financially in a materially adverse way, and Catalyst considers in good faith the comments and suggestions of ISU when exercising its decision making authority. Notwithstanding the foregoing, in the event a dispute related to a decision of the JSC has not been resolved as set forth above:

[* * *].

(e) Termination of JSC. The JSC shall be terminated at the end of the Phase 1 Development Period.

3.2 Joint License Review Committee.

(a) Formation and Role. Within [* * *] after the Effective Date, the Parties shall establish a Joint License Committee (the "**Joint License Review Committee**" or "**JLC**") to facilitate the efficient and effective review of the licensing or other strategic business partnering of Products. Specifically, the JLC will, to the extent permitted by confidentiality agreements entered into by Catalyst or ISU with third parties:

(i) review the proposed terms and conditions of the license agreements negotiated by and between Catalyst and its potential licensees;

(ii) review the proposed license terms and conditions to confirm that such terms and conditions are consistent with the terms of this Agreement; and

(iii) if ISU is granted exclusive rights to Commercialize Products in the Field in Korea pursuant to Section 2.4, review the proposed terms and conditions of the license agreements negotiated by and between ISU and its potential licensees.

The purpose of the JLC is to facilitate the global licensing of the Products. The JLC shall not have the power to bind either of the Parties or to make any tactical or day-to-day operational decisions with respect to either Party's activities under this Agreement.

(b) Members. Each Party shall initially appoint [* * *] representatives to the JLC, each of whom shall be a senior officer or an employee of the applicable Party. At all times, the JLC shall have an equal number of members from both Parties. The JLC may change its size from time to time by mutual consent of its current members and by both Parties; however, at all times the JLC shall be comprised of equal members from each Party. Each Party may unilaterally replace its representatives at any time upon written notice to the other Party specifying the prior representative(s) and their replacement(s). Either Party may designate substitutes for its representatives at a meeting, for the purpose of attendance at that meeting, if one (1) or more of such Party's designated representatives is unable to be present at such meeting. The JLC shall have a chairperson, who shall be selected by Catalyst. The role of the chairperson shall be to convene and preside at the meeting of the JLC and to ensure the preparation of meeting minutes, but the chairperson shall have no additional powers or rights beyond those held by other JLC representatives.

(c) Meetings. The JLC shall meet [* * *] as negotiations between Catalyst at Third Party advance to final term sheets and draft agreements are exchanged. The JLC shall meet [* * *] during the Term, until the JLC is terminated pursuant to Section 3.2(d). Either Party may also call a meeting of the JLC (by videoconference or teleconference) by at least [* * *] prior written notice to the other Party in the event such Party reasonably believes that a significant matter must be addressed, and such Party shall provide the JLC no later than [* * *] prior to the meeting with materials reasonably adequate to enable an informed decision by both Parties as

suggested by the JLC. No later than [* * *] prior to any meeting of the JLC, the chairperson of the JLC shall prepare and circulate an agenda for such meeting; provided, however, that either Party may propose additional topics to be included on such agenda, either prior to or in the course of such meeting. The JLC may meet in person, by videoconference or by teleconference.

(d) Termination of JLC. The JLC shall be terminated at the earlier of (1) the end of the Term of this Agreement, (2) the date on which Catalyst enters (or has entered) into one or more licensing agreements which together account for the world-wide rights to the Products in the Field, (3) if the Phase 1 Study is not a Successful Phase 1 Study and, pursuant to Section 8.1(b), ISU elects not to make the milestone payment under Section 8.1(a)(4).

ARTICLE 4
CLINICAL DEVELOPMENT

4.1 Clinical Development Responsibility and Activities.

(a) During the Phase 1 Development Period.

(i) During the Phase 1 Development Period, ISU shall be responsible for and shall use Commercially Reasonable Efforts to (1) conduct Clinical Development of the Product in accordance with the Development Plan; and (2) the preparation and submission of Regulatory Materials for the Product in the Territory. ISU shall bear any and all costs and expenses of Clinical Development of the Product during the Phase 1 Development Period, including, without limitation, any and all costs and expenses incurred by the Parties to develop and support Regulatory Materials for the Product.

(1) Catalyst will, within [* * *] of the Effective Date, deliver to ISU the quantities of Compound, related Information, and other materials described in Schedule 4.1.

(2) ISU may conduct (A) in-vitro Confirmation Testing of the stock of Compound received from Catalyst within [* * *] of Catalyst's delivery of such material and (B) in vivo Confirmation Testing of the stock of Compound received from Catalyst within [* * *] of Catalyst's delivery of such material.

(a) If within such [* * *] period under subsection (A), the in vitro Confirmation Testing reveals a material discrepancy between the specifications listed on Schedule 1.13 and the Compound as delivered by Catalyst, the Parties shall [* * *] and thereafter the Agreement shall terminate pursuant to Section 13.4.

(b) If within such [* * *] period under subsection (B), the in vivo Confirmation Testing reveals a material discrepancy between the specifications listed on Schedule 1.13 and the Compound as delivered by Catalyst, if Catalyst so requests, the Parties shall [* * *] and thereafter the Agreement shall terminate pursuant to Section 13.4.

(3) If separately agreed to by the Parties, Catalyst will Manufacture additional stocks of Compound, at ISU's cost and expense.

(4) In the event that ISU Manufactures additional stocks of Compound ("**Replacement Compound**"), ISU will ensure that any such Replacement Compound meets the specifications listed on Schedule 1.13 and is otherwise functionally identical to the stocks of Compound provided by Catalyst.

(ii) ISU will achieve of all of the Clinical Development related Development Milestones according to the schedule detailed in the Development Plan.

(iii) Within [* * *] of the end of the Phase 1 Development Period, ISU will transfer to Catalyst, Catalyst's Affiliate or Catalyst's sublicensee, all Clinical Development related Information developed by ISU during the Phase 1 Development Period including without limitation, all non-clinical, pre-clinical and clinical data relating to the Product.

(iv) At Catalyst's request and upon the consideration and approval of the JSC (taking into account the impact such technology transfer would have on Catalyst's ability to timely license the Product), within [* * *], ISU will transfer to Catalyst, Catalyst's Affiliate or Catalyst's sublicensee, [* * *], all Manufacturing Development related Information and materials developed by ISU during the Phase 1 Development Period, including without limitation, all cell lines and clinical manufacturing process Information.

(b) After the Phase 1 Development Period. After the Phase 1 Development Period, Catalyst or its sublicensees, as applicable, shall be responsible for and shall use Commercially Reasonable Efforts to either (1) conduct Clinical Development and Manufacturing Development of the Product and Commercialize the Product in the Territory or (2) sublicense the Product. Catalyst or its sublicensees, as applicable, shall bear any and all costs and expenses of Development of the Product after the Phase 1 Development Period, including, without limitation, any and all costs and expenses incurred by the Parties to develop and support Regulatory Materials (including any NDAs) for the Product or costs and expenses to sublicense the Product.

4.2 Clinical Development Plan.

(a) Attached hereto as Schedule 1.19 is the initial Development Plan, setting forth [* * *].

(b) From time to time throughout the Phase 1 Development Period, either Party may propose to the JSC that the Development Plan be revised to reflect additional or different activities which are appropriate in light of prior Development by giving notice to the other Party; provided, however, that such revised Development Plan must be commercially reasonable and approved by the JSC. For clarity, each Party must agree to any change in Development Milestones or any changes to the expected completion dates of the Development Milestones.

4.3 Records and Reports. Each Party shall maintain complete, current and accurate records of all work conducted by it, its Affiliates or sublicensees under the Development Plan, all Information and Inventions resulting from such work. Each Party shall provide written reports to the JSC on its Development of the Product at each JSC meeting. Each report shall include the Development activities accomplished by or on behalf of such Party since the previous JSC meeting, and as an example they may include without limitation a summary of significant Information generated, significant challenges anticipated and updates regarding significant

intellectual property issues relating to the Product, and (b) near-term planned Development activities to be conducted and follow-up items to be addressed. Upon reasonable request by a Party, the other Party shall provide the requesting Party with additional Information with respect to the material experimental data underlying such summary, summaries of available clinical protocols, investigator brochures, regulatory submissions and correspondence from Regulatory Authorities with respect to the Product (including without limitation the Manufacture of the Product). Upon either Party's request, the JSC members shall meet to discuss any aspects of such reports within a reasonable time period after such request.

ARTICLE 5
REGULATORY MATTERS

5.1 Regulatory Activities. Catalyst or its sublicensees shall be responsible for submitting the INDs and NDAs in the Territory for all indications for the Product, except that ISU shall be responsible for all INDs and other necessary regulatory filings (e.g. annual reports), during the Phase 1 Development Period. As between the Parties, Catalyst shall own all right, title and interest in all INDs and other regulatory filings designed to obtain or support Regulatory Approval in the Territory.

5.2 Regulatory Reports. During the Phase 1 Development Period and if ISU has exercised its right of first refusal pursuant to Section 2.4, (a) each Party shall keep the other Party informed of material regulatory developments relating to Products in the Territory and (b) each Party shall [* * *] notify the other of any material Regulatory Materials (other than routine correspondence) submitted to or received from any Regulatory Authority and shall provide ISU with copies thereof within [* * *] after submission or receipt.

5.3 Regulatory Costs. [* * *].

5.4 Notification of Threatened Action. During the Phase 1 Development Period and if ISU has exercised its right of first refusal pursuant to Section 2.4, each Party shall [* * *] notify the other Party of any information it receives regarding any threatened or pending action, inspection or communication by or from any Third Party, including a Regulatory Authority, which may materially affect the Development, Commercialization or regulatory status of a Product. Upon receipt of such information, [* * *].

5.5 Adverse Event Reporting and Safety Data Exchange. If ISU has exercised its rights pursuant to Section 2.4, no later than [* * *] after the filing of the first NDA for the Product, Catalyst or Catalyst's sublicensee(s) (if applicable) and ISU shall enter into a commercially reasonable pharmacovigilance agreement (the "**Pharmacovigilance Agreement**"). The Pharmacovigilance Agreement shall include customary guidelines and procedures for the receipt, investigation, recordation, communication, and exchange (as between the Parties) of adverse event reports, pregnancy reports, and any other information concerning the safety of any Product. Such guidelines and procedures shall be in accordance with, and enable the Parties to fulfill, local and national regulatory reporting obligations under applicable Laws. Furthermore, such agreed procedure shall be consistent with relevant guidelines of the International Conference on Harmonisation, except where such guidelines may conflict with existing local regulatory reporting or safety reporting requirements, in which case the local reporting requirements shall

prevail. The Pharmacovigilance Agreement shall provide for an adverse event database for Products in the Territory to be maintained by Catalyst or its sublicensee at its expense. Catalyst or its sublicensee shall be responsible for reporting quality complaints, adverse events and safety data related to Products to applicable Regulatory Authorities in the Territory, as well as responding to safety issues and to all requests of Regulatory Authorities relating to Products in the Territory. Each Party hereby agrees to comply with its respective obligations under such Pharmacovigilance Agreement and to cause its Affiliates and permitted sublicensees to comply with such obligations.

5.6 Remedial Actions. If ISU has exercised its rights pursuant to Section 2.4, each Party shall notify the other Party immediately, and promptly confirm such notice in writing, if it obtains information indicating that any Product may be subject to any recall, corrective action or other regulatory action with respect to a Product taken by virtue of applicable Laws (a "**Remedial Action**"). The Parties shall assist each other in gathering and evaluating such information as is necessary to determine the necessity of conducting a Remedial Action. Catalyst shall, and shall ensure that its Affiliates and sublicensees will, maintain adequate records to permit the Parties to trace the distribution and use of the Products. Catalyst or its sublicensee, as applicable, shall have the right to decide whether any Remedial Action with respect to Products in the Field and in the Territory should be commenced and Catalyst or its sublicensee, as applicable, shall have the obligation, at its expense, to control and coordinate all efforts necessary to conduct such Remedial Action for the Field and in the Territory, except [* * *].

ARTICLE 6
COMMERCIALIZATION

6.1 Commercialization Responsibilities. During the Term and subject to ISU's rights under Section 2.4, Catalyst or its sublicensees shall be responsible for all aspects of the Commercialization of each Product in the Field in the Territory, including using Commercially Reasonable Efforts to: (i) develop and execute a commercialization plan, (ii) negotiate with applicable Governmental Authorities regarding the price and reimbursement status of Products; (iii) market and promotion; (iv) booking sales and distribution and performance of related services; (v) handling all aspects of order processing, invoicing and collection, inventory and receivables; (vi) providing customer support, including handling medical queries, and performing other related functions; and (vii) conforming its practices and procedures to Applicable Laws relating to the marketing, detailing and promotion of Products in the Territory. Catalyst or its sublicensee shall have decision-making authority and bear all of the costs and expenses incurred in connection with such Commercialization activities. Consistent with Section 2.3, Catalyst may enter into agreements with Third Parties to license Commercialization rights to the Product or otherwise strategically partner the Product to facilitate Commercialization in the Territory.

ARTICLE 7
MANUFACTURE AND SUPPLY

7.1 Manufacturing Responsibilities.

(a) During the Phase 1 Development Period.

(i) During the Phase 1 Development Period, ISU shall be responsible, at ISU's cost and expense, for all aspects of the Manufacture of Products for use in Clinical Development during the Phase 1 Development Period and shall use Commercially Reasonable Efforts to conduct Manufacturing Development of the Product in accordance with the Development Plan. ISU shall bear any and all costs and expenses of Manufacturing Development of the Product during the Phase 1 Development Period, including, without limitation, costs for the initial engineering, process development, scale-up, validation, testing and establishment of commercial Manufacturing processes for candidate Products.

(ii) ISU will apply its best efforts to achieve of all of the Manufacturing Development related Development Milestones according to the schedule detailed in the Development Plan.

(iii) In addition to the transfer obligations under Section 4.1(a), within [* * *] after the end of the Phase 1 Development Period, ISU will transfer to Catalyst, Catalyst's Affiliate or Catalyst's sublicensee, (1) all Manufacturing related Information and materials (including the Enabled Cell Lines) developed by ISU during the Phase 1 Development Period including all Information pertaining to process development, scale-up, validation, testing and establishment of Commercial Manufacturing processes for any Product and (2) any Product material that has been manufactured by ISU and which is not required to be retained by ISU for testing or reference standard purposes. The rights to any and all materials and Information pertaining to the Enabled Cell Lines shall remain, subject to Section 2.2, in the full ownership of ISU. Catalyst may and may seek ISU's assistance in transferring such ISU developed Information and materials (including the Enabled Cell Lines) to a sublicensee to assist with such sublicensee's Development and Commercialization of the Product.

(b) After the Phase 1 Development Period. After the Phase 1 Development Period, Catalyst or its sublicensee shall be responsible for and shall use Commercially Reasonable Efforts to (1) Manufacture Products for Clinical Development of the Product and (2) Manufacture Products for Commercialization in the Territory. Catalyst or its sublicensee shall bear all of the costs and expenses incurred in connection with such Manufacturing activities. Consistent with Section 2.3., Catalyst or it sublicensee may enter into agreements with Third Parties to license Manufacturing rights to the Product to facilitate the supply of Products for Clinical Development and Commercialization of the Product.

Confidential treatment has been sought for portions of this Agreement. The copy filed herewith omits the information subject to the confidential treatment request. Omissions are designated as * * *. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

ARTICLE 8
COMPENSATION

8.1 Development Milestone Payments.

(a) ISU shall make each of the following non-refundable, non-creditable milestone payments to Catalyst upon the achievement of the following milestone events. ISU shall pay to Catalyst each such amount within [* * *]. [* * *].

[* * *]

(b) In the event the Phase 1 Study is not a Successful Phase 1 Study, ISU will have [* * *] after such determination to decide whether to pay to Catalyst the [* * *] milestone payment under [* * *].

(i) In the event that ISU elects to pay the milestone payment under [* * *], each Party's obligations under this Agreement shall continue, including without limitation, Catalyst's obligations with respect to the Development and Commercialization of the Product and Catalyst's obligations to make royalty and Sublicensing Income payments under Sections 8.2 and 8.3, respectively.

(ii) In the event that ISU elects not to pay the milestone payment under [* * *], Catalyst shall have no further obligation to Develop or Commercialize the Product [* * *], and ISU's rights under Section 2.4 shall terminate; *provided, however*, should Catalyst or its sublicensee thereafter continue to Develop and Commercialize the Product:

(1) Catalyst shall make each of the following non-refundable, non-creditable milestone payments to ISU upon the achievement of the following milestone events. Catalyst shall pay to ISU each such amount within [* * *]. [* * *].

[* * *]

(2) During the Royalty Term, on a country-by-country basis, Catalyst shall pay to ISU non-refundable, non-creditable royalties equal to [* * *].

8.2 Royalties

(a) Royalty Rates. During the Royalty Term, on a country-by-country basis, Catalyst shall pay to ISU non-refundable, non-creditable royalties equal to [* * *] of the Net Profits of all Products in each country in the Territory. To the extent the calculation of Net Profits results in a negative number (i.e., a loss) for the applicable reporting period, then while ISU will not be required to pay to Catalyst any share of such loss, Catalyst shall be entitled to carry forward all such losses, through one (1) or more subsequent accounting periods, until the entire amount of such losses (including any that are suffered in a subsequent accounting period) is exhausted.

(b) Royalty Reports and Payments. Within [* * *] following the end of each [* * *], commencing with the [* * *] in which the First Commercial Sale of any Product is made anywhere in the Territory, Catalyst shall provide ISU with a written report containing the following information for the applicable calendar quarter, on a country-by-country and Product-by-Product basis: (i) the amount of gross sales of Product in the Territory, (ii) an itemized calculation of Net Profits in the Territory showing deductions provided for in the definition of "Net Profits," and (iii) a calculation of the royalty payment due on such Net Profits, (iv) the exchange rate for such country. Concurrent with the delivery of the applicable [* * *] report, Catalyst shall pay in Dollars all amounts due to ISU pursuant to Section 8.2 with respect to Net Profits by Catalyst or its Affiliates for such [* * *]. Catalyst will be required to provide the above report on a [* * *] basis, regardless of the amount and/or level of sales in a particular [* * *].

Confidential treatment has been sought for portions of this Agreement. The copy filed herewith omits the information subject to the confidential treatment request. Omissions are designated as * * *. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

8.3 Sublicensing Income. If Catalyst or its Affiliates receives payments from a sublicensee in connection with the sublicense of any of the rights granted to Catalyst under Section 2.2, Catalyst shall pay to ISU a sum equal to [* * *] of Sublicensing Income. All payments under this Section 8.3 shall be made within [* * *] following Catalyst's receipt of payments from the sublicensee. The Sublicensing Income shall be reported in writing by Catalyst to ISU on a [* * *] basis, subject to the reporting requirements of Section 8.2(b) above.

8.4 Royalty Term. Royalties under Section 8.1(b)(ii)(2) or Section 8.2 and Sublicensing Income payments under Section 8.3 shall be due during the period of time beginning, on a country-by-country basis, from the First Commercial Sale of a Product in such country until the earlier of (i) the last to expire Valid Claim in such country and (ii) fifteen (15) years after the First Commercial Sale of a Product in such country (the "**Royalty Term**"). Notwithstanding the foregoing, to the extent that Catalyst negotiates a royalty term for which Catalyst is paid royalties under a sublicense agreement which is longer than the Royalty Term described in the preceding sentence, the Royalty Term be extended until the end of the relevant sublicense royalty term.

8.5 Foreign Exchange. The rate of exchange to be used in computing the amount of currency equivalent in Dollars of Net Profits and Sublicensing Income invoiced in other currencies shall be made at [* * *].

8.6 Payment Method; Late Payments. All payments due to either Party hereunder shall be made in Dollars by wire transfer of immediately available funds into an account in the USA designated by such Party. If a Party does not receive payment of any sum due to it on or before the due date, [* * *].

8.7 Records. Catalyst and its Affiliates and licensees and sublicensees shall maintain complete and accurate records in sufficient detail to permit ISU to confirm the accuracy of the calculation of royalty payments and/or Sublicensing Income payments. ISU shall have the right to audit such records in accordance with Section 8.8.

8.8 Audits. For a period of [* * *] from the end of the calendar year in which a payment was due hereunder, upon [* * *] prior notice, each Party (the "**Audited Party**") shall (and shall require that its Affiliates) make such records relating to such payment available, during regular business hours and not more often than [* * *], for examination by an independent certified public accountant selected by the other Party (the "**Auditing Party**") and reasonably acceptable to the Audited Party, for the purposes of verifying compliance with this Agreement and the accuracy of the financial reports and/or invoices furnished pursuant to this Agreement. The results of any such audit shall be shared by the auditor with both Parties and shall be considered Confidential Information of both Parties. Any amounts shown to be owed by either Party to the other shall be paid within [* * *] from the auditor's report, plus interest (as set forth in Section 8.5) from the original due date. The Auditing Party shall bear the full cost of such audit unless such audit discloses a deficiency in the Audited Party's payments of greater than [* * *], in which case the Audited Party shall bear the full cost of such audit.

8.9 Taxes.

(a) Taxes on Income. Each Party shall be solely responsible for the payment of all taxes imposed on its share of income arising directly or indirectly from the efforts of the Parties under this Agreement.

(b) Tax Cooperation. The Parties agree to cooperate with one another and use reasonable efforts to reduce or eliminate tax withholding or similar obligations in respect of

royalties, milestone payments, and other payments made by one Party to the other under this Agreement. To the extent either Party is required to deduct and withhold taxes on any payment to the other Party, such Party (the "**Paying Party**") shall pay the amounts of such taxes to the proper Governmental Authority in a timely manner and promptly transmit to the other Party (the "**Receiving Party**") an official tax certificate or other evidence of such withholding sufficient to enable Receiving Party to claim such payment of taxes. The Receiving Party shall provide Paying Party any tax forms that may be reasonably necessary in order for Paying Party not to withhold tax or to withhold tax at a reduced rate under an applicable bilateral income tax treaty. Each Party shall provide the other with reasonable assistance to enable the recovery, as permitted by applicable Laws, of withholding taxes, value added taxes, or similar obligations resulting from payments made under this Agreement, such recovery to be for the benefit of the Party bearing such withholding tax or value added tax.

ARTICLE 9
INTELLECTUAL PROPERTY MATTERS

9.1 Disclosure. Each Party shall promptly disclose to the other Party any Inventions that it or its Affiliates or sublicensees or their employees, independent contractors, or agents solely or jointly make, conceive, reduce to practice, or otherwise discover.

9.2 Ownership of Inventions.

(a) Inventorship. As between the Parties, [* * *].

(b) Joint Ownership. Except as expressly provided in this Agreement, it is understood that neither Party will have any obligation to obtain any approval or consent of, nor pay a share of the proceeds to or account to, the other Party to practice, enforce, license, assign or otherwise exploit Inventions or intellectual property owned jointly by the Parties hereunder, and each Party hereby waives any right it may have under the laws of any jurisdiction to require such approval, consent or accounting. Each Party agrees to cooperate with the other Party, as reasonably requested, and to take such actions as may be required to give effect to this Section 9.2(b) in a particular country, including by promptly executing and recording assignments and other documents consistent with such ownership. [* * *].

9.3 Prosecution of Patents.

(a) Catalyst Prosecuted Patents.

(i) Subject to Section 9.3(a)(ii) below, as between the Parties, Catalyst (or Catalyst's sublicensee) shall have the first right to prepare, file, prosecute and maintain the Patents claiming Inventions ("**Collaboration Patents**") in the Territory. Catalyst shall provide ISU with copies of all material communications from any patent office or similar patent authority regarding the Collaboration Patents and shall provide ISU with copies of any material filings or responses to be made to such patent offices or similar patent authorities.

(ii) If Catalyst (or Catalyst's sublicensee) decides to cease the prosecution or maintenance of any Collaboration Patent, it shall notify ISU in writing [* * *] so that ISU may, at its discretion, assume the responsibility for the prosecution or maintenance of

such Patent, [* * *], provided that ownership of any such Collaboration Patent shall remain with Catalyst (or Catalyst's sublicensee, as applicable). If ISU assumes such responsibility, ISU shall provide Catalyst with copies of all material communications from any patent office or similar patent authority regarding such Collaboration Patent and shall provide Catalyst (reasonably in advance of submission) with drafts of any material filings or responses to be made to such patent offices or similar patent authorities. ISU shall consider in good faith any reasonable comments thereto provided by Catalyst (or Catalyst's sublicensee) to the extent applicable to the Products in the Field. ISU shall use Commercially Reasonable Efforts to obtain the broadest claim coverage for such Collaboration Patent.

(b) Cooperation. Each Party shall provide the other Party all reasonable assistance and cooperation, at the other Party's request and expense, in the patent prosecution efforts provide above in this Section 9.3, including providing any necessary powers of attorney and executing any other required documents or instruments for such prosecution.

(c) Prosecution Costs. [* * *].

9.4 Enforcement of Product Patents.

(a) Notification. If either Party becomes aware of any existing or threatened infringement of the Collaboration Patents, or Catalyst Patents relating to the Products or ISU Patents relating to Products (collectively the "**Product Patents**") in the Territory, which infringing activity involves the using, making, importing, offering for sale or selling Products or a competitive product or otherwise adversely affects or is reasonably expected to adversely affect the Commercialization of any Product in the Territory, it shall promptly notify the other Party in writing to that effect and the Parties shall consult with each other regarding any actions to be taken with respect to such infringement.

(b) Actions Controlled by [* * *]. Except as provided in Section 9.4(c), [* * *] shall have the first right, but not the obligation, to bring an appropriate suit or take other action against any Third Party engaged in any infringement of the Product Patents ("**Infringement**"), [* * *]. However, if [* * *] requests that [* * *] participate in the sharing of such costs and expenses and if [* * *] agrees, then [* * *]. [* * *].

(c) Other Infringement.

(i) With respect to any infringement of the [* * *] anywhere in the world other than Infringement, [* * *] shall have the exclusive right, but not the obligation, to prevent or abate such infringement and, as between the Parties, [* * *] shall bear all related expenses and retain all related recoveries. In that case, [* * *] shall notify [* * *] of such infringement and keep [* * *] reasonably informed with respect to the disposition of any action taken in connection therewith.

(ii) With respect to any infringement of the[* * *] anywhere in the world other than Infringement, [* * *] shall have the exclusive right, but not the obligation, to prevent or abate such infringement and, as between the Parties, [* * *] shall bear all related expenses and retain all related recoveries. In that case, [* * *] shall notify [* * *] of such infringement and keep [* * *] reasonably informed with respect to the disposition of any action taken in connection therewith.

(d) Collaboration. Each Party shall provide to the enforcing Party reasonable assistance in such enforcement, at such enforcing Party's request and expense, including joining such action as a party plaintiff if required by applicable Laws to pursue such action. The enforcing Party shall keep the other Party regularly informed of the status and progress of such enforcement efforts, shall reasonably consider the other Party's comments on any such efforts, provided the enforcing Party shall have all decision making authority with respect to all aspects of such enforcement, including determination of litigation strategy and filing of material papers to the competent court. The non-enforcing Party shall be entitled to separate representation in such matter by counsel of its own choice and at its own expense, but such Party shall at all times cooperate fully with the enforcing Party.

(e) Expenses and Recoveries. The term "**Revenue**" includes all fees, minimum royalties, payments, compensation, or consideration of any kind, including without limitation in-kind payments, forbearance in connection with settlement, equity amounts taken in lieu of cash, or discounts below fair market value of equity received by either Party or its Affiliates.

(i) If [* * *] has not agreed to participate in the costs and expenses of a claim, suit or action pursuant to Section 9.4(b), the costs and expenses in bringing such claim, suit or action shall be borne [* * *] and, if [* * *] receives Revenue in such claim, suit or action, such Revenue shall be allocated first to the reimbursement of any expenses incurred by the Parties in such litigation (including, for this purpose, a reasonable allocation of expenses of internal counsel), and any remaining amounts shall be retained by [* * *].

(ii) If [* * *] has agreed to participate in the costs and expenses of a claim, suit or action pursuant to Section 9.4(b), the costs and expenses in bringing such claim, suit or action shall be borne [* * *]. [* * *] shall invoice [* * *] for [* * *]'s share of any such costs and expenses, and payments shall e due within [* * *] of receipt of such invoice. If the enforcing Party receives Revenue in such claim, suit or action, such Revenue shall be allocated first to the reimbursement of any expenses incurred by the Parties in such litigation (including, for this purpose, a reasonable allocation of expenses of internal counsel), and any remaining amounts shall be allocated as follows: [* * *].

9.5 Patents Licensed From Third Parties. Each Party's rights under this Article 9 with respect to the prosecution, maintenance and enforcement of any [* * *] that is licensed by [* * *] from a Third Party shall be subject to the rights of such Third Party to prosecute, maintain and enforce such Patent.

9.6 Infringement of Third Party Rights in the Territory. Subject to Article 11, if any Product used or sold by [* * *], its Affiliates or licensees or sublicensees becomes the subject of a Third Party's claim or assertion of infringement of a Patent granted by a jurisdiction within the Territory, [* * *] shall promptly notify [* * *] and the Parties shall agree on and enter into a "common interest agreement" wherein the Parties agree to their shared, mutual interest in the outcome of such potential dispute, and thereafter, the Parties shall promptly meet to consider the claim or assertion and the appropriate course of action. [* * *].

Confidential treatment has been sought for portions of this Agreement. The copy filed herewith omits the information subject to the confidential treatment request. Omissions are designated as * * *. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

9.7 Patent Marking. Catalyst and its Affiliates and sublicensees shall mark each Product marketed and sold by Catalyst or its Affiliates or sublicensees hereunder with appropriate patent numbers or indicia; provided, however, that Catalyst shall only be required to so mark such Product to the extent such markings or such notices would affect recoveries of damages or equitable remedies available under applicable Laws with respect to infringement of Patents in the Territory.

9.8 Trademarks. Catalyst (and Catalyst's sublicensee(s)) shall have the right to brand the Products in the Territory using Catalyst related trademarks and any other trademarks and trade names it determines appropriate for the Products, which may vary by country or within a country ("**Product Marks**").

ARTICLE 10
REPRESENTATIONS AND WARRANTIES; COVENANTS

10.1 Mutual Representations and Warranties. Each Party hereby represents and warrants to the other Party as follows:

(a) Corporate Existence. As of the Effective Date, it is a company or corporation duly organized, validly existing, and in good standing under the Laws of the jurisdiction in which it is incorporated.

(b) Corporate Power, Authority and Binding Agreement. As of the Effective Date or the date of any required approval by its shareholders, (i) it has the power and authority and the legal right to enter into this Agreement and to perform its obligations hereunder; (ii) it has taken all necessary action on its part required to authorize the execution and delivery of this Agreement and the performance of its obligations hereunder; and (iii) this Agreement has been duly executed and delivered on behalf of such Party, and constitutes a legal, valid and binding obligation of such Party that is enforceable against it in accordance with its terms.

(c) No Conflict. The execution and delivery of this Agreement and the performance of such Party's obligations hereunder do not, in any material respect, conflict with, violate, or breach or constitute a default or require any consent that has not been obtained under any contractual obligation or court or administrative order by which such Party is bound.

(d) Title; Encumbrances. [* * *];

(e) No Proceeding. [* * *].

(f) Patents. [* * *].

10.2 Mutual Covenants.

(a) No Debarment. In the course of the Development of the Product, each Party shall not use any employee or consultant who has been debarred by any Regulatory

Authority, or, to such Party's knowledge, is the subject of debarment proceedings by a Regulatory Authority. Each Party shall notify the other Party promptly upon becoming aware that any of its employees or consultants has been debarred or is the subject of debarment proceedings by any Regulatory Authority.

(b) Compliance. Each Party and its Affiliates shall comply in all material respects with all applicable Laws in the Development and Commercialization of Products and performance of its obligations under this Agreement, including the statutes, regulations and written directives of the FDA, the EMA and any Regulatory Authority having jurisdiction in the Territory, the FD&C Act, the Prescription Drug Marketing Act, the Federal Health Care Programs Anti-Kickback Law, 42 USAC. 1320a-7b(b), the statutes, regulations and written directives of Medicare, Medicaid and all other health care programs, as defined in 42 USAC. § 1320a-7b(f), and the Foreign Corrupt Practices Act of 1977, each as may be amended from time to time.

10.3 Disclaimer. Each Party understands that the Compound and Products are the subject of ongoing clinical research and development and that the other Party cannot assure the safety or efficacy of any Compound or Product. In addition, neither Party makes any warranties except as set forth in this Article 10 with respect to the Catalyst Technology or ISU Technology, as applicable. EXCEPT AS EXPRESSLY STATED IN THIS AGREEMENT, NO REPRESENTATIONS OR WARRANTIES WHATSOEVER, WHETHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT, OR NON-MISAPPROPRIATION OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS, ARE MADE OR GIVEN BY OR ON BEHALF OF A PARTY, AND ALL REPRESENTATIONS AND WARRANTIES, WHETHER ARISING BY OPERATION OF LAW OR OTHERWISE, ARE HEREBY EXPRESSLY EXCLUDED.

ARTICLE 11
INDEMNIFICATION

11.1 Indemnification by Catalyst. Catalyst shall indemnify and hold harmless ISU, and its directors, officers, employees, agents, Affiliates and contractors (collectively, the "**ISU Indemnitees**"), from and against all losses, liabilities, damages and expenses, including reasonable attorneys' fees and costs (collectively, "**Liabilities**"), resulting from any claims, demands, actions or other proceedings by any Third Party ("**Claims**") to the extent resulting from (a) the breach of any representation, warranty or covenant by Catalyst under this Agreement or (b) the negligence or willful misconduct of Catalyst or its agents, Affiliates and contractors. The foregoing indemnity obligation shall not apply to the extent that (i) the ISU Indemnitees fail to comply with the indemnification procedures set forth in Section 11.3 and Catalyst's defense of the relevant Claims is prejudiced by such failure, or (ii) any Claim arises from, is based on, or results from any activity set forth in Section 11.2(a), or 11.2(b) for which ISU is obligated to indemnify the Catalyst Indemnitees under Section 11.2.

11.2 Indemnification by ISU. ISU shall indemnify and hold harmless Catalyst, and its directors, officers, employees, agents, Affiliates and contractors (collectively, the "**Catalyst Indemnitees**"), from and against all Liabilities resulting from any Claims to the extent resulting from (a) the breach of any representation, warranty or covenant by ISU under this

Agreement, or (b) the negligence or willful misconduct of ISU or its agents, Affiliates and contractors. The foregoing indemnity obligation shall not apply to the extent that (i) the Catalyst Indemnitees fail to comply with the indemnification procedures set forth in Section 11.3 and ISU's defense of the relevant Claims is prejudiced by such failure, or (ii) any Claim arises from, is based on, or results from any activity set forth in Section 11.1(a) or 11.1(b) for which Catalyst is obligated to indemnify the ISU Indemnitees under Section 11.1.

11.3 Indemnification Procedures. The Party claiming indemnity under this Article 11 (the "**Indemnified Party**") shall give written notice to the Party from whom indemnity is being sought (the "**Indemnifying Party**") promptly after learning of such Claim. The Indemnifying Party shall have the right to assume and conduct the defense of the Claim with counsel of its choice, and the Indemnified Party may participate in and monitor such defense with counsel of its own choosing at its sole expense. The Indemnified Party shall provide the Indemnifying Party with reasonable assistance, at the Indemnifying Party's expense, in connection with the defense of the Claim for which indemnity is being sought. Each Party shall not settle or compromise any Claim without the prior written consent of the other Party, which consent shall not be unreasonably withheld, delayed or conditioned. If the Parties cannot agree as to the application of the foregoing Sections 11.1 and 11.2, each may conduct separate defenses of the Claim, and each Party reserves the right to claim indemnity from the other in accordance with this Article 11 upon the resolution of the underlying Claim.

11.4 Limitation of Liability. NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, PUNITIVE, OR INDIRECT DAMAGES ARISING FROM OR RELATING TO ANY BREACH OF THIS AGREEMENT, REGARDLESS OF ANY NOTICE OF THE POSSIBILITY OF SUCH DAMAGES. NOTWITHSTANDING THE FOREGOING, NOTHING IN THIS SECTION 11.4 IS INTENDED TO OR SHALL LIMIT OR RESTRICT THE INDEMNIFICATION RIGHTS OR OBLIGATIONS OF ANY PARTY UNDER SECTION 11.1 OR 11.2, OR DAMAGES AVAILABLE FOR A PARTY'S BREACH OF CONFIDENTIALITY OBLIGATIONS IN ARTICLE 12.

11.5 Insurance. Each Party shall, at all times during the Term of this Agreement, obtain and maintain at its own expense the following types of insurance, with limits of liability not less than those specified below:

(a) Commercial general liability insurance against claims for bodily injury and property damage which shall include contractual coverage, with limits of not less than [* * *] per occurrence and in the aggregate.

(b) Clinical studies and product liability insurance with bodily injury death and property damage limits of not less than [* * *] per occurrence and in the aggregate.

(c) Workers compensation and employers' liability with limits to comply with the statutory requirements of the state(s) in which the Agreement is to be performed. The policy shall include employers' liability for not less than [* * *] per accident.

All policies shall be issued by insurance companies with [* * *]. Each Party shall deliver certificates of insurance evidencing coverage to the other Party promptly after the execution of this Agreement and [* * *] thereafter. All policies provided for herein shall expressly provide that such policies shall not be cancelled, terminated or altered without at least [* * *] prior written notice to the insured Party, and each insuring party shall immediately notify the insured party in the event that a policy provided for herein is cancelled, terminated or altered.

ARTICLE 12
CONFIDENTIALITY

12.1 Confidentiality. During the Term and for a period of [* * *] thereafter, each Party shall maintain all Confidential Information of the other Party in trust and confidence and shall not, without the written consent of the other Party, disclose any Confidential Information of the other Party to any Third Party or use any Confidential Information of the other Party for any purpose other than as provided in this Agreement. The confidentiality obligations of this Section 12.1 shall not apply to Confidential Information to the extent that the receiving Party can establish by competent evidence that such Confidential Information: (a) is publicly known prior or subsequent to disclosure without breach of confidentiality obligations by such Party or its employees, consultants or agents; (b) was in such Party's possession at the time of disclosure without any restrictions on further disclosure; (c) is received by such receiving Party, without any restrictions on further disclosure, from a Third Party who has the lawful right to disclose it, or (d) is independently developed by employees or agents of the receiving Party who had no access to the disclosing Party's Confidential Information.

12.2 Authorized Disclosure. Nothing herein shall preclude a Party from disclosing the Confidential Information of the other Party to the extent:

(a) such disclosure is reasonably necessary (i) for the filing or prosecuting of Patents as contemplated by this Agreement; (ii) to comply with the requirement of Regulatory Authorities with respect to obtaining and maintaining Regulatory Approval (or any pricing and reimbursement approvals) of a Product; or (iii) for prosecuting or defending litigations as contemplated by this Agreement;

(b) such disclosure is reasonably necessary to its employees, agents, consultants, contractors, licensees or sublicensees on a need-to-know basis for the sole purpose of performing its obligations or exercising its rights under this Agreement; provided that in each case, the disclosees are bound by written obligations of confidentiality and non-use consistent with those contained in this Agreement;

(c) such disclosure is reasonably necessary to any bona fide potential or actual investor, acquiror, merger partner, sublicensee or other financial or commercial partner for the sole purpose of evaluating an actual or potential investment, acquisition, sublicense or other business relationship; provided that in connection with such disclosure, such Party shall use all reasonable efforts to inform each disclosee of the confidential nature of such Confidential Information and cause each disclosee to treat such Confidential Information as confidential;

(d) such disclosure is reasonably necessary to comply with applicable Laws, including regulations promulgated by applicable security exchanges, a valid order of a court of competent jurisdiction, administrative subpoena or order.

Notwithstanding the foregoing, in the event a Party is required to make a disclosure of the other Party's Confidential Information pursuant to Section 12.2(a) or 12.2(d), such Party shall promptly notify the other Party of such required disclosure and shall use reasonable efforts to obtain, or to assist the other Party in obtaining, a protective order preventing or limiting the required disclosure.

12.3 Return of Confidential Information. Promptly after the termination or expiration of this Agreement for any reason, each Party shall return to the other Party all tangible manifestations including, but not limited to, all written materials of such other Party's Confidential Information at that time in the possession of the receiving Party.

12.4 Publicity; Terms of the Agreement.

(a) The Parties agree that the material terms of this Agreement (including without limitation any exhibits hereto) shall be considered "**Confidential Information**" of each Party, subject to the special authorized disclosure provisions set forth in Section 12.2 and this Section 12.3.

(b) The Parties have agreed to issue a joint press release in the form attached as Schedule 12.4 on or promptly after the Effective Date. After release of such press release, if either Party desires to make a public announcement concerning the material terms of this Agreement, such Party shall give reasonable prior advance notice of the proposed text of such announcement to the other Party for its prior review and approval (except as otherwise provided herein), such approval not to be unreasonably withheld. A Party commenting on such a proposed press release shall provide its comments, if any, within [* * *] after receiving the press release for review. In addition, to the extent required by applicable Laws, including regulations promulgated by applicable security exchanges, each Party shall have the right to make a press release announcing the achievement of each milestone under this Agreement as it is achieved, and the achievements of Regulatory Approvals in the Territory as they occur, subject only to the review procedure set forth in the preceding sentence. In relation to the other Party's review of such an announcement, such other Party may make specific, reasonable comments on such proposed press release within the prescribed time for commentary, but shall not withhold its consent to disclosure of the information that the relevant milestone has been achieved and triggered a payment hereunder. Neither Party shall be required to seek the permission of the other Party to repeat any information regarding the terms of this Agreement that has already been publicly disclosed by such Party, or by the other Party, in accordance with this Section 12.4, provided such information remains accurate as of such time.

(c) In addition, the Parties acknowledge that either or both Parties may be obligated to file under applicable law and regulation a copy of this Agreement with the USA Securities and Exchange Commission or similar stock exchange authorities or other governmental authorities. Each Party shall be entitled to make such a required filing; *provided*, *however*, that it requests confidential treatment of the commercial terms and sensitive technical terms hereof and thereof to the extent such confidential treatment is reasonably available to such Party. In the event

of any such filing, each Party shall provide the other Party with a copy of this Agreement marked to show provisions for which such Party intends to seek confidential treatment and shall reasonably consider and incorporate the other Party's comments thereon to the extent consistent with the legal requirements, with respect to the filing Party, governing disclosure of material agreements and material information that must be publicly filed.

12.5 Technical Publication. Each Party may not publish peer reviewed manuscripts or give other forms of public disclosure such as abstracts and media presentations (such disclosure collectively, for purposes of this Section 12.5, "**publication**"), of results of studies carried out under this Agreement, without the other Party's prior written consent

12.6 Equitable Relief. Each Party acknowledges that its breach of Article 12 of this Agreement may cause irreparable injury to the other Party for which monetary damages may not be an adequate remedy. Therefore, each Party shall be entitled to seek injunctive and other appropriate equitable relief to prevent or curtail any actual or threatened breach of the obligations relating to Confidential Information set forth in this Article 12 by the other Party. The rights and remedies provided to each Party in this Article 12 are cumulative and in addition to any other rights and remedies available to such Party at law or in equity.

ARTICLE 13
TERM AND TERMINATION

13.1 Term. This Agreement shall become effective on the Effective Date and, unless earlier terminated pursuant to this Article 13, shall remain in effect on a Product-by-Product and country-by-country basis until the expiration of the Royalty Term of such Product in such country (the "**Term**"). On expiration in the particular country and for the particular Product, the license of Section 2.2 for the Product shall automatically convert to be perpetual, irrevocable and non-exclusive in such country.

13.2 Termination for Breach.

(a) Each Party shall have the right to terminate this Agreement in its entirety immediately upon written notice to the other Party if the other Party materially breaches its obligations under this Agreement and, after receiving written notice identifying such material breach in reasonable detail, fails to cure such material breach within [* * *] from the date of such notice (or within [* * *] from the date of such notice in the event such material breach is solely based on the breaching Party's failure to pay any amounts due hereunder).

(b) If the alleged breaching Party disputes in good faith the existence or materiality of a breach specified in a notice provided by the other Party in accordance with Section 13.3(a), and such alleged breaching Party provides the other Party notice of such dispute within the applicable cure period, then the non-breaching Party shall not have the right to terminate this Agreement under Section 13.3(a) unless and until an arbitrator, in accordance with Article 14, has determined that the alleged breaching Party has materially breached the Agreement and such breaching Party fails to cure such breach within the applicable cure period (measured as commencing after the arbitrator's decision). It is understood and agreed that during the pendency of such dispute, all of the terms and conditions of this Agreement shall remain in effect and the Parties shall continue to perform all of their respective obligations hereunder.

13.3 Termination for Bankruptcy. To the extent permitted under applicable Laws, if at any time during the Term of this Agreement, an Event of Bankruptcy (as defined below) relating to either Party (the "**Bankrupt Party**") occurs, the other Party (the "**Other Party**") shall have, in addition to all other legal and equitable rights and remedies available hereunder, the option to terminate this Agreement upon [* * *] written notice to the Bankrupt Party. It is agreed and understood that if the Other Party does not elect to terminate this Agreement upon the occurrence of an Event of Bankruptcy, except as may otherwise be agreed with the trustee or receiver appointed to manage the affairs of the Bankrupt Party, the Other Party shall continue to make all payments required of it under this Agreement as if the Event of Bankruptcy had not occurred, and the Bankrupt Party shall not have the right to terminate any license granted herein. The term "**Event of Bankruptcy**" means: (a) filing, in any court or agency pursuant to any statute or regulation of any state or country, (i) a petition in bankruptcy or insolvency, (ii) for reorganization or (iii) for the appointment of (or for an arrangement for the appointment of) a receiver or trustee of the Bankrupt Party or of its assets; (b) with respect to the Bankrupt Party, being served with an involuntary petition filed in any insolvency proceeding, which such petition is not dismissed within [* * *] after the filing thereof; (c) proposing or being a party to any dissolution or liquidation when insolvent; or (d) making an assignment for the benefit of creditors. Without limitation, the Bankrupt Party's rights under this Agreement shall include those rights afforded by 11 USAC. § 365(n) of the United States Bankruptcy Code (the "**Bankruptcy Code**") and any successor thereto. If the bankruptcy trustee of a Bankrupt Party as a debtor or debtor-in-possession rejects this Agreement under 11 USAC. § 365(o) of the Bankruptcy Code, the Other Party may elect to retain its rights licensed from the Bankrupt Party hereunder (and any other supplementary agreements hereto) for the duration of this Agreement and avail itself of all rights and remedies to the full extent contemplated by this Agreement and 11 USAC. § 365(n) of the Bankruptcy Code, and any other relevant Laws. Furthermore, to the extent permitted under applicable Laws, in an Event of Bankruptcy in which Catalyst is the Bankrupt Party: (i) prior to Catalyst entering into any agreement with a Third Party with respect to the purchase or assignment of any Catalyst Technology, Catalyst shall notify ISU and provide to ISU the terms of any such purchase or assignment of Catalyst Technology; (ii) ISU shall have a right of first refusal with respect to the terms of such purchase or assignment of such Catalyst Technology, which right may be exercised by ISU by giving notice thereof to Catalyst within [* * *] of the ISU's receipt of such notice and terms; (iii) if ISU exercises such right, to the extent permitted under applicable Laws, Catalyst and ISU shall enter into a purchase or assignment agreement of such Catalyst Technology on terms provided to ISU under subsection (i); (iv) in the event that ISU does not exercise its right under subsection (ii), Catalyst will be free to enter into such agreement for the purchase or assignment of such Catalyst Technology with such Third Party with no other obligation to Catalyst with respect thereto. Such right of first refusal shall terminate upon a merger, consolidation, sale by Catalyst of the Catalyst Technology to a Third Party or license to a Third Party by Catalyst of the Catalyst Technology to conduct Development, to Manufacture and to Commercialize Products in the Field in at least two of the following major markets: the USA, the European Union or Asia (but subject to Section 2.4 with respect to Korea), in each case if such event occurs before an Event of Bankruptcy in which Catalyst is the Bankrupt Party.

13.4 Termination for Failed Confirmation Testing. In the event that, pursuant to Section 4.1(a)(i)(2), the Third Party laboratory determines that there exists a material discrepancy between the Compound delivered by Catalyst and the specifications in Schedule 1.13 or with respect to Section 4.1(a)(i)(2)(b), Catalyst does not request a Third Party laboratory confirmation of ISU's prior in vivo Confirmation Testing showing such a material discrepancy, this Agreement shall automatically terminate.

13.5 Termination by Mutual Consent. The Parties may terminate this Agreement upon the mutual agreement of both Parties.

13.6 Termination for Failure of the Phase 1 Study. In the event that ISU fails to (a) dose the first patient in the Phase 1 Study by [* * *] or (b) complete the Phase 1 Study by [* * *], provided Catalyst has not previously entered into a licensing agreement under Section 2.5, Catalyst shall have the right to terminate this Agreement upon [* * *] prior written notice to ISU.

13.7 Effect of Termination.

(a) In the event of termination by ISU for Catalyst's material breach pursuant to Section 13.2 or Catalyst's Event of Bankruptcy pursuant to Section 13.3:

(i) The license granted to ISU under the Catalyst Technology in Section 2.1 will continue solely for the purpose of Development (according to the Development Plan in effect at the time of termination) and Manufacture of Products for Development applications until the completion of the Phase 1 Development Period, and thereafter [* * *];

(ii) The information and data received by ISU pertaining to Catalyst Technology for the purpose of Development and Manufacture of Products as noted in (i) above shall remain in the possession of ISU and ISU is not obligated to return such information and data to Catalyst; provided such information and data will remain the Confidential Information of Catalyst.

(b) In the event of termination by Catalyst for ISU's material breach pursuant to Section 13.2 or ISU's Event of Bankruptcy pursuant to Section 13.3:

(i) The license granted to ISU under the Catalyst Technology in Section 2.1 will terminate and ISU will, within [* * *] of the effective date of termination transfer all of the Information and materials resulting from ISU's Development and Manufacturing efforts.

(ii) The license to Catalyst of the ISU Technology in Section 2.2 shall become perpetual, irrevocable and royalty free. Thereafter, Catalyst shall have no further royalty payment obligations under Section 8.2 or 8.3.

(iii) Catalyst shall have no obligation to license to ISU Development and Commercialization rights in Korea under Section 2.4 and any prior license granted by Catalyst to ISU with respect to Development and Commercialization in Korea will terminate.

(c) In the event of termination of this Agreement pursuant to Section 13.4 or by Catalyst pursuant to Section 13.6:

(i) The license granted to ISU under the Catalyst Technology in Section 2.1 will terminate and ISU will, within [* * *] of the effective date of termination transfer all of the Information and materials resulting from ISU's Development and Manufacturing efforts.

(ii) The license to Catalyst of the ISU Technology in Section 2.2 shall continue and become effective upon termination to allow Catalyst the ability to conduct Clinical Development and Manufacturing Development, to Manufacture and to Commercialize Products in the Field in the Territory. Thereafter, if Catalyst (A) utilizes any Enabled Cell Line of ISU in the

Development and Manufacture of a Product or (B) if any ISU Patent covers any such Product or the Manufacture of such Product, (in each case, a "**Covered Product**") Catalyst shall make the following payments to ISU:

(1) Catalyst shall make each of the following non-refundable, non-creditable milestone payments to ISU upon [* * *]. [* * *].

[* * *]

(2) During the Royalty Term (as such term would apply to the Covered Product), on a country-by-country basis, Catalyst shall pay to ISU non-refundable, non-creditable royalties equal to [* * *].

(iii) ISU will, within [* * *] of the effective date of termination, return to Catalyst all Information and materials (including all stocks of the Compound) received from Catalyst, including all Confidential Information of Catalyst.

(d) In the event of termination of this Agreement pursuant to Section 13.5:

(i) The license granted to ISU under the Catalyst Technology in Section 2.1 will terminate and ISU will, within [* * *] of the effective date of termination, transfer all of the Information and materials resulting from ISU's Development and Manufacturing efforts.

(ii) The license to Catalyst of the ISU Technology in Section 2.2 shall become [* * *]. Thereafter, Catalyst shall have no further royalty payment obligations under Section 8.2 or 8.3.

13.8 Effect of Expiration. Upon the expiration of this agreement, the license granted to Catalyst pursuant to Section 2.2 and any rights granted to ISU pursuant to Section 2.4 will become [* * *].

13.9 Survival. Termination or expiration of this Agreement shall not affect any rights or obligations of the Parties under this Agreement that have accrued prior to the date of termination or expiration. Notwithstanding anything to the contrary, the following provisions shall survive any expiration or termination of this Agreement: Sections 2.7, 5.4, 5.5, 5.6, 8.7, 8.8, and 8.9 and Articles 9, 11, 12, 13, 14, and 15.

13.10 Rights in Bankruptcy. All rights and licenses granted under or pursuant to this Agreement by ISU are, and will otherwise be deemed to be, for purposes of Section 365(n) of the U.S. Bankruptcy Code, licenses of rights to **"**intellectual property**"** as defined under Section 101 of the U.S. Bankruptcy Code.

ARTICLE 14
DISPUTE RESOLUTION

14.1 Disputes. The Parties recognize that disputes as to certain matters may from time to time arise that relate to either Party's rights and/or obligations hereunder. It is the objective of the Parties to establish procedures to facilitate the resolution of disputes arising under

this Agreement in an expedient manner by mutual cooperation and without resort to litigation. To accomplish this objective, the Parties agree to follow the procedures set forth in this Article 14 to resolve any controversy or claim arising out of, relating to or in connection with any provision of this Agreement, if and when a dispute arises under this Agreement.

14.2 Internal Resolution. With respect to all disputes arising between the Parties under this Agreement, including any alleged breach under this Agreement or any issue relating to the interpretation or application of this Agreement, if the Parties are unable to resolve such dispute within [* * *] after such dispute is first identified by either Party in writing to the other, the Parties shall refer such dispute to the Executive Officers of the Parties for attempted resolution by good faith negotiations within [* * *] after such notice is received, including at least one (1) in-person meeting of the Executive Officers within [* * *] after such notice is received.

14.3 Arbitration. If the Executive Officers of the Parties are not able to resolve such dispute referred to them under Section 14.2 within such [* * *] period, then subject to Section 14.4, such dispute shall be settled by binding arbitration in accordance with the then current rules of commercial arbitration of the American Arbitration Association ("**AAA**"). A single arbitrator with experience in the development and commercialization of drugs and diagnostics shall be appointed by mutual agreement of the Parties, but failing such agreement, selected in accordance with the AAA rules. The place of arbitration shall be [* * *]. The arbitrator's fees and expenses shall be shared equally by the Parties. Each Party shall bear and pay its own expenses incurred in connection with any dispute resolution under this Section 14.3. The proceedings, including any outcome, shall be confidential. Notwithstanding the foregoing, either Party shall have the right, without waiving any right or remedy available to such Party under this Agreement or otherwise, to seek and obtain from any court of competent jurisdiction any interim or provisional relief that is necessary or desirable to protect the rights or property of such Party, pending the selection of the arbitrator hereunder or pending the arbitrator's decision of the dispute subject to arbitration.

14.4 Patent and Trademark Disputes. Notwithstanding Section 14.3, any dispute, controversy or claim relating to the scope, validity, enforceability or infringement of any Patent covering the manufacture, use, importation, offer for sale or sale of any Product or of any trademark rights relating to any Product shall be submitted to a court of competent jurisdiction in the country in which such Patent or trademark rights were granted or arose.

14.5 Injunctive Relief. Notwithstanding anything to the contrary in this Article 14, either party may seek equiable relief, including an injunction, in any court of competent jurisdiction, related to any violation or potential violation of Article 12 hereof.

ARTICLE 15
MISCELLANEOUS

15.1 Entire Agreement; Amendment. This Agreement, together with the exhibits attached hereto and which are hereby incorporated herein, represents the entire agreement and understanding between the Parties with respect to its subject matter and supersedes and terminates any prior and/or contemporaneous discussions, representations or agreements, whether written or oral, of the Parties regarding the subject matter hereto, and supersedes, as of the Effective Date, all prior and contemporaneous agreements and understandings between the Parties

with respect to the subject matter hereof (including the Prior NDA). There are no covenants, promises, agreements, warranties, representations, conditions or understandings, either oral or written, between the Parties other than as are set forth in this Agreement. Amendments or changes to this Agreement shall be valid and binding only if in writing and signed by duly authorized representatives of the Parties.

15.2 Force Majeure. Both Parties shall be excused from the performance of their obligations under this Agreement to the extent that such performance is prevented by force majeure and the nonperforming Party promptly provides notice of the prevention to the other Party. Such excuse shall be continued so long as the condition constituting force majeure continues and the nonperforming Party takes reasonable efforts to remove the condition. For purposes of this Agreement, force majeure shall include conditions beyond the control of the Parties, including an act of God, war, civil commotion, terrorist act, labor strike or lock-out, epidemic, failure or default of public utilities or common carriers, destruction of production facilities or materials by fire, earthquake, storm or like catastrophe, and failure of plant or machinery (provided that such failure could not have been prevented by the exercise of skill, diligence, and prudence that would be reasonably and ordinarily expected from a skilled and experienced person engaged in the same type of undertaking under the same or similar circumstances). Notwithstanding the foregoing, a Party shall not be excused from making payments owed hereunder because of a force majeure affecting such Party. If a force majeure persists for more than [* * *], then the Parties shall discuss in good faith the modification of the Parties' obligations under this Agreement in order to mitigate the delays caused by such force majeure.

15.3 Notices. Any notice required or permitted to be given under this Agreement shall be in writing, shall specifically refer to this Agreement, and shall be addressed to the appropriate Party at the address specified below or such other address as may be specified by such Party in writing in accordance with this Section 15.3, and shall be deemed to have been given for all purposes (a) when received, if hand-delivered or sent by confirmed facsimile or a reputable courier service, or (b) five (5) business days after mailing, if mailed by first class certified or registered airmail, postage prepaid, return receipt requested.

If to Catalyst: Catalyst Biosciences, Inc.
260 Littlefield Avenue,
South San Francisco, CA 94080
Attn: Nassim Usman, Ph.D., Chief Executive Officer

With a copy to (which shall not constitute notice):

Morrison & Foerster LLP
2000 Pennsylvania Avenue, NW Suite 6000
Washington, DC 20006-1888, USA
Attn: Stephen Thau

Confidential treatment has been sought for portions of this Agreement. The copy filed herewith omits the information subject to the confidential treatment request. Omissions are designated as * * *. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

If to ISU: ISU Abxis.

Pangyo Global R&D Center, C-5th Bldg.
22 Daewangpangyo-ro, 712 Beon-gil
Bundang-gu, Seungnam-si,
463-400, Korea
Attn. : Dr. June Young Park
(and her successor)

With a copy to (which shall not constitute notice):

_____
_____
_____
_____
_____

15.4 No Strict Construction; Headings. This Agreement has been prepared jointly by the Parties and shall not be strictly construed against either Party. Ambiguities, if any, in this Agreement shall not be construed against any Party, irrespective of which Party may be deemed to have authored the ambiguous provision. The headings of each Article and Section in this Agreement have been inserted for convenience of reference only and are not intended to limit or expand on the meaning of the language contained in the particular Article or Section. Except where the context otherwise requires, the use of any gender shall be applicable to all genders, and the word "or" is used in the inclusive sense (and/or). The term "including" as used herein means including, without limiting the generality of any description preceding such term.

15.5 Assignment. Neither Party may assign this Agreement without the prior written consent of the other Party, such consent not to be unreasonably withheld, except that either Party may assign this Agreement without the prior consent of the other Party: (a) to a Third Party successor to all or substantially all of its stock or assets relating to the Product (an "**Acquiror**"), whether in connection with a merger, consolidation or sale of assets or other transaction; or (b) to its Affiliate. Any permitted assignment shall be binding on the successors of the assigning Party. Any successor or assignee of rights and/or obligations permitted hereunder shall, in writing to the other Party, expressly assume performance of such rights and/or obligations. [* * *]. Any attempted or purported assignment in violation of this Section 15.5 shall be null and void.

15.6 Performance by Affiliates. Each Party may discharge any obligations and exercise any right hereunder through any of its Affiliates. Each Party hereby guarantees the performance by its Affiliates of such Party's obligations under this Agreement, and shall cause its Affiliates to comply with the provisions of this Agreement in connection with such performance. Any breach by a Party's Affiliate of any of such Party's obligations under this Agreement shall be deemed a breach by such Party, and the other Party may proceed directly against such Party without any obligation to first proceed against such Party's Affiliate.

15.7 Further Actions. Each Party agrees to execute, acknowledge and deliver such further instruments, and to do all such other acts, as may be necessary or appropriate in order to carry out the purposes and intent of this Agreement.

15.8 Severability. If any provision of this Agreement is found by a court of competent jurisdiction to be unenforceable, then such provision shall be construed, to the extent feasible, so as to render the provision enforceable, and if no feasible interpretation would save such provision, it shall be severed from the remainder of this Agreement. The remainder of this Agreement shall remain in full force and effect, unless the severed provision is essential and material to the rights or benefits received by either Party. In such event, the Parties shall negotiate, in good faith, and substitute a valid and enforceable provision or agreement that most nearly implements the Parties' intent in entering into this Agreement.

15.9 No Waiver. No provision of this Agreement can be waived except by the express written consent of the Party waiving compliance. Except as specifically provided for herein, the waiver from time to time by either Party of any of its rights or its failure to exercise any remedy shall not operate or be construed as a continuing waiver of same or of any other of such Party's rights or remedies provided in this Agreement.

15.10 Independent Contractors. For all purposes under this Agreement, ISU and Catalyst are independent contractors with respect to each other, and shall not be deemed to be an employee, agent, partner or legal representative of the other Party. This Agreement does not grant any Party or its employees, consultants or agents any authority (express or implied) to do any of the following without the prior express written consent of the other Party: create or assume any obligation; enter into any agreement; make any representation or warranty; serve or accept legal process on behalf of the other Party; settle any claim by or against the other Party; or bind or otherwise render the other liable in any way.

15.11 Governing Law. This Agreement shall be governed by the laws of the state of California, without regard to its choice of law provisions that would require the application of the laws of a different jurisdiction.

15.12 Counterparts. This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original but all of which together shall constitute the same legal instrument.

[Signature page follows]

Confidential treatment has been sought for portions of this Agreement. The copy filed herewith omits the information subject to the confidential treatment request. Omissions are designated as * * *. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

IN WITNESS WHEREOF, the Parties have executed this Agreement by their duly authorized officers as of the Effective Date.

ISU ABXIS

By: _____
Name: Mr. Seung Ho Lyu
Title: CEO and President

CATALYST BIOSCIENCES

By: _____
Name: Nassim Usman, Ph.D.
Title: Chief Executive Officer

Confidential treatment has been sought for portions of this Agreement. The copy filed herewith omits the information subject to the confidential treatment request. Omissions are designated as * * *. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

LIST OF SCHEDULES:

Confidential treatment has been sought for portions of this Agreement. The copy filed herewith omits the information subject to the confidential treatment request. Omissions are designated as * * *. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

Schedule 1.5

Catalyst Patent Rights

[* * *]

Confidential treatment has been sought for portions of this Agreement. The copy filed herewith omits the information subject to the confidential treatment request. Omissions are designated as * * *. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

Schedule 1.11
Compound

[* * *]

Confidential treatment has been sought for portions of this Agreement. The copy filed herewith omits the information subject to the confidential treatment request. Omissions are designated as * * *. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

Schedule 1.13
Confirmation Testing Specifications

[* * *]

Confidential treatment has been sought for portions of this Agreement. The copy filed herewith omits the information subject to the confidential treatment request. Omissions are designated as * * *. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

Schedule 1.19
Development Plan

[* * *]

Confidential treatment has been sought for portions of this Agreement. The copy filed herewith omits the information subject to the confidential treatment request. Omissions are designated as * * *. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

Schedule 1.33
ISU Patent Rights

[* * *]

Schedule 1.51
Phase 1 Study Design

[* * *]

Confidential treatment has been sought for portions of this Agreement. The copy filed herewith omits the information subject to the confidential treatment request. Omissions are designated as * * *. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

Schedule 4.1
Materials and Information from Catalyst to ISU

[* * *]

Confidential treatment has been sought for portions of this Agreement. The copy filed herewith omits the information subject to the confidential treatment request. Omissions are designated as * * *. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

Schedule 12.4
Joint Press Release

[to be agreed upon by the Parties within 30 days of the effective date]

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption “Experts” and to the use of our report dated March 16, 2015, included in the Proxy Statement of Targacept, Inc. that is made part of Amendment No. 2 to the Registration Statement (Form S-4 No. 333-204423) and related Prospectus of Targacept, Inc. for the registration of shares of its common stock and redeemable convertible notes.

/s/ Ernst & Young LLP

Raleigh, North Carolina
July 17, 2015

Exhibit 23.2

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the inclusion in this Amendment No. 2 to the Registration Statement of Targacept, Inc. on Form S-4, to be filed on or about July 17, 2015 of our report dated May 22, 2015, on our audits of the financial statements of Catalyst Biosciences, Inc. as of December 31, 2014 and 2013 and for each of the years in the two-year period ended December 31, 2014. Our report includes an explanatory paragraph about the existence of substantial doubt concerning Catalyst Biosciences, Inc.'s ability to continue as a going concern.

We also consent to the reference to our firm under the caption "Experts" in the Registration Statement on Form S-4.

/s/ EisnerAmper LLP

Iselin, New Jersey
July 17, 2015

Exhibit 99.1

TARGACEPT, INC.
ATTN: PATRICK ROCK
100 NORTH MAIN STREET, STE 1510
WINSTON SALEM, NC 27101

VOTE BY INTERNET - www.proxyvote.com
Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

ELECTRONIC DELIVERY OF FUTURE PROXY MATERIALS
If you would like to reduce the costs incurred by our company in mailing proxy materials, you can consent to receiving all future proxy statements, proxy cards and annual reports electronically via e-mail or the Internet. To sign up for electronic delivery, please follow the instructions above to vote using the Internet and, when prompted, indicate that you agree to receive or access proxy materials electronically in future years.

VOTE BY PHONE - 1-800-690-6903
Use any touch-tone telephone to transmit your voting instructions up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL
Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS: ☒

KEEP THIS PORTION FOR YOUR RECORDS

DETACH AND RETURN THIS PORTION ONLY

TARGACEPT, INC.

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

The Board of Directors recommends you vote FOR all of the following proposals:	**For**	**Against**	**Abstain**
1. To approve the merger agreement and the issuance of shares of common stock to Catalyst Biosciences, Inc. stockholders and the issuance of redeemable convertible notes to the Company's stockholders pursuant to the merger.	☐	☐	☐
2. To approve an amendment to the Company's fourth amended and restated certificate of incorporation effecting a reverse stock split of common stock, at a ratio of 7-for-1.	☐	☐	☐
3. To approve an amendment to the Company's fourth amended and restated certificate of incorporation changing the Company's corporate name to "Catalyst Biosciences, Inc."	☐	☐	☐
4. To approve the Company's 2015 Stock Incentive Plan.	☐	☐	☐
5. To elect Errol B. De Souza, Ph.D. as a Class III director for a term to expire at the 2018 annual meeting of stockholders; provided, however, that, if the merger is completed, the board of directors will be reconstituted as provided in the merger agreement.	☐	☐	☐
6. To approve, on an advisory basis, the compensation of the Company's named executive officers, as disclosed in its proxy statement / prospectus / information statement.	☐	☐	☐
7. To approve, on an advisory basis, the golden parachute compensation that may be paid or become payable to the Company's named executive officers as a result of the merger	☐	☐	☐
8. To ratify the appointment of Ernst & Young, LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2015.	☐	☐	☐
9. To consider and vote on a proposal to adjourn the annual meeting, if necessary, to solicit additional proxies, in the event that there are not sufficient votes at the time of the annual meeting to approve the items under 1, 2 and 3 above.	☐	☐	☐

	Yes	**No**
For address change/comments, mark here.	☐	☐
Please indicate if you plan to attend this meeting	☐	☐

Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name, by authorized officer.

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting: The Form 10-K, Notice & Proxy Statement is/are available at www.proxyvote.com

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TARGACEPT, INC.
Annual Meeting of Stockholders
[●], 2015 10:00 AM
This proxy is solicited by the Board of Directors

The stockholder(s) hereby appoint(s) John P. Richard and Dr. Stephen A. Hill, or either of them, as proxies, each with the power to appoint (his/her) substitute, and hereby authorizes them to represent and to vote, as designated on the reverse side of this ballot, all of the shares of Common Stock of Targacept, Inc. that the stockholder(s) is/are entitled to vote at the Annual Meeting of Stockholder(s) to be held at 10:00 AM (Eastern Time) on [●], 2015, at [●], and any adjournment or postponement thereof.

This proxy, when properly executed, will be voted in the manner directed herein. If not such direction is made, this proxy will be voted for all proposals listed on the reverse side.

Address change / comments:

_____
_____
_____

(If you noted any Address Changes and/or Comments above, please mark corresponding box on the reverse side.)

Continued and to be signed on reverse side