

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 20549**

**FORM S-8  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933**

**CATALYST BIOSCIENCES, INC.**

(Formerly, Targacept, Inc.)  
(Exact Name of Registrant as Specified in its Charter)

**DELAWARE**  
(State or Other Jurisdiction of  
Incorporation or Organization)

**56-2020050**  
(I.R.S. Employer  
Identification No.)

260 Littlefield Avenue  
South San Francisco, CA 94080  
(Address of Principal Executive Offices, including Zip Code)

CATALYST BIOSCIENCES, INC.  
2004 STOCK PLAN, AS AMENDED  
AND  
STAND-ALONE STOCK OPTION GRANTS  
(Full Titles of the Plans)

Nassim Usman, Ph.D.  
President and Chief Executive Officer  
Catalyst Biosciences, Inc.  
260 Littlefield Avenue  
South San Francisco, CA 94080  
(650) 745-0655  
(Name, Address and Telephone Number, including Area Code, of Agent for Service)

With a copy to:  
Stephen B. Thau, Esq.  
Morrison & Foerster LLP  
1650 Tysons Boulevard  
McLean, VA 22102  
(650) 813-5640

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. (Check one):

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

**CALCULATION OF REGISTRATION FEE**

Title of Securities To Be Registered	Amount To Be Registered(1)	Proposed Maximum Offering Price Per Share(2)	Proposed Maximum Aggregate Offering Price(2)	Amount of Registration Fee(2)
Common Stock, par value \$.001 per share	267,115	\$8.85	\$2,363,968	\$275

- (1) This Registration Statement covers (i) 231,570 shares available for issuance under outstanding options granted under the Catalyst Biosciences, Inc. 2004 Stock Plan, as amended (the "2004 Plan") and (ii) an aggregate of 35,545 shares available for issuance under stand-alone option grants using a form stock option agreement entered into between Catalyst Biosciences, Inc. ("Predecessor Catalyst"), now a wholly-owned subsidiary of registrant, and certain service providers (the "Option Agreements," and, collectively with the 2004 Plan, the "Plans"). The Plans were assumed by Catalyst Biosciences, Inc. (formerly, Targacept, Inc.) (the "Company") effective August 20, 2015 pursuant to the Agreement and Plan of Merger dated as of March 5, 2015, as amended, among Targacept, Inc., Talos Merger Sub, Inc. and Catalyst Biosciences, Inc. (as defined above, "Predecessor Catalyst")

(the "Merger Agreement"). This Registration Statement also registers additional securities to be offered or issued upon adjustment or changes made to the registered securities by reason of any stock splits, stock dividends or similar transactions as permitted by Rule 416(a) and Rule 416(b) under the Securities Act of 1933, as amended (the "Securities Act").

- (2) Pursuant to Rule 457(h)(1) under the Securities Act, based on the weighted average of the exercise price for the outstanding options granted under the Plans.
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## EXPLANATORY NOTE

Effective August 20, 2015 (the “Effective Date”), pursuant to the Agreement and Plan of Merger dated as of March 5, 2015, as amended (the “Merger Agreement”) among Catalyst Biosciences, Inc. (formerly, Targacept, Inc.) (the “Company”), Talos Merger Sub, Inc., and Catalyst Biosciences, Inc. (“Predecessor Catalyst”), Predecessor Catalyst became a wholly-owned subsidiary of the Company. On the Effective Date, Targacept, Inc. changed its name to Catalyst Biosciences, Inc. (as defined above, the “Company”). Pursuant to the Merger Agreement, effective August 20, 2015, the Company assumed certain obligations of Predecessor Catalyst with respect to outstanding options to purchase 6,063,279 shares of Predecessor Catalyst granted under (i) the Catalyst Biosciences, Inc. 2004 Stock Plan, as amended (the “2004 Plan”), and (ii) certain stand-alone Stock Option Agreements entered into between Predecessor Catalyst and certain service providers (collectively, the “Option Agreements,” and, with the 2004 Plan, the “Plans”) with respect to shares of Predecessor Catalyst as follows - (a) option for 200,000 shares granted to Hansoo Keyoung, M.D., Ph.D. on February 20, 2014; (b) option for 100,000 shares granted to Hansoo Keyoung, M.D., Ph.D. on February 20, 2014; (c) option for 191,635 shares granted to Fletcher Payne on January 22, 2015; (d) option for 63,878 shares granted to Fletcher Payne on January 22, 2015; and (e) option for 375,000 shares granted to Fletcher Payne on May 8, 2015. Further, pursuant to the Merger Agreement, all such options to purchase shares of Predecessor Catalyst were converted into options for the Company’s stock based on the exchange ratio of 0.0382 (the “Exchange Ratio”), rounded down to the nearest whole share, and the per share exercise price for the shares of Catalyst common stock issuable upon the exercise of each such option assumed was correspondingly adjusted.

The Company therefore has prepared this Registration Statement (the “Registration Statement”) in accordance with the requirements of Form S-8 under the Securities Act of 1933, as amended (the “Securities Act”), to register an aggregate of (i) 231,570 shares of common stock of the Company authorized for issuance under the 2004 Plan and (ii) 35,545 shares of common stock of the Company authorized for issuance under the Option Agreements.

### PART I

#### INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

**Item 1.**      **Plan Information.\***

**Item 2.**      **Registrant Information and Employee Plan Annual Information.\***

\* The documents containing the information specified in Part I of Form S-8 will be sent or given to employees as specified by Rule 428(b)(1) of the Securities Act. Such documents need not be filed with the Securities and Exchange Commission (the “Commission”) either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 of the Securities Act. These documents and the documents incorporated by reference in this Registration Statement pursuant to Item 3 of Part II of this Registration Statement, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

**PART II**

**INFORMATION REQUIRED IN THE REGISTRATION STATEMENT**

**Item 3. Incorporation of Documents by Reference.**

The following documents filed by the Company with the Commission are incorporated herein by reference:

(a) The Company's Joint Proxy Statement/Prospectus filed pursuant to Rule 424(b)(3) of the Securities Act of 1933, as amended (the "Securities Act"), filed with the Commission on July 28, 2015;

(b) The Company's Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2015 and June 30, 2015, filed with the Commission on May 7, 2015 and July 31, 2015, respectively;

(c) The Company's Current Reports on Form 8-K filed with the Commission on March 6, 2015, March 6, 2015 (solely with respect to Item 8.01), March 17, 2015, April 6, 2015, April 16, 2015, May 12, 2015, May 14, 2015, August 4, 2015, August 19, 2015 and August 20, 2015;

(d) The description of the Company's Common Stock, par value \$0.001 per share, contained in the Company's Registration Statement on Form 8-A filed with the Commission on April 6, 2006, with respect to such Common Stock, including any subsequent amendment or report filed for the purposes of updating such description; and

(e) All other reports filed pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), since the end of the fiscal year referred to in (a) above.

All documents subsequently filed by the Company pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities remaining unsold, shall be deemed to be incorporated by reference herein and to be a part hereof from the date of the filing of such documents. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for the purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document which also is or deemed to be incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

**Item 4. Description of Securities.**

Not applicable.

**Item 5. Interests of Named Experts and Counsel.**

Not applicable.

**Item 6. Indemnification of Directors and Officers.**

The Company's Fourth Amended and Restated Certificate of Incorporation, as amended (as may be further amended and in effect from time to time, the "Certificate"), provides that the Company's directors shall not be personally liable to the Company or its stockholders for monetary damages for any breach of fiduciary duty as a director, except for liability for breach of the director's duty of loyalty to the Company or its stockholders, for acts or omissions not in good faith or involving intentional misconduct or a knowing violation of law, for payment of dividends or approval of stock purchases or redemptions that are prohibited by the General Corporation Law of the State of Delaware, as amended (the "DGCL"), or for any transaction from which the director derived an improper personal benefit. Under the DGCL, the

Company's directors have a fiduciary duty to the Company that is not eliminated by this provision of the Certificate and, in appropriate circumstances, equitable remedies such as injunctive or other forms of non-monetary relief will remain available. This provision also does not affect the directors' responsibilities under any other laws, such as federal securities laws or state or federal environmental laws.

Section 145 of the DGCL empowers a corporation to indemnify its directors and officers against expenses (including attorneys' fees), judgments, fines and amounts paid in settlements actually and reasonably incurred by them in connection with any action, suit or proceeding brought by third parties by reason of the fact that they were or are directors or officers of the corporation, if they acted in good faith, in a manner they 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 that their conduct was unlawful. The DGCL also permits a corporation to indemnify any person who was or is a party or is threatened to be made a party to any action by or in the right of the corporation by reason of the fact the person is or was serving as a director, officer, employee or agent of the corporation, or as a director, officer, employee or agent of another entity at the request of the corporation, against expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of the action if the person acted in good faith in a manner the person reasonably believed to be not opposed to the best interests of the corporation; however, no indemnification is permitted as to any matter where the person has been adjudged to be liable to the corporation, except in limited instances. The DGCL provides further that the indemnification permitted thereunder shall not be deemed exclusive of any other rights to which the directors and officers may be entitled under the corporation's bylaws, any agreement, a vote of stockholders or otherwise. The Certificate provides that, to the fullest extent permitted by Section 145 of the DGCL, the Company shall indemnify any person who is or was a director or officer of the Company, or is or was serving at the Company's request as a director, officer or trustee of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise, against the expenses, liabilities or other matters referred to in or covered by Section 145 of the DGCL.

The Company's amended and restated bylaws (the "Bylaws") provide that the Company will indemnify any person who was or is a party or threatened to be made a party to any proceeding by reason of the fact that such person is or was a director or officer of the Company or is or was serving at the Company's request as a director, officer or trustee of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise to the fullest extent permitted by the DGCL. Additionally, in proceedings other than those by or in the right of the Company, the Bylaws provide that such indemnification right includes the right to advancement of expenses; provided, however, that if the DGCL 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) will be made only upon delivery to the Company of an undertaking, by or on behalf of such indemnitee, to repay all amounts so advanced if it will ultimately be determined that such indemnitee is not entitled to indemnification by the Company under the Bylaws or otherwise. The Bylaws further provide that any indemnification thereunder will not be deemed exclusive of any other rights to which indemnitees may be entitled under the Certificate, Bylaws, any agreement, vote of stockholders or disinterested directors or otherwise.

Section 145 of the DGCL also empowers a corporation to purchase insurance for its officers and directors for such liabilities. The Company maintains liability insurance for its officers and directors.

In addition, the Company has entered into agreements with its directors and officers under which, among other things, the Company has agreed to indemnify them against expenses incurred in any proceeding, including any action by the Company, in which any such person was, is or is threatened to be made a party or a participant by reason of such person's status as a present or former director, officer, employee or agent of the Company or, at the Company's request, any other corporation, partnership, joint

venture, trust, employee benefit plan or other enterprise. At present, there is no pending litigation or proceeding involving any director or officer as to which indemnification will be required or permitted under the Certificate, and the Company is not aware of any threatened litigation or proceeding that may result in a claim for such indemnification.

Pursuant to the Agreement and Plan of Merger dated March 5, 2015, as amended (the "Merger Agreement"), the Company agreed that all rights to indemnification, exculpation or advancement of expenses existing prior to the closing of the merger described therein (the "Merger") in favor of, and all limitations on the personal liability of, each present and former director and officer of the Company as provided for in its organizational documents in effect as of the date of the Merger Agreement would continue to be honored and in full force and effect for a period of six years after the closing of the Merger, which occurred on August 20, 2015. Pursuant to the terms of the Merger Agreement, the Company has also purchased a six-year "tail" directors' and officers' liability policy that became effective as of the closing date as of the Merger.

**Item 7. Exemption from Registration Claimed.**

Not applicable.

**Item 8. Exhibits.**

The following exhibits are filed as a part of this Registration Statement:

<u>Exhibit No.</u>	<u>Description</u>
4.1	Fourth Amended and Restated Certificate of Incorporation of the Company, which is incorporated herein by reference to Exhibit 4.1 to the Company's Registration Statement on Form S-8 (Registration No. 333-133881) filed with the Commission on May 8, 2006.
4.2	Certificate of Amendment to the Fourth Amended and Restated Certificate of Incorporation of the Company, which is incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed with the Commission on August 20, 2015.
4.3	Bylaws of the Company, as amended and restated effective March 5, 2015, which are incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed with the Commission on March 6, 2015.
4.4	Specimen Certificate of Common Stock, which is incorporated herein by reference to Exhibit 4.1 to Amendment No. 3 to the Company's Registration Statement on Form S-1/A (File No. 333-131050) filed with the Commission on March 16, 2006.
4.5(a)	Third Amended and Restated Investor Rights Agreement, dated May 12, 2004, by and among the Company and certain stockholders of the Company, which is incorporated herein by reference to Exhibit 4.2(a) to the Company's Registration Statement on Form S-1 (File No. 333-131050) filed with the Commission on January 17, 2006.
4.5(b)	Amendment No. 1, dated December 6, 2004, to Third Amended and Restated Investor Rights Agreement, dated May 12, 2004, which is incorporated herein by reference to Exhibit 4.2(b) to the Company's Registration Statement on Form S-1 (File No. 333-131050) filed with the Commission on January 17, 2006.

- 4.5(c) Amendment No. 2, dated March 16, 2006, to Third Amended and Restated Investor Rights Agreement, dated May 12, 2004, which is incorporated herein by reference to Exhibit 4.2(c) to Amendment No. 4 to the Company's Registration Statement on Form S-1/A (File No. 333-131050) filed with the Commission on March 24, 2006.
- 5.1 Opinion of Morrison & Foerster LLP, counsel to the Company, regarding the legality of the securities being registered.
- 23.1 Consent of Morrison & Foerster LLP, counsel to the Company (included in Exhibit 5).
- 23.2 Consent of Ernst & Young LLP.
- 23.3 Consent of EisnerAmper LLP.
- 24 Power of Attorney (included on signature page).
- 99.1 Catalyst Biosciences, Inc. 2004 Stock Plan, as amended.
- 99.2 Stock Option Agreement – Early Exercise, No. 424, dated February 20, 2014, by and between Catalyst Biosciences, Inc. and Hansoo Keyoung, M.D., Ph.D.
- 99.3 Stock Option Agreement – Early Exercise, No. 425, dated February 20, 2014, by and between Catalyst Biosciences, Inc. and Hansoo Keyoung, M.D., Ph.D.
- 99.4 Stock Option Agreement – Early Exercise, No. 427, dated January 22, 2015, by and between Catalyst Biosciences, Inc. and Fletcher Payne, which is incorporated herein by reference to Exhibit 10.40(A) to the Company's Registration Statement on Form S-4 (File No. 333-204423), filed with the Commission on May 22, 2015.
- 99.5 Stock Option Agreement—Early Exercise, No. 428, dated January 22, 2015, by and between Catalyst and Fletcher Payne, which is incorporated herein by reference to Exhibit 10.40(B) to the Company's Registration Statement on Form S-4 (File No. 333-204423), filed with the Commission on May 22, 2015.
- 99.6 Stock Option Agreement—Early Exercise, No. 429, dated May 8, 2015, by and between Catalyst and Fletcher Payne, which is incorporated herein by reference to Exhibit 10.40(C) to the Company's Registration Statement on Form S-4 (File No. 333-204423), filed with the Commission on May 22, 2015.

**Item 9. Undertakings.**

- (a) The undersigned Company hereby undertakes:
  - (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;
    - (ii) to reflect in the prospectus any facts or events arising after the effective date of this 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 this 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 Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent 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 this Registration Statement or any material change to such information in this Registration Statement;

provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with, or furnished to, the Commission by the Company pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in this 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.
- (b) The undersigned Company hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Company's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) 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.
- (c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Company pursuant to the foregoing provisions, or otherwise, the Company has been advised that in the opinion of the 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 Company of expenses incurred or paid by a director, officer or controlling person of the Company 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 Company 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.



**SIGNATURES**

**THE REGISTRANT**

Pursuant to the requirements of the Securities Act of 1933, Catalyst Biosciences, Inc. (formerly, Targacept, Inc.) certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of South San Francisco, State of California, on this 21<sup>st</sup> day of August, 2015.

**CATALYST BIOSCIENCES, INC.**

By: /s/ Nassim Usman, Ph.D.  
Nassim Usman, Ph.D.  
Chief Executive Officer and President

Each of the undersigned, being a director and/or officer of Catalyst Biosciences, Inc. (formerly, Targacept, Inc.) (the "Company"), hereby nominates, constitutes and appoints Nassim Usman, Ph.D., and Fletcher Payne, or either of them severally, to be his true and lawful attorney-in-fact and agent and to sign in his name and on his behalf in any and all capacities stated below, and to file with the Securities and Exchange Commission (the "Commission"), a Registration Statement on Form S-8 (the "Registration Statement") relating to the issuance of certain shares of the common stock, \$0.001 par value, of the Company (the "Common Stock") in connection with (i) the Catalyst Biosciences, Inc. 2004 Stock Plan, as amended, and (ii) those certain stand-alone stock option agreements identified in the Explanatory Note to this Registration Statement, and to file any and all amendments, including post-effective amendments, exhibits and other documents and instruments in connection therewith, to the Registration Statement, making such changes in the Registration Statement as such attorney-in-fact and agent deems appropriate, and generally to do all such things on his behalf in any and all capacities stated below to enable the Company to comply with the provisions of the Securities Act of 1933, as amended (the "Securities Act"), and all requirements of the Commission.

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following persons in the capacities indicated on August 21, 2015.

/s/ Nassim Usman, Ph.D.  
Name: Nassim Usman, Ph.D.  
Title: Chief Executive Officer, President and Director (principal executive officer)

/s/ Fletcher Payne  
Name: Fletcher Payne  
Title: Chief Financial Officer (principal financial officer and principal accounting officer)

/s/ Harold E. Selick, Ph.D.  
Name: Harold E. Selick, Ph.D.  
Title: Chairman of the Board of Directors

/s/ Stephen A. Hill, M.D.  
Name: Stephen A. Hill, M.D.  
Title: Director

/s/ Augustine Lawlor  
Name: Augustine Lawlor  
Title: Director

/s/ Jeff Himawan, Ph.D.  
Name: Jeff Himawan, Ph.D.  
Title: Director

/s/ John P. Richard  
Name: John P. Richard  
Title: Director

/s/ Errol B. De Souza, Ph.D.  
Name: Errol B. De Souza, Ph.D.  
Title: Director

**EXHIBIT INDEX**  
**to**  
**Registration Statement on Form S-8 of**  
**Catalyst Biosciences, Inc. (formerly, Targacept, Inc.)**

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4.4	Specimen Certificate of Common Stock, which is incorporated herein by reference to Exhibit 4.1 to Amendment No. 3 to the Company's Registration Statement on Form S-1/A (File No. 333-131050) filed with the Commission on March 16, 2006.
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4.5(b)	Amendment No. 1, dated December 6, 2004, to Third Amended and Restated Investor Rights Agreement, dated May 12, 2004, which is incorporated herein by reference to Exhibit 4.2(b) to the Company's Registration Statement on Form S-1 (File No. 333-131050) filed with the Commission on January 17, 2006.
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23.1	Consent of Morrison & Foerster LLP, counsel to the Company (included in Exhibit 5).
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August 21, 2015

Catalyst Biosciences, Inc.  
260 Littlefield Avenue  
South San Francisco, CA 94080

**Registration Statement on Form S-8**

Ladies and Gentlemen:

At your request, we have examined the Registration Statement on Form S-8 (the "Registration Statement") filed by Catalyst Biosciences, Inc. (formerly, Targacept, Inc.) (the "Company") with the Securities and Exchange Commission (the "Commission") on August 21, 2015, relating to the registration under the Securities Act of 1933, as amended, of an aggregate of 267,115 shares of the Company's Common Stock (the "Shares") issuable pursuant to stock options granted under the Catalyst Biosciences, Inc. 2004 Stock Plan, as amended (the "Plan") and certain stand-alone stock option agreements with certain individuals (the "Options"), as assumed in connection with the Agreement and Plan of Merger dated as of March 5, 2015, as amended (the "Merger Agreement") among the Company, Talos Merger Sub, Inc., and Catalyst Biosciences, Inc. ("Predecessor Catalyst"),

In connection with this opinion, we have examined the originals, or photostatic or certified copies, of the Merger Agreement, the Registration Statement and such records of the Company and certificates of officers of the Company and of public officials and such other documents as we have deemed relevant and necessary as the basis for the opinions set forth below. For the purpose of the opinion rendered below, we have assumed that in connection with the issuance of the Shares, the Company will receive consideration in an amount not less than the aggregate par value of the Shares covered by each such issuance. In our examination, we have assumed the genuineness of all signatures, the legal capacity and competency of all natural persons, the authenticity of all documents submitted to us as originals and the conformity to original documents of all documents submitted to us as copies.

We express no opinion as to matters governed by any laws other than the General Corporation Law of the State of Delaware in effect on the date hereof.

Based upon and subject to the foregoing, we are of the opinion that the Shares, when issued and outstanding pursuant to the terms of the Plan or the Options, as applicable, will be legally and validly issued, fully paid and non-assessable.

We consent to the use of this opinion as an exhibit to the Registration Statement and further consent to all references to us in the Registration Statement and in any amendment thereto. In giving such consent, we do not hereby admit that we are acting within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Securities and Exchange Commission thereunder.

Very truly yours,

/s/ Morrison & Foerster LLP

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Morrison & Foerster LLP

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the Catalyst Biosciences, Inc. 2004 Stock Plan, as amended, and Certain Stand-Alone Stock Option Grants between Catalyst Biosciences, Inc. and certain named individuals, of our reports dated March 16, 2015, with respect to the financial statements of Targacept, Inc. and the effectiveness of internal control over financial reporting of Targacept, Inc. included in Catalyst Biosciences, Inc.'s (formerly known as Targacept, Inc.) Annual Report (Form 10-K) for the year ended December 31, 2014, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Raleigh, North Carolina  
August 20, 2015

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in the Registration Statement on Form S-8 to be filed on or about August 21, 2015 of our report dated May 22, 2015, on our audits of the financial statements of Catalyst Biosciences, Inc. (“Predecessor Catalyst”), now a wholly-owned subsidiary of Catalyst Biosciences, Inc. (formerly, Targacept, Inc.), as of December 31, 2014 and 2013 and for each of the years in the two-year period ended December 31, 2014, included in the Form 424B3 filed on July 28, 2015 with the Securities and Exchange Commission. Our report includes an explanatory paragraph about the existence of substantial doubt concerning Predecessor Catalyst’s ability to continue as a going concern.

/s/ EisnerAmper LLP

Iselin, New Jersey  
August 21, 2015

## CATALYST BIOSCIENCES, INC.

## 2004 STOCK PLAN

1. Purposes of the Plan. The purposes of this Plan are to attract and retain the best available personnel for positions of substantial responsibility, to provide additional incentive to Employees, Directors and Consultants and to promote the success of the Company's business. Options granted under the Plan may be Incentive Stock Options or Nonstatutory Stock Options, as determined by the Administrator at the time of grant. Stock Purchase Rights may also be granted under the Plan.

2. Definitions. As used herein, the following definitions shall apply:

(a) "Administrator" means the Board or any of its Committees as shall be administering the Plan in accordance with Section 4 hereof.

(b) "Applicable Laws" means the requirements relating to the administration of stock option plans under U.S. state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws of any other country or jurisdiction where Options or Stock Purchase Rights are granted under the Plan.

(c) "Board" means the Board of Directors of the Company.

(d) "Change in Control" means the occurrence of any of the following events:

(i) Any "person" (as such term is used in Sections 13(d) and 14(d) of the Exchange Act) becomes the "beneficial owner" (as defined in Rule 13d-3 of the Exchange Act), directly or indirectly, of securities of the Company representing fifty percent (50%) or more of the total voting power represented by the Company's then outstanding voting securities; or

(ii) The consummation of the sale or disposition by the Company of all or substantially all of the Company's assets; or

(iii) The consummation of a merger or consolidation of the Company with any other corporation, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or its parent) at least fifty percent (50%) 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.

(e) "Code" means the Internal Revenue Code of 1986, as amended.

(f) "Committee" means a committee of Directors or of other individuals satisfying Applicable Laws appointed by the Board in accordance with Section 4 hereof

(g) "Common Stock" means the Common Stock of the Company.

(h) "Company" means Catalyst Biosciences, Inc., a Delaware corporation.

(i) "Consultant" means any person who is engaged by the Company or any Parent or Subsidiary to render consulting or advisory services to such entity.

(j) "Director" means a member of the Board.

(k) “Disability” means total and permanent disability as defined in Section 22(e)(3) of the Code.

(l) “Employee” means any person, including officers and Directors, employed by the Company or any Parent or Subsidiary of the Company. Neither service as a Director nor payment of a director’s fee by the Company shall be sufficient to constitute “employment” by the Company

(m) “Exchange Act” means the Securities Exchange Act of 1934, as amended.

(n) “Fair Market Value” means, as of any date, the value of Common Stock determined as follows

(i) If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the Nasdaq National Market or The Nasdaq SmallCap Market of The Nasdaq Stock Market, its Fair Market Value shall be the closing sales price for such stock (or the closing bid, if no sales were reported) as quoted on such exchange or system on the day of determination, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable;

(ii) If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, its Fair Market Value shall be the mean between the high bid and low asked prices for the Common Stock on the day of determination; or

(iii) In the absence of an established market for the Common Stock, the Fair Market Value thereof shall be determined in good faith by the Administrator.

(o) “Incentive Stock Option” means an Option intended to qualify as an incentive stock option within the meaning of Section 422 of the Code.

(p) “Nonstatutory Stock Option” means an Option not intended to qualify as an Incentive Stock Option.

(q) “Option” means a stock option granted pursuant to the Plan.

(r) “Option Agreement” means a written or electronic agreement between the Company and an Optionee evidencing the terms and conditions of an individual Option grant. The Option Agreement is subject to the terms and conditions of the Plan.

(s) “Optioned Stock” means the Common Stock subject to an Option or a Stock Purchase Right.

(t) “Optionee” means the holder of an outstanding Option or Stock Purchase Right granted under the Plan.

(u) “Parent” means a “parent corporation,” whether now or hereafter existing, as defined in Section 424(e) of the Code.

(v) “Plan” means this 2004 Stock Plan.

(w) “Restricted Stock” means Shares issued pursuant to a Stock Purchase Right or Shares of restricted stock issued pursuant to an Option.



(x) “Restricted Stock Purchase Agreement” means a written agreement between the Company and the Optionee evidencing the terms and restrictions applying to Shares purchased under a Stock Purchase Right. The Restricted Stock Purchase Agreement is subject to the terms and conditions of the Plan and the notice of grant.

(y) “Securities Act” means the Securities Act of 1933, as amended.

(z) “Service Provider” means an Employee, Director or Consultant.

(aa) “Share” means a share of the Common Stock, as adjusted in accordance with Section 13 below.

(bb) “Stock Purchase Right” means a right to purchase Common Stock pursuant to Section 11 below.

(cc) “Subsidiary” means a “subsidiary corporation,” whether now or hereafter existing as defined in Section 424(f) of the Code.

3. Stock Subject to the Plan. Subject to the provisions of Section 13 of the Plan, the maximum aggregate number of Shares that may be subject to Options or Stock Purchase Rights and sold under the Plan is 3,791,667 Shares. The Shares may be authorized but unissued, or reacquired Common Stock.

If an Option or Stock Purchase Right expires or becomes unexercisable without having been exercised in full, the unpurchased Shares that were subject thereto shall become available for future grant or sale under the Plan (unless the Plan has terminated). However, Shares that have actually been issued under the Plan, upon exercise of either an Option or Stock Purchase Right, shall not be returned to the Plan and shall not become available for future distribution under the Plan, except that if unvested Shares of Restricted Stock are repurchased by the Company at their original purchase price, such Shares shall become available for future grant under the Plan.

#### 4. Administration of the Plan.

(a) Administrator. The Plan shall be administered by the Board or a Committee appointed by the Board, which Committee shall be constituted to comply with Applicable Laws.

(b) Powers of the Administrator. Subject to the provisions of the Plan and, in the case of a Committee, the specific duties delegated by the Board to such Committee, and subject to the approval of any relevant authorities, the Administrator shall have the authority in its discretion:

(i) to determine the Fair Market Value;

(ii) to select the Service Providers to whom Options and Stock Purchase Rights may from time to time be granted hereunder;

(iii) to determine the number of Shares to be covered by each such award granted hereunder;

(iv) to approve forms of agreement for use under the Plan;

(v) to determine the terms and conditions of any Option or Stock Purchase Right granted hereunder. Such terms and conditions include, but are not limited to, the exercise price, the

time or times when Options or Stock Purchase Rights may be exercised (which may be based on performance criteria), any vesting acceleration or waiver of forfeiture restrictions, and any restriction or limitation regarding any Option or Stock Purchase Right or the Common Stock relating thereto, based in each case on such factors as the Administrator, in its sole discretion, shall determine;

(vi) to prescribe, amend and rescind rules and regulations relating to the Plan, including rules and regulations relating to sub-plans established for the purpose of satisfying applicable foreign laws;

(vii) to allow Optionees to satisfy withholding tax obligations by electing to have the Company withhold from the Shares to be issued upon exercise of an Option or Stock Purchase Right that number of Shares having a Fair Market Value equal to the minimum amount required to be withheld. The Fair Market Value of the Shares to be withheld shall be determined on the date that the amount of tax to be withheld is to be determined. All elections by Optionees to have Shares withheld for this purpose shall be made in such form and under such conditions as the Administrator may deem necessary or advisable; and

(viii) to construe and interpret the terms of the Plan and Options granted pursuant to the Plan.

(c) Effect of Administrator's Decision. All decisions, determinations and interpretations of the Administrator shall be final and binding on all Optionees.

5. Eligibility. Nonstatutory Stock Options and Stock Purchase Rights may be granted to Service Providers. Incentive Stock Options may be granted only to Employees,

#### 6. Limitations.

(a) Incentive Stock Option Limit. Each Option shall be designated in the Option Agreement as either an Incentive Stock Option or a Nonstatutory Stock Option. However, notwithstanding such designation, to the extent that the aggregate Fair Market Value of the Shares with respect to which Incentive Stock Options are exercisable for the first time by the Optionee during any calendar year (under all plans of the Company and any Parent or Subsidiary) exceeds \$100,000 such Options shall be treated as Nonstatutory Stock Options. For purposes of this Section 6(a). Incentive Stock Options shall be taken into account in the order in which they were granted. The Fair Market Value of the Shares shall be determined as of the time the Option with respect to such Shares is granted.

(b) At-Will Employment. Neither the Plan nor any Option or Stock Purchase Right shall confer upon any Optionee any right with respect to continuing the Optionee's relationship as a Service Provider with the Company, nor shall it interfere in any way with his or her right or the Company's right to terminate such relationship at any time, with or without cause, and with or without notice.

7. Term of Plan. Subject to stockholder approval in accordance with Section 19, the Plan shall become effective upon its adoption by the Board. Unless sooner terminated under Section 15, it shall continue in effect for a term of ten (10) years from the later of (i) the effective date of the Plan, or (11) the earlier of the most recent Board or stockholder approval of an increase in the number of Shares reserved for issuance under the Plan.

8. Term of Option. The term of each Option shall be stated in the Option Agreement; provided, however, that the term shall be no more than ten (10) years from the date of grant thereof. In the case of an Incentive Stock Option granted to an Optionee who, at the time the Option is granted, owns

stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the term of the Option shall be five (5) years from the date of grant or such shorter term as may be provided in the Option Agreement.

9. Option Exercise Price and Consideration.

(a) Exercise Price. The per share exercise price for the Shares to be issued upon exercise of an Option shall be such price as is determined by the Administrator, but shall be subject to the following:

(i) In the case of an Incentive Stock Option

(A) granted to an Employee who, at the time of grant of such Option, owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the exercise price shall be no less than 110% of the Fair Market Value per Share on the date of grant.

(B) granted to any other Employee, the per Share exercise price shall be no less than 100% of the Fair Market Value per Share on the date of grant.

(ii) In the case of a Nonstatutory Stock Option

(A) granted to a Service Provider who, at the time of grant of such Option, owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the exercise price shall be no less than 110% of the Fair Market Value per Share on the date of grant.

(B) granted to any other Service Provider, the per Share exercise price shall be no less than 85% of the Fair Market Value per Share on the date of grant.

(iii) Notwithstanding the foregoing, Options may be granted with a per Share exercise price other than as required above pursuant to a merger or other corporate transaction.

(b) Forms of Consideration. The consideration to be paid for the Shares to be issued upon exercise of an Option, including the method of payment, shall be determined by the Administrator (and, in the case of an Incentive Stock Option, shall be determined at the time of grant). Such consideration may consist of, without limitation, (i) cash, (ii) check, (iii) promissory note, (iv) other Shares, provided Shares that were acquired directly from the Company (A) have been owned by the Optionee for more than six (6) months on the date of surrender, and (B) have a Fair Market Value on the date of surrender equal to the aggregate exercise price of the Shares as to which such Option shall be exercised, (v) consideration received by the Company under a cashless exercise program implemented by the Company in connection with the Plan, or (vi) any combination of the foregoing methods of payment. In making its determination as to the type of consideration to accept, the Administrator shall consider if acceptance of such consideration may be reasonably expected to benefit the Company.

10. Exercise of Option.

(a) Procedure for Exercise, Rights as a Stockholder. Any Option granted hereunder shall be exercisable according to the terms hereof at such times and under such conditions as determined by the Administrator and set forth in the Option Agreement. An Option may not be exercised for a fraction of a Share. Except in the case of Options granted to officers, Directors and Consultants, Options shall become exercisable at a rate of no less than 20% per year over five (5) years from the date the Options are granted.

An Option shall be deemed exercised when the Company receives (i) written or electronic notice of exercise (in accordance with the Option Agreement) from the person entitled to exercise the Option, and (ii) full payment for the Shares with respect to which the Option is exercised. Full payment may consist of any consideration and method of payment authorized by the Administrator and permitted by the Option Agreement and the Plan. Shares issued upon exercise of an Option shall be issued in the name of the Optionee or, if requested by the Optionee, in the name of the Optionee and his or her spouse. Until the Shares are issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder shall exist with respect to the Shares, notwithstanding the exercise of the Option. The Company shall issue (or cause to be issued) such Shares promptly after the Option is exercised. No adjustment will be made for a dividend or other right for which the record date is prior to the date the Shares are issued, except as provided in Section 13 of the Plan.

Exercise of an Option in any manner shall result in a decrease in the number of Shares thereafter available for sale under the Option, by the number of Shares as to which the Option is exercised.

(b) Termination of Relationship as a Service Provider. If an Optionee ceases to be a Service Provider, such Optionee may exercise his or her Option within thirty (30) days of termination, or such longer period of time as specified in the Option Agreement, to the extent that the Option is vested on the date of termination (but in no event later than the expiration of the term of the Option as set forth in the Option Agreement). If, on the date of termination, the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall revert to the Plan. If, after termination, the Optionee does not exercise his or her Option within the time specified by the Administrator, the Option shall terminate, and the Shares covered by such Option shall revert to the Plan.

(c) Disability of Optionee. If an Optionee ceases to be a Service Provider as a result of the Optionee's Disability, the Optionee may exercise his or her Option within six (6) months of termination, or such longer period of time as specified in the Option Agreement, to the extent the Option is vested on the date of termination (but in no event later than the expiration of the term of such Option as set forth in the Option Agreement). If, on the date of termination, the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall revert to the Plan. If, after termination, the Optionee does not exercise his or her Option within the time specified herein, the Option shall terminate, and the Shares covered by such Option shall revert to the Plan.

(d) Death of Optionee. If an Optionee dies while a Service Provider, the Option may be exercised within six (6) months following Optionee's death, or such longer period of time as specified in the Option Agreement, to the extent that the Option is vested on the date of death (but in no event later than the expiration of the term of such Option as set forth in the Option Agreement) by the Optionee's designated beneficiary, provided such beneficiary has been designated prior to Optionee's death in a form acceptable to the Administrator. If no such beneficiary has been designated by the Optionee, then such Option may be exercised by the personal representative of the Optionee's estate or by the person(s) to whom the Option is transferred pursuant to the Optionee's will or in accordance with the laws of descent and distribution. If, at the time of death, the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall immediately revert to the Plan. If the Option is not so exercised within the time specified herein, the Option shall terminate and the Shares covered by such Option shall revert to the Plan.

(e) Leaves of Absence.

(i) Unless the Administrator provides otherwise, vesting of Options granted hereunder to officers and Directors shall be suspended during any unpaid leave of absence.

(ii) A Service Provider shall not cease to be an Employee in the case of (A) any leave of absence approved by the Company or (B) transfers between locations of the Company or between the Company, its Parent, any Subsidiary, or any successor.

(iii) For purposes of Incentive Stock Options, no such leave may exceed ninety (90) days, unless reemployment upon expiration of such leave is guaranteed by statute or contract. If reemployment upon expiration of a leave of absence approved by the Company is not so guaranteed, then three (3) months following the 91st day of such leave, any Incentive Stock Option held by the Optionee shall cease to be treated as an Incentive Stock Option and shall be treated for tax purposes as a Nonstatutory Stock Option.

11. Stock Purchase Rights.

(a) Rights to Purchase. Stock Purchase Rights may be issued either alone, in addition to, or in tandem with other awards granted under the Plan and/or cash awards made outside of the Plan. After the Administrator determines that it will offer Stock Purchase Rights under the Plan, it shall advise the offeree in writing or electronically of the terms, conditions and restrictions related to the offer, including the number of Shares that such person shall be entitled to purchase, the price to be paid, and the time within which such person must accept such offer. The terms of the offer shall comply in all respects with Section 260.140.42 of Title 10 of the California Code of Regulations. The offer shall be accepted by execution of a Restricted Stock Purchase Agreement in the form determined by the Administrator.

(b) Repurchase Option. Unless the Administrator determines otherwise, the Restricted Stock Purchase Agreement shall grant the Company a repurchase option exercisable within 90 days of the voluntary or involuntary termination of the purchaser's service with the Company for any reason (including death or disability). The purchase price for Shares repurchased pursuant to the Restricted Stock Purchase Agreement shall be the original price paid by the purchaser and may be paid by cancellation of any indebtedness of the purchaser to the Company. The repurchase option shall lapse at such rate as the Administrator may determine. Except with respect to Shares purchased by officers, Directors and Consultants, the repurchase option shall in no case lapse at a rate of less than 20% per year over five (5) years from the date of purchase.

(c) Other Provisions. The Restricted Stock Purchase Agreement shall contain such other terms, provisions and conditions not inconsistent with the Plan as may be determined by the Administrator in its sole discretion.

(d) Rights as a Stockholder. Once the Stock Purchase Right is exercised, the purchaser shall have rights equivalent to those of a stockholder and shall be a stockholder when his or her purchase is entered upon the records of the duly authorized transfer agent of the Company. No adjustment shall be made for a dividend or other right for which the record date is prior to the date the Stock Purchase Right is exercised, except as provided in Section 13 of the Plan.

12. Limited Transferability of Options and Stock Purchase Rights. Unless determined otherwise by the Administrator, Options and Stock Purchase Rights may not be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner other than by will or the laws of descent and distribution, and may be exercised during the lifetime of the Optionee, only by the Optionee. If the Administrator in its sole discretion makes an Option or Stock Purchase Right transferable, such Option or

Stock Purchase Right may only be transferred (i) by will, (ii) by the laws of descent and distribution, or (iii) to family members (within the meaning of Rule 701 of the Securities Act) through gifts or domestic relations orders, as permitted by Rule 701 of the Securities Act.

13. Adjustments; Dissolution or Liquidation, Merger or Change in Control.

(a) Adjustments. In the event that any dividend or other distribution (whether in the form of cash, Shares, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of Shares or other securities of the Company, or other change in the corporate structure of the Company affecting the Shares occurs, the Administrator, in order to prevent diminution or enlargement of the benefits or potential benefits intended to be made available under the Plan, may (in its sole discretion) adjust the number and class of Shares that may be delivered under the Plan and/or the number, class, and price of Shares covered by each outstanding Option or Stock Purchase Right; provided, however, that the Administrator shall make such adjustments to the extent required by Section 15102(o) of the California Corporations Code.

(b) Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, the Administrator shall notify each Optionee as soon as practicable prior to the effective date of such proposed transaction. To the extent it has not been previously exercised, an Option or Stock Purchase Right will terminate immediately prior to the consummation of such proposed action.

(c) Merger or Change in Control. In the event of a merger of the Company with or into another corporation, or a Change in Control, each outstanding Option and Stock Purchase Right shall 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 or Stock Purchase Right, then the Administrator may determine that the Optionee shall fully vest in and have the right to exercise the Option or Stock Purchase Right as to all of the Optioned Stock, including Shares as to which it would not otherwise be vested or exercisable. If an Option or Stock Purchase Right becomes fully vested and exercisable in lieu of assumption or substitution in the event of a merger or Change in Control, the Administrator shall notify the Optionee in writing or electronically that the Option or Stock Purchase Right shall be fully exercisable for a period of fifteen (15) days from the date of such notice, and the Option or Stock Purchase Right shall terminate upon expiration of such period. For the purposes of this paragraph, the Option or Stock Purchase Right shall be considered assumed if, following the merger or Change in Control, the option or right confers the right to purchase or receive, for each Share of Optioned Stock subject to the Option or Stock Purchase Right immediately prior to the merger or Change in Control, the consideration (whether stock, cash, or other securities or property) received in the merger or Change in Control by holders of Common Stock for each Share held on the effective date of the transaction (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding Shares); provided, however, that if such consideration received in the merger or Change in Control is not solely common stock of the successor corporation or its Parent, the Administrator may, with the consent of the successor corporation, provide for the consideration to be received upon the exercise of the Option or Stock Purchase Right, for each Share of Optioned Stock subject to the Option or Stock Purchase Right, to be solely common stock of the successor corporation or its Parent equal in fair market value to the per share consideration received by holders of common stock in the merger or Change in Control.

14. Time of Granting Options and Stock Purchase Rights. The date of grant of an Option or Stock Purchase Right shall, for all purposes, be the date on which the Administrator makes the determination granting such Option or Stock Purchase Right, or such later date as is determined by the Administrator. Notice of the determination shall be given to each Service Provider to whom an Option or Stock Purchase Right is so granted within a reasonable time after the date of such grant.

15. Amendment and Termination of the Plan.

(a) Amendment and Termination. The Board may at any time amend, alter, suspend or terminate the Plan.

(b) Stockholder Approval. The Board shall obtain stockholder approval of any Plan amendment to the extent necessary and desirable to comply with Applicable Laws.

(c) Effect of Amendment or Termination. No amendment, alteration, suspension or termination of the Plan shall impair the rights of any Optionee, unless mutually agreed otherwise between the Optionee and the Administrator, which agreement must be in writing and signed by the Optionee and the Company. Termination of the Plan shall not affect the Administrator's ability to exercise the powers granted to it hereunder with respect to Options granted under the Plan prior to the date of such termination

16. Conditions Upon Issuance of Shares.

(a) Legal Compliance. Shares shall not be issued pursuant to the exercise of an Option or Stock Purchase Right unless the exercise of such Option or Stock Purchase Right and the issuance and delivery of such Shares shall comply with Applicable Laws and shall be further subject to the approval of counsel for the Company with respect to such compliance.

(b) Investment Representations. As a condition to the exercise of an Option or Stock Purchase Right, the Administrator may require the person exercising such Option or Stock Purchase Right to represent and warrant at the time of any such exercise that the Shares are being purchased only for investment and without any present intention to sell or distribute such Shares if, in the opinion of counsel for the Company, such a representation is required.

17. Inability to Obtain Authority. The inability of the Company to obtain authority from any regulatory body having jurisdiction, which authority is deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares hereunder, shall relieve the Company of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority shall not have been obtained.

18. Reservation of Shares. The Company, during the term of this Plan, shall at all times reserve and keep available such number of Shares as shall be sufficient to satisfy the requirements of the Plan.

19. Stockholder Approval. The Plan shall be subject to approval by the stockholders of the Company within twelve (12) months after the date the Plan is adopted. Such stockholder approval shall be obtained in the degree and manner required under Applicable Laws.

20. Information to Optionees. The Company shall provide to each Optionee and to each individual who acquires Shares pursuant to the Plan, not less frequently than annually during the period such Optionee has one or more Options or Stock Purchase Rights outstanding, and, in the case of an individual who acquires Shares pursuant to the Plan, during the period such individual owns such Shares, copies of annual financial statements. The Company shall not be required to provide such statements to key employees whose duties in connection with the Company assure their access to equivalent information.

**2015 DECLARATION OF AMENDMENT TO  
2004 STOCK PLAN  
OF  
CATALYST BIOSCIENCES, INC.**

THIS 2015 DECLARATION OF AMENDMENT (the "Amendment"), is made effective as of the 20<sup>th</sup> day of August, 2015, by CATALYST BIOSCIENCES, INC. (formerly known as Targacept, Inc.), a Delaware corporation ("Catalyst" or the "Corporation"), to the 2004 Stock Plan (the "Plan") of Catalyst Biosciences, Inc. (the "2004 Plan").

R E C I T A L S:

WHEREAS, pursuant to that certain Agreement and Plan of Merger among the Corporation, Talos Merger Sub, Inc., a Delaware corporation and wholly-owned subsidiary of the Corporation, and Catalyst Biosciences, Inc. ("Predecessor Catalyst") dated as of March 5, 2015 and amended on May 6, 2015 and May 13, 2015 (the "Merger Agreement"), Predecessor Catalyst has become a wholly-owned subsidiary of the Corporation and the Corporation has become the successor to Predecessor Catalyst (such transaction, defined as the "Merger" in the Merger Agreement, being referred to herein as the "Merger") as of the Effective Time, as defined in the Merger Agreement (the "Merger Effective Date"); and

WHEREAS, although new awards may no longer be granted under the Plan, certain awards remain outstanding under the Plan; and

WHEREAS, in connection with the Merger, the Corporation agreed to assume outstanding equity awards under the Plan, pursuant to the terms of the Merger Agreement; and

WHEREAS, the Board of Directors of the Corporation has deemed it advisable to amend the Plan to reflect the effect of the Merger, as provided herein; and

WHEREAS, the Corporation desires to evidence such amendments by this 2015 Declaration of Amendment.

NOW, THEREFORE, BE IT RESOLVED, that the Plan shall be and hereby is amended as follows:

1. References to the "Company." Effective on and after the Merger Effective Date, references to the "Company," including but not limited to the definition of the term contained in Section 2, shall refer to Catalyst Biosciences, Inc. (formerly, Targacept, Inc.), unless the context otherwise requires, as determined by the Administrator, or any successor thereto.

2. References to "Common Stock." Effective on and after the Merger Effective Date, references to the "Common Stock," including but not limited to the definition of the term contained in Section 2, shall refer to the common stock, \$.001 par value per share, of the Corporation.

3. References to the "Board" and the "Committee." Effective on and after the Merger Effective Date, references to the "Board" and the "Committee," including but not limited to the definition of such terms contained in Section 2, shall refer to the Board of Directors of the Corporation and the Compensation Committee of the Board of Directors of the Corporation shall be the Committee appointed by the Board as provided in Section 4(a), respectively.



4. Amendment to Definition of “Director” in Section 2(j). The definition of Director as set forth in Section 2(j) is hereby amended to read as follows:

“(j) ‘Director’ means a member of the Board, or a member of the Board of Directors of any Parent or Subsidiary.”

5. Amendment to Section 3. The first sentence of Section 3 (Stock Subject to the Plan) is hereby amended by adding the following proviso at the end thereof:

“provided, however, that such aggregate number of shares shall be adjusted as of the Merger Effective Date by multiplying such number of shares by the Exchange Ratio (as defined in the Merger Agreement) and rounding the resulting number down to the nearest whole number of shares, or as may otherwise be necessary to comply with Section 1.5(b) of the Merger Agreement or Applicable Laws.”

6. New Section 21. New Section 21 (“Special Definitions”) is hereby added immediately after Section 20:

“21. Special Definitions. On and after the Merger Effective Date, as used herein, the following definitions shall apply in addition to the terms defined in Section 2:

(a) ‘Merger Agreement’ means the Agreement and Plan of Merger among Targacept, Inc., Talos Merger Sub, Inc., a Delaware corporation and wholly-owned subsidiary of Targacept, Inc., and Catalyst Biosciences, Inc. dated as of March 5, 2015, as amended on May 6, 2015 and May 13, 2015.

(b) ‘Merger Effective Date’ means the ‘Effective Time’, as such term is defined in the Merger Agreement.”

7. Continued Effect. Except as set forth herein, the Plan shall remain unchanged and in full force and effect.

Corporate Copy   
 Optionee Copy   
 Attorney Copy

CATALYST BIOSCIENCES, INC.

STOCK OPTION AGREEMENT — EARLY EXERCISE

Unless otherwise defined herein, the terms defined in Schedule A, attached hereto and incorporated herein by reference, shall have the same defined meanings in this Stock Option Agreement.

I. NOTICE OF STOCK OPTION GRANT

Name: **Hansoo Keyoung, M.D., Ph.D.**

Address:

The undersigned Optionee has been granted an Option to purchase Common Stock of the Company, subject to the terms and conditions of this Option Agreement, as follows:

Grant Number:	<b>424</b>
Date of Grant	<b>February 20, 2014</b>
Vesting Commencement Date	<b>December 24, 2013</b>
Exercise Price per Share	<b>\$0.29</b>
Total Number of Shares Granted	<b>200,000</b>
Total Exercise Price	<b>\$58,000.00</b>
Type of Option:	<b>Non-Statutory (NSO)</b>
Term/Expiration Date:	<b>February 19, 2024</b>

Vesting Schedule:

This Option shall be exercisable, in whole or in part, according to the following vesting schedule:

1/12th of the Shares subject to the Option shall vest on each monthly anniversary of the Vesting Commencement Date for 12 months, subject to the service provider being employed by the Company on each such date.

Termination Period:

This Option shall be exercisable for three (3) months after Optionee ceases to be a Service Provider. Upon Optionee's death or Disability, this Option may be exercised for one (1) year after Optionee ceases to be a Service Provider. In no event may Optionee exercise this Option after the Term/Expiration Date as provided above.

## II. AGREEMENT

1. Grant of Option. The Company hereby grants to the Optionee named in the Notice of Stock Option Grant (the "Optionee"), an option (the "Option") to purchase the number of Shares set forth in the Notice of Stock Option Grant, at the exercise price per Share set forth in the Notice of Stock Option Grant (the "Exercise Price"), and subject to the terms and conditions of this Agreement.

2. Exercise of Option. This Option shall be exercisable during its term in accordance with the provisions of Section 5 of Schedule A as follows:

(a) Right to Exercise.

(i) Subject to subsections 2(a)(ii) and 2(a)(iii) below, this Option shall be exercisable cumulatively according to the vesting schedule set forth in the Notice of Stock Option Grant. Alternatively, at the election of the Optionee, this Option may be exercised in whole or in part at any time as to Shares that have not yet vested. Vested Shares shall not be subject to the Company's repurchase right (as set forth in the Restricted Stock Purchase Agreement, attached hereto as Exhibit C-1).

(ii) As a condition to exercising this Option for unvested Shares, the Optionee shall execute the Restricted Stock Purchase Agreement.

(iii) This Option may not be exercised for a fraction of a Share.

(b) Method of Exercise. This Option shall be exercisable by delivery of an exercise notice in the form attached as Exhibit A (the "Exercise Notice"), which shall state the election to exercise the Option, the number of Shares with respect to which the Option is being exercised, and such other representations and agreements as may be required by the Company. The Exercise Notice shall be accompanied by payment of the aggregate Exercise Price as to all Exercised Shares. This Option shall be deemed to be exercised upon receipt by the Company of such fully executed Exercise Notice accompanied by the aggregate Exercise Price.

No Shares shall be issued pursuant to the exercise of an Option unless such issuance and such exercise comply with Applicable Laws. Assuming such compliance, for income tax purposes the Shares shall be considered transferred to the Optionee on the date on which the Option is exercised with respect to such Shares.

3. Optionee's Representations. In the event the Shares have not been registered under the Securities Act of 1933, as amended, at the time this Option is exercised, the Optionee shall, if required by the Company, concurrently with the exercise of all or any portion of this Option, deliver to the Company his or her Investment Representation Statement in the form attached hereto as Exhibit B.

4. Lock-Up Period. Optionee hereby agrees that Optionee shall not offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any Common Stock (or other securities) of the Company or enter into any swap, hedging or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of any Common Stock (or other securities) of the Company held by Optionee (other than those included in the registration) for a period specified by the representative of the underwriters of Common Stock (or other securities) of the Company not to exceed one hundred eighty (180) days following the effective date of any registration statement of the Company filed under the Securities Act.

Optionee agrees to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriter which are consistent with the foregoing or which are necessary to give further effect thereto. In addition, if requested by the Company or the representative of the underwriters of Common Stock (or other securities) of the Company, Optionee shall provide, within

ten (10) days of such request, such information as may be required by the Company or such representative in connection with the completion of any public offering of the Company's securities pursuant to a registration statement filed under the Securities Act. The obligations described in this Section shall not apply to a registration relating solely to employee benefit plans on Form S-1 or Form S-8 or similar forms that may be promulgated in the future, or a registration relating solely to a Commission Rule 145 transaction on Form S-4 or similar forms that may be promulgated in the future. The Company may impose stop-transfer instructions with respect to the shares of Common Stock (or other securities) subject to the foregoing restriction until the end of said one hundred eighty (180) day period. Optionee agrees that any transferee of the Option or shares acquired pursuant to the Option shall be bound by this Section.

5. Method of Payment. Payment of the aggregate Exercise Price shall be by any of the following, or a combination thereof, at the election of the Optionee:

(a) cash, check or promissory note;

(b) consideration received by the Company under a formal cashless exercise program adopted by the Company; or

(c) surrender of other Shares which, (i) in the case of Shares acquired from the Company, either directly or indirectly, have been owned by the Optionee for more than six (6) months on the date of surrender, and (ii) have a Fair Market Value on the date of surrender equal to the aggregate Exercise Price of the Exercised Shares.

6. Restrictions on Exercise. This Option may not be exercised if the issuance of such Shares upon such exercise or the method of payment of consideration for such shares would constitute a violation of any Applicable Law.

7. Non-Transferability of Option. This Option may not be transferred in any manner otherwise than by will or by the laws of descent or distribution or as set forth in Schedule A and may be exercised during the lifetime of Optionee only by Optionee. The terms of this Option Agreement shall be binding upon the executors, administrators, heirs, successors and assigns of the Optionee.

8. Term of Option. This Option may be exercised only within the term set out in the Notice of Stock Option Grant, and may be exercised during such term only in accordance with the terms of this Option.

9. Tax Obligations.

(a) Withholding Taxes. Optionee agrees to make appropriate arrangements with the Company (or the Parent or Subsidiary employing or retaining Optionee) for the satisfaction of all Federal, state, local and foreign income and employment tax withholding requirements applicable to the Option exercise. Optionee acknowledges and agrees that the Company may refuse to honor the exercise and refuse to deliver Shares if such withholding amounts are not delivered at the time of exercise.

10. Amendments. No modification of or amendment to this Agreement shall be effective unless in writing and signed by each of the parties.

11. Entire Agreement; Governing Law. This Option Agreement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter hereof, and may not be modified adversely to the Optionee's interest except by means of a writing signed by the Company and Optionee. This agreement is governed by the internal substantive laws but not the choice of law rules of California.

12. No Guarantee of Continued Service. OPTIONEE ACKNOWLEDGES AND AGREES THAT THE VESTING OF SHARES PURSUANT TO THE VESTING SCHEDULE HEREOF IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER AT THE WILL OF THE COMPANY (NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS OPTION OR ACQUIRING SHARES HEREUNDER). OPTIONEE FURTHER ACKNOWLEDGES AND AGREES THAT THIS AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND SHALL NOT INTERFERE IN ANY WAY WITH OPTIONEE'S RIGHT OR THE COMPANY'S RIGHT TO TERMINATE OPTIONEE'S RELATIONSHIP AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE.

Optionee acknowledges receipt of a copy of Schedule A and represents that he or she is familiar with the terms and provisions thereof, and hereby accepts this Option subject to all of the terms and provisions thereof. Optionee has reviewed Schedule A and this Option in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Option and fully understands all provisions of the Option. Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Company upon any questions arising under Schedule A or this Option. Optionee further agrees to notify the Company upon any change in the residence address indicated below.

OPTIONEE:

CATALYST BIOSCIENCES, INC.

/s/ Hansoo Keyoung, M.D., Ph.D.  
(Signature)

By: /s/ Nassim Usman  
Nassim Usman, Chief Executive Officer

Address:  
\_\_\_\_\_  
\_\_\_\_\_

Address:  
260 Littlefield Avenue  
South San Francisco, CA 94080

## SCHEDULE A

### TERMS AND CONDITIONS

1. Definitions. As used herein, the following definitions shall apply:

(a) “Applicable Laws” means the requirements relating to the administration of stock option plans under U.S. state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws of any other country or jurisdiction where Options are granted under this Schedule A.

(b) “Board” means the Board of Directors of the Company.

(c) “Change in Control” means the occurrence of any of the following events:

(i) Any “person” (as such term is used in Sections 13(d) and 14(d) of the Exchange Act) becomes the “beneficial owner” (as defined in Rule 13d-3 of the Exchange Act), directly or indirectly, of securities of the Company representing fifty percent (50%) or more of the total voting power represented by the Company’s then outstanding voting securities; or

(ii) The consummation of the sale or disposition by the Company of all or substantially all of the Company’s assets; or

(iii) The consummation of a merger or consolidation of the Company with any other corporation, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or its parent) at least fifty percent (50%) 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.

(d) “Code” means the Internal Revenue Code of 1986, as amended.

(e) “Common Stock” means the Common Stock of the Company.

(f) “Company” means Catalyst Biosciences, Inc., a Delaware corporation.

(g) “Consultant” means any person who is engaged by the Company or any Parent or Subsidiary to render consulting or advisory services to such entity.

(h) “Director” means a member of the Board.

(i) “Disability” means total and permanent disability as defined in Section 22(e)(3) of the Code.

(j) “Employee” means any person, including officers and Directors, employed by the Company or any Parent or Subsidiary of the Company. Neither service as a Director nor payment of a director’s fee by the Company shall be sufficient to constitute “employment” by the Company.

(k) “Exchange Act” means the Securities Exchange Act of 1934, as amended.

(l) “Fair Market Value” means, as of any date, the value of Common Stock determined as follows.

(i) If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the Nasdaq National Market or The Nasdaq SmallCap Market of The Nasdaq Stock Market, its Fair Market Value shall be the closing sales price for such stock (or the closing bid, if no sales were reported) as quoted on such exchange or system on the day of determination, as reported in *The Wall Street Journal* or such other source as the Board deems reliable;

(ii) If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, its Fair Market Value shall be the mean between the high bid and low asked prices for the Common Stock on the day of determination; or

(iii) In the absence of an established market for the Common Stock, the Fair Market Value thereof shall be determined in good faith by the Company.

(m) “Nonstatutory Stock Option” means an Option not intended to qualify as an incentive stock option within the meaning of Section 422 of the Code.

(n) “Option” means a stock option granted pursuant to this Schedule A.

(o) “Option Agreement” means a written or electronic agreement between the Company and an Optionee evidencing the terms and conditions of an individual Option grant. The Option Agreement is subject to the terms and conditions of this Schedule A.

(p) “Optioned Stock” means the Common Stock subject to an Option.

(q) “Optionee” means the holder of an outstanding Option granted under this Schedule A.

(r) “Parent” means a “parent corporation,” whether now or hereafter existing, as defined in Section 424(e) of the Code.

(s) “Restricted Stock Purchase Agreement” means a written agreement between the Company and the Optionee evidencing the terms and restrictions applying to those shares of Common Stock which have not become vested under the vesting schedule set forth in the Option Agreement. The Restricted Stock Purchase Agreement is subject to the terms and conditions of this Schedule A and the Option Agreement.

(t) “Securities Act” means the Securities Act of 1933, as amended.

(u) “Service Provider” means an Employee, Director or Consultant.

(v) “Share” means a share of the Common Stock, as adjusted in accordance with Section 6 below.

(w) “Subsidiary” means a “subsidiary corporation,” whether now or hereafter existing as defined in Section 424(f) of the Code.

## 2. Limitations.

(a) At-Will Employment. Neither this Schedule A nor the Option Agreement shall confer upon any Optionee any right with respect to continuing the Optionee’s relationship as a Service Provider with the Company, nor shall it interfere in any way with his or her right or the Company’s right to terminate such relationship at any time, with or without cause, and with or without notice.

3. Term of Option. The term of each Option shall be stated in the Option Agreement; provided, however, that the term shall be no more than ten (10) years from the date of grant thereof.

4. Forms of Consideration. The consideration to be paid for the Shares to be issued upon exercise of an Option, including the method of payment, shall be determined by the Board. Such consideration may consist of, without limitation, (i) cash, (ii) check, (iii) promissory note, (iv) other Shares, provided Shares that were acquired directly from the Company (A) have been owned by the Optionee for more than six (6) months on the date of surrender, and (B) have a Fair Market Value on the date of surrender equal to the aggregate exercise price of the Shares as to which such Option shall be exercised, (v) consideration received by the Company under a cashless exercise program implemented by the Company, or (vi) any combination of the foregoing methods of payment. In making its determination as to the type of consideration to accept, the Board shall consider if acceptance of such consideration may be reasonably expected to benefit the Company.

5. Exercise of Option.

(a) Procedure for Exercise, Rights as a Stockholder. Any Option granted hereunder shall be exercisable according to the terms hereof at such times and under such conditions as determined by the Board and set forth in the Option Agreement. An Option may not be exercised for a fraction of a Share.

An Option shall be deemed exercised when the Company receives (i) written or electronic notice of exercise (in accordance with the Option Agreement) from the person entitled to exercise the Option, and (ii) full payment for the Shares with respect to which the Option is exercised. Full payment may consist of any consideration and method of payment authorized by the Board and permitted by the Option Agreement. Shares issued upon exercise of an Option shall be issued in the name of the Optionee or, if requested by the Optionee, in the name of the Optionee and his or her spouse. Until the Shares are issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder shall exist with respect to the Shares, notwithstanding the exercise of the Option. The Company shall issue (or cause to be issued) such Shares promptly after the Option is exercised. No adjustment will be made for a dividend or other right for which the record date is prior to the date the Shares are issued, except as provided in Section 6 of this Schedule A.

Exercise of an Option in any manner shall result in a decrease in the number of Shares thereafter available for sale under the Option, by the number of Shares as to which the Option is exercised.

(b) Termination of Relationship as a Service Provider. If an Optionee ceases to be a Service Provider, such Optionee may exercise his or her Option within thirty (30) days of termination, or such longer period of time as specified in the Option Agreement, to the extent that the Option is vested on the date of termination (but in no event later than the expiration of the term of the Option as set forth in the Option Agreement). If, on the date of termination, the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall revert to the Company. If, after termination, the Optionee does not exercise his or her Option within the time specified by the Company, the Option shall terminate, and the Shares covered by such Option shall revert to the Company.

(c) Disability of Optionee. If an Optionee ceases to be a Service Provider as a result of the Optionee's Disability, the Optionee may exercise his or her Option within six (6) months of termination, or such longer period of time as specified in the Option Agreement, to the extent the Option is vested on the date of termination (but in no event later than the expiration of the term of such Option as set forth in the Option Agreement). If, on the date of termination, the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall revert to the Company. If, after termination, the Optionee does not exercise his or her Option within the time specified herein, the Option shall terminate, and the Shares covered by such Option shall revert to the Company.

(d) Death of Optionee. If an Optionee dies while a Service Provider, the Option may be exercised within six (6) months following Optionee's death, or such longer period of time as specified



in the Option Agreement, to the extent that the Option is vested on the date of death (but in no event later than the expiration of the term of such Option as set forth in the Option Agreement) by the Optionee's designated beneficiary, provided such beneficiary has been designated prior to Optionee's death in a form acceptable to the Board. If no such beneficiary has been designated by the Optionee, then such Option may be exercised by the personal representative of the Optionee's estate or by the person(s) to whom the Option is transferred pursuant to the Optionee's will or in accordance with the laws of descent and distribution. If, at the time of death, the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall immediately revert to the Company. If the Option is not so exercised within the time specified herein, the Option shall terminate and the Shares covered by such Option shall revert to the Company.

6. Adjustments; Dissolution or Liquidation, Merger or Change in Control.

(a) Adjustments. In the event that any dividend or other distribution (whether in the form of cash, Shares, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of Shares or other securities of the Company, or other change in the corporate structure of the Company affecting the Shares occurs, the Board, in order to prevent diminution or enlargement of the benefits or potential benefits intended to be made available pursuant to this Schedule A, may (in its sole discretion) adjust the number and class of Shares that may be delivered pursuant to this Schedule A and/or the number, class, and price of Shares covered by each outstanding Option.

(b) Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, the Company shall notify each Optionee as soon as practicable prior to the effective date of such proposed transaction. To the extent it has not been previously exercised, an Option will terminate immediately prior to the consummation of such proposed action.

(c) Merger or Change in Control. In the event of a merger of the Company with or into another corporation, or a Change in Control, the Option shall 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 Board may determine that the Optionee shall fully vest in and have the right to exercise the Option as to all of the Optioned Stock, including Shares as to which it would not otherwise be vested or exercisable. If the Option becomes fully vested and exercisable in lieu of assumption or substitution in the event of a merger or Change in Control, the Company shall notify the Optionee in writing or electronically that the Option shall be fully exercisable for a period of fifteen (15) days from the date of such notice, and the Option shall terminate upon expiration of such period. For the purposes of this paragraph, the Option shall be considered assumed if, following the merger or Change in Control, the option or right confers the right to purchase or receive, for each Share of Optioned Stock subject to the Option immediately prior to the merger or Change in Control, the consideration (whether stock, cash, or other securities or property) received in the merger or Change in Control by holders of Common Stock for each Share held on the effective date of the transaction (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding Shares); provided, however, that if such consideration received in the merger or Change in Control is not solely common stock of the successor corporation or its Parent, the Company may, with the consent of the successor corporation, provide for the consideration to be received upon the exercise of the Option, for each Share of Optioned Stock subject to the Option, to be solely common stock of the successor corporation or its Parent equal in fair market value to the per share consideration received by holders of common stock in the merger or Change in Control.

7. Time of Granting Options. The date of grant of the Option shall, for all purposes, be the date on which the Board makes the determination granting such Option, or such later date as is determined by the Board. Notice of the determination shall be given to each Service Provider to whom an Option is so granted within a reasonable time after the date of such grant.

8. Conditions Upon Issuance of Shares.

(a) Legal Compliance. Shares shall not be issued pursuant to the exercise of the Option unless the exercise of such Option and the issuance and delivery of such Shares shall comply with Applicable Laws and shall be further subject to the approval of counsel for the Company with respect to such compliance.

(b) Investment Representations. As a condition to the exercise of the Option, the Company may require the person exercising such Option to represent and warrant at the time of any such exercise that the Shares are being purchased only for investment and without any present intention to sell or distribute such Shares if, in the opinion of counsel for the Company, such a representation is required.

9. Inability to Obtain Authority. The inability of the Company to obtain authority from any regulatory body having jurisdiction, which authority is deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares hereunder, shall relieve the Company of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority shall not have been obtained.

**EXHIBIT A**

**EXERCISE NOTICE**

CATALYST BIOSCIENCES, INC.  
260 Littlefield Avenue  
South San Francisco, CA 94080  
Attention:

1. Exercise of Option. Effective as of today, the undersigned Hansoo Keyoung, M.D., Ph.D. (“Optionee”) hereby elects to exercise Optionee’s option (the “Option”) to purchase shares of the Common Stock (the “Shares”) of Catalyst Biosciences, Inc. (the “Company”) under and pursuant to the Stock Option Agreement number 424 dated February 20, 2014 (the “Option Agreement”).

2. Delivery of Payment. Optionee herewith delivers to the Company the full purchase price of the Shares, as set forth in the Option Agreement, and any and all withholding taxes due in connection with the exercise of the Option.

3. Representations of Optionee. Optionee acknowledges that Optionee has received, read and understood the Option Agreement and agrees to abide by and be bound by their terms and conditions.

4. Rights as Stockholder. Until the issuance of the Shares (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder shall exist with respect to the Optioned Stock, notwithstanding the exercise of the Option. The Shares shall be issued to the Optionee as soon as practicable after the Option is exercised in accordance with the Option Agreement. No adjustment shall be made for a dividend or other right for which the record date is prior to the date of issuance except as provided in Section 6 of Schedule A to the Option Agreement.

5. Company’s Right of First Refusal. Before any Shares held by Optionee or any transferee (either being sometimes referred to herein as the “Holder”) may be sold or otherwise transferred (including transfer by gift or operation of law), the Company or its assignee(s) shall have a right of first refusal to purchase the Shares on the terms and conditions set forth in this Section (the “Right of First Refusal”).

(a) Notice of Proposed Transfer. The Holder of the Shares shall deliver to the Company a written notice (the “Notice”) stating: (i) the Holder’s bona fide intention to sell or otherwise transfer such Shares; (ii) the name of each proposed purchaser or other transferee (“Proposed Transferee”); (iii) the number of Shares to be transferred to each Proposed Transferee; and (iv) the bona fide cash price or other consideration for which the Holder proposes to transfer the Shares (the “Offered Price”), and the Holder shall offer the Shares at the Offered Price to the Company or its assignee(s).

(b) Exercise of Right of First Refusal. At any time within thirty (30) days after receipt of the Notice, the Company and/or its assignee(s) may, by giving written notice to the Holder, elect to purchase all, but not less than all, of the Shares proposed to be transferred to any one or more of the Proposed Transferees, at the purchase price determined in accordance with subsection (c) below.

(c) Purchase Price. The purchase price (“Purchase Price”) for the Shares purchased by the Company or its assignee(s) under this Section shall be the Offered Price. If the Offered Price includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the Board of Directors of the Company in good faith.

(d) Payment. Payment of the Purchase Price shall be made, at the option of the Company or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness of the Holder to the Company (or, in the case of repurchase by an assignee, to the assignee), or by any combination thereof within thirty (30) days after receipt of the Notice or in the manner and at the times set forth in the Notice.

(e) Holder's Right to Transfer. If all of the Shares proposed in the Notice to be transferred to a given Proposed Transferee are not purchased by the Company and/or its assignee(s) as provided in this Section, then the Holder may sell or otherwise transfer such Shares to that Proposed Transferee at the Offered Price or at a higher price, provided that such sale or other transfer is consummated within 120 days after the date of the Notice, that any such sale or other transfer is effected in accordance with any applicable securities laws and that the Proposed Transferee agrees in writing that the provisions of this Section shall continue to apply to the Shares in the hands of such Proposed Transferee. If the Shares described in the Notice are not transferred to the Proposed Transferee within such period, a new Notice shall be given to the Company, and the Company and/or its assignees shall again be offered the Right of First Refusal before any Shares held by the Holder may be sold or otherwise transferred.

(f) Exception for Certain Family Transfers. Anything to the contrary contained in this Section notwithstanding, the transfer of any or all of the Shares during the Optionee's lifetime or on the Optionee's death by will or intestacy to the Optionee's immediate family or a trust for the benefit of the Optionee's immediate family shall be exempt from the provisions of this Section. "Immediate Family" as used herein shall mean spouse, lineal descendant or antecedent, father, mother, brother or sister. In such case, the transferee or other recipient shall receive and hold the Shares so transferred subject to the provisions of this Section, and there shall be no further transfer of such Shares except in accordance with the terms of this Section.

(g) Termination of Right of First Refusal. The Right of First Refusal shall terminate as to any Shares upon the earlier of (i) the first sale of Common Stock of the Company to the general public, or (ii) a Change in Control in which the successor corporation has equity securities that are publicly traded.

6. Tax Consultation. Optionee understands that Optionee may suffer adverse tax consequences as a result of Optionee's purchase or disposition of the Shares. Optionee represents that Optionee has consulted with any tax consultants Optionee deems advisable in connection with the purchase or disposition of the Shares and that Optionee is not relying on the Company for any tax advice.

#### 7. Restrictive Legends and Stop-Transfer Orders.

(a) Legends. Optionee understands and agrees that the Company shall cause the legends set forth below or legends substantially equivalent thereto, to be placed upon any certificate(s) evidencing ownership of the Shares together with any other legends that may be required by the Company or by state or federal securities laws:

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 (THE "ACT") AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER THE ACT OR, IN THE OPINION OF COMPANY COUNSEL SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS IN COMPLIANCE THEREWITH.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER AND A RIGHT OF FIRST REFUSAL HELD BY THE ISSUER OR ITS ASSIGNEE(S) AS SET FORTH IN THE EXERCISE NOTICE BETWEEN

THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES, A COPY OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE ISSUER. SUCH TRANSFER RESTRICTIONS AND RIGHT OF FIRST REFUSAL ARE BINDING ON TRANSFEREES OF THESE SHARES.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO RESTRICTIONS ON TRANSFER FOR A PERIOD NOT TO EXCEED 180 DAYS FOLLOWING THE EFFECTIVE DATE OF THE UNDERWRITTEN PUBLIC OFFERING OF THE COMPANY'S SECURITIES AND MAY NOT BE SOLD OR OTHERWISE DISPOSED OF BY THE HOLDER WITHOUT THE CONSENT OF THE COMPANY OR THE MANAGING UNDERWRITER.

(b) Stop-Transfer Notices. Optionee agrees that, in order to ensure compliance with the restrictions referred to herein, the Company may issue appropriate "stop transfer" instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(c) Refusal to Transfer. The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Exercise Notice or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

8. Successors and Assigns. The Company may assign any of its rights under this Exercise Notice to single or multiple assignees, and this Exercise Notice shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth, this Exercise Notice shall be binding upon Optionee and his or her heirs, executors, administrators, successors and assigns.

9. Interpretation. Any dispute regarding the interpretation of this Exercise Notice shall be submitted by Optionee or by the Company forthwith to the Board, which shall review such dispute at its next regular meeting. The resolution of such a dispute by the Board shall be final and binding on all parties.

10. Governing Law; Severability. This Exercise Notice is governed by the internal substantive laws, but not the choice of law rules, of California. In the event that any provision hereof becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Exercise Notice will continue in full force and effect.

11. Entire Agreement. The Option Agreement is incorporated herein by reference. This Exercise Notice, the Option Agreement and the Investment Representation Statement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter hereof, and may not be modified adversely to the Optionee's interest except by means of a writing signed by the Company and Optionee.

Submitted by:  
HANSOO KEYOUNG, M.D., PH.D.

Accepted by:  
CATALYST BIOSCIENCES, INC.

\_\_\_\_\_  
(Signature)

By: \_\_\_\_\_  
Title: \_\_\_\_\_

Address:  
\_\_\_\_\_  
\_\_\_\_\_

Address:  
260 Littlefield Avenue  
South San Francisco, CA 94080

\_\_\_\_\_  
Date Received

**EXHIBIT B**

**INVESTMENT REPRESENTATION STATEMENT**

OPTIONEE: HANSOO KEYOUNG, M.D., PH.D.

COMPANY: CATALYST BIOSCIENCES, INC.

SECURITY: COMMON STOCK

SHARES

AMOUNT: \$

DATE:

In connection with the purchase of the above-listed Securities, the undersigned Optionee represents to the Company the following:

(a) Optionee is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Securities. Optionee is acquiring these Securities for investment for Optionee's own account only and not with a view to, or for resale in connection with, any "distribution" thereof within the meaning of the Securities Act of 1933, as amended (the "Securities Act").

(b) Optionee acknowledges and understands that the Securities constitute "restricted securities" under the Securities Act and have not been registered under the Securities Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of Optionee's investment intent as expressed herein. In this connection, Optionee understands that, in the view of the Securities and Exchange Commission, the statutory basis for such exemption may be unavailable if Optionee's representation was predicated solely upon a present intention to hold these Securities for the minimum capital gains period specified under tax statutes, for a deferred sale, for or until an increase or decrease in the market price of the Securities, or for a period of one year or any other fixed period in the future. Optionee further understands that the Securities must be held indefinitely unless they are subsequently registered under the Securities Act or an exemption from such registration is available. Optionee further acknowledges and understands that the Company is under no obligation to register the Securities. Optionee understands that the certificate evidencing the Securities will be imprinted with any legend required under applicable state securities laws.

(c) Optionee is familiar with the provisions of Rule 701 and Rule 144, each promulgated under the Securities Act, which, in substance, permit limited public resale of "restricted securities" acquired, directly or indirectly from the issuer thereof, in a non-public offering subject to the satisfaction of certain conditions. Rule 701 provides that if the issuer qualifies under Rule 701 at the time of the grant of the Option to the Optionee, the exercise will be exempt from registration under the Securities Act. In the event the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, ninety (90) days thereafter (or such longer period as any market stand-off agreement may require) the Securities exempt under Rule 701 may be resold, subject to the satisfaction of certain of the conditions specified by Rule 144, including: (1) the resale being made through a broker in an unsolicited "broker's transaction" or in transactions directly with a market maker (as said term is defined under the Securities Exchange Act of 1934); and, in the case of an affiliate, (2) the availability of certain public information about the Company, (3) the amount of Securities being sold during any three month period not exceeding the limitations specified in Rule 144(e), and (4) the timely filing of a Form 144, if applicable.

In the event that the Company does not qualify under Rule 701 at the time of grant of the Option, then the Securities may be resold in certain limited circumstances subject to the provisions of Rule 144, which requires the resale to occur not less than one year after the later of the date the Securities were sold by the Company or the date the Securities were sold by an affiliate of the Company, within the meaning of Rule 144; and, in the case of acquisition of the Securities by an affiliate, or by a non-affiliate who subsequently holds the Securities less than two years, the satisfaction of the conditions set forth in sections (1), (2), (3) and (4) of the paragraph immediately above.

(d) Optionee further understands that in the event all of the applicable requirements of Rule 701 or 144 are not satisfied, registration under the Securities Act, compliance with Regulation A, or some other registration exemption will be required; and that, notwithstanding the fact that Rules 144 and 701 are not exclusive, the Staff of the Securities and Exchange Commission has expressed its opinion that persons proposing to sell private placement securities other than in a registered offering and otherwise than pursuant to Rules 144 or 701 will have a substantial burden of proof in establishing that an exemption from registration is available for such offers or sales, and that such persons and their respective brokers who participate in such transactions do so at their own risk. Optionee understands that no assurances can be given that any such other registration exemption will be available in such event.

Signature of Optionee:

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Hansoo Keyoung, M.D., Ph.D.

Date:



**EXHIBIT C-1**

**CATALYST BIOSCIENCES, INC.**

**RESTRICTED STOCK PURCHASE AGREEMENT**

THIS AGREEMENT is made between Hansoo Keyoung, M.D., Ph.D. (the "Purchaser") and Catalyst Biosciences, Inc. (the "Company") or its assignees of rights hereunder as of.

Unless otherwise defined herein, the terms defined in Schedule A of the Option Agreement shall have the same defined meanings in this Agreement.

**RECITALS**

A. Pursuant to the exercise of the option granted to Purchaser pursuant to the Option Agreement number 424 dated February 20, 2014 by and between the Company and Purchaser with respect to such grant (the "Option"), which Option Agreement are hereby incorporated by reference, Purchaser has elected to purchase of those shares of Common Stock which have not become vested under the vesting schedule set forth in the Option Agreement ("Unvested Shares"). The Unvested Shares and the shares subject to the Option Agreement, which have become vested are sometimes collectively referred to herein as the "Shares."

B. As required by the Option Agreement, as a condition to Purchaser's election to exercise the option, Purchaser must execute this Agreement, which sets forth the rights and obligations of the parties with respect to Shares acquired upon exercise of the Option.

**1. Repurchase Option.**

(a) If Purchaser's status as a Service Provider is terminated for any reason, including for death and Disability, the Company shall have the right and option for ninety (90) days from such date to purchase from Purchaser, or Purchaser's personal representative, as the case may be, all of the Purchaser's Unvested Shares as of the date of such termination at the price paid by the Purchaser for such Shares (the "Repurchase Option").

(b) Upon the occurrence of such termination, the Company may exercise its Repurchase Option by delivering personally or by registered mail, to Purchaser (or his transferee or legal representative, as the case may be) with a copy to the escrow agent described in Section 2 below, a notice in writing indicating the Company's intention to exercise the Repurchase Option AND, at the Company's option, (i) by delivering to the Purchaser (or the Purchaser's transferee or legal representative) a check in the amount of the aggregate repurchase price, or (ii) by the Company canceling an amount of the Purchaser's indebtedness to the Company equal to the aggregate repurchase price, or (iii) by a combination of (i) and (ii) so that the combined payment and cancellation of indebtedness equals such aggregate repurchase price. Upon delivery of such notice and payment of the aggregate repurchase price in any of the ways described above, the Company shall become the legal and beneficial owner of the Unvested Shares being repurchased and the rights and interests therein or relating thereto, and the Company shall have the right to retain and transfer to its own name the number of Unvested Shares being repurchased by the Company.

(c) Whenever the Company shall have the right to repurchase Unvested Shares hereunder, the Company may designate and assign one or more employees, officers, directors or stockholders of the Company or other persons or organizations to exercise all or a part of the Company's Repurchase Option under this Agreement and purchase all or a part of such Unvested Shares.

(d) If the Company does not elect to exercise the Repurchase Option conferred above by giving the requisite notice within ninety (90) days following the termination, the Repurchase Option shall terminate.

(e) The Repurchase Option shall terminate in accordance with the vesting schedule contained in Purchaser's Option Agreement.

## 2. Transferability of the Shares; Escrow.

(a) Purchaser hereby authorizes and directs the Secretary of the Company, or such other person designated by the Company, to transfer the Unvested Shares as to which the Repurchase Option has been exercised from Purchaser to the Company.

(b) To insure the availability for delivery of Purchaser's Unvested Shares upon repurchase by the Company pursuant to the Repurchase Option under Section 1, Purchaser hereby appoints the Secretary, or any other person designated by the Company as escrow agent (the "Escrow Agent"), as its attorney-in-fact to sell, assign and transfer unto the Company, such Unvested Shares, if any, repurchased by the Company pursuant to the Repurchase Option and shall, upon execution of this Agreement, deliver and deposit with the Escrow Agent, the share certificates representing the Unvested Shares, together with the stock assignment duly endorsed in blank, attached hereto as Exhibit C-2. The Unvested Shares and stock assignment shall be held by the Escrow Agent in escrow, pursuant to the Joint Escrow Instructions of the Company and Purchaser attached as Exhibit C-3 hereto, until the Company exercises its Repurchase Option, until such Unvested Shares are vested, or until such time as this Agreement no longer is in effect. Upon vesting of the Unvested Shares, the Escrow Agent shall promptly deliver to the Purchaser the certificate or certificates representing such Shares in the Escrow Agent's possession belonging to the Purchaser, and the Escrow Agent shall be discharged of all further obligations hereunder; provided, however, that the Escrow Agent shall nevertheless retain such certificate or certificates as Escrow Agent if so required pursuant to other restrictions imposed pursuant to this Agreement.

(c) The Company nor the Escrow Agent shall be liable for any act it may do or omit to do with respect to holding the Shares in escrow and while acting in good faith and in the exercise of its judgment.

(d) Transfer or sale of the Shares is subject to restrictions on transfer imposed by any applicable state and federal securities laws. Any transferee shall hold such Shares subject to all the provisions hereof and the Exercise Notice executed by the Purchaser with respect to any Unvested Shares purchased by Purchaser and shall acknowledge the same by signing a copy of this Agreement.

3. Ownership, Voting Rights, Duties. This Agreement shall not affect in any way the ownership, voting rights or other rights or duties of Purchaser, except as specifically provided herein.

4. Legends. The share certificate evidencing the Shares issued hereunder shall be endorsed with the following legend (in addition to any legend required under applicable federal and state securities laws):

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS UPON TRANSFER AND RIGHTS OF REPURCHASE AS SET FORTH IN AN AGREEMENT BETWEEN THE COMPANY AND THE STOCKHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.

5. Adjustment for Stock Split. All references to the number of Shares and the purchase price of the Shares in this Agreement shall be appropriately adjusted to reflect any stock split, stock dividend or other change in the Shares, which may be made by the Company pursuant to Section 6 of Schedule A to the Option Agreement after the date of this Agreement.

6. Notices. Notices required hereunder shall be given in person or by registered mail to the address of Purchaser shown on the records of the Company, and to the Company at their respective principal executive offices.

7. Survival of Terms. This Agreement shall apply to and bind Purchaser and the Company and their respective permitted assignees and transferees, heirs, legatees, executors, administrators and legal successors.

8. Section 83(b) Election. Purchaser hereby acknowledges that he or she has been informed that, with respect to the exercise of an Option for Unvested Shares, an election (the "Election") may be filed by the Purchaser with the Internal Revenue Service, within thirty (30) days of the purchase of the exercised Shares, electing pursuant to Section 83(b) of the Code to be taxed currently on any difference between the purchase price of the exercised Shares and their Fair Market Value on the date of purchase. In the case of a Nonstatutory Stock Option, this will result in a recognition of taxable income to the Purchaser on the date of exercise, measured by the excess, if any, of the Fair Market Value of the exercised Shares, at the time the Option is exercised over the purchase price for the exercised Shares. Absent such an Election, taxable income will be measured and recognized by Purchaser at the time or times on which the Company's Repurchase Option lapses. Absent such an Election, alternative minimum taxable income will be measured and recognized by Purchaser at the time or times on which the Company's Repurchase Option lapses. Purchaser is strongly encouraged to seek the advice of his or her own tax consultants in connection with the purchase of the Shares and the advisability of filing of the Election under Section 83(b) of the Code. A form of Election under Section 83(b) is attached hereto as Exhibit C-4 for reference.

**PURCHASER ACKNOWLEDGES THAT IT IS PURCHASER'S SOLE RESPONSIBILITY AND NOT THE COMPANY'S TO FILE TIMELY THE ELECTION UNDER SECTION 83(b) OF THE CODE, EVEN IF PURCHASER REQUESTS THE COMPANY OR ITS REPRESENTATIVE TO MAKE THIS FILING ON PURCHASER'S BEHALF.**

9. Representations. Purchaser has reviewed with his own tax advisors the federal, state, local and foreign tax consequences of this investment and the transactions contemplated by this Agreement. Purchaser is relying solely on such advisors and not on any statements or representations of the Company or any of its agents. Purchaser understands that he (and not the Company) shall be responsible for his own tax liability that may arise as a result of this investment or the transactions contemplated by this Agreement.

10. Governing Law. This Agreement shall be governed by the internal substantive laws, but not the choice of law rules, of California.

Purchaser represents that he has read this Agreement and is familiar with its terms and provisions. Purchaser hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Board upon any questions arising under this Agreement.

IN WITNESS WHEREOF, this Agreement is deemed made as of the date first set forth above.

HANSOO KEYOUNG, M.D., PH.D.

CATALYST BIOSCIENCES, INC.

(Signature)

By: \_\_\_\_\_

Title: \_\_\_\_\_

Address:

Address:

260 Littlefield Avenue  
South San Francisco, CA 94080

**EXHIBIT C-2**

**ASSIGNMENT SEPARATE FROM CERTIFICATE**

INSTRUCTIONS: Please do not fill in any blanks other than the signature line. The purpose of this assignment is to enable the Company to exercise its “repurchase option,” as set forth in the Agreement, without requiring additional signatures on the part of the Purchaser.

FOR VALUE RECEIVED I, Hansoo Keyoung, M.D., Ph.D. hereby sell, assign and transfer unto Catalyst Biosciences, Inc. (the “Company”) ( ) shares of the Common Stock of the Company standing in my name of the books of said corporation represented by Certificate No. herewith and do hereby irrevocably constitute and appoint to transfer the said stock on the books of the within named corporation with full power of substitution in the premises.

This Stock Assignment may be used only in accordance with the Restricted Stock Purchase Agreement between the Company and the undersigned dated (the “Agreement”).

Dated:

Signature: \_\_\_\_\_

**EXHIBIT C-3**

**JOINT ESCROW INSTRUCTIONS**

Date:

Catalyst Biosciences, Inc.  
260 Littlefield Avenue  
South San Francisco, CA 94080  
Attn:

Dear Secretary:

As Escrow Agent for both Catalyst Biosciences, Inc. (the “Company”), and the undersigned purchaser of stock of the Company (the “Purchaser”), you are hereby authorized and directed to hold the documents delivered to you pursuant to the terms of that certain Restricted Stock Purchase Agreement (the “Agreement”) between the Company and the undersigned, in accordance with the following instructions:

1. In the event the Company and/or any assignee of the Company (referred to collectively for convenience herein as the “Company”) exercises the Company’s repurchase option set forth in the Agreement, the Company shall give to Purchaser and you a written notice specifying the number of shares of stock to be purchased, the purchase price, and the time for a closing hereunder at the principal office of the Company. Purchaser and the Company hereby irrevocably authorize and direct you to close the transaction contemplated by such notice in accordance with the terms of said notice.

2. At the closing, you are directed (a) to date the stock assignments necessary for the transfer in question, (b) to fill in the number of shares being transferred, and (c) to deliver the stock assignments, together with the certificate evidencing the shares of stock to be transferred, to the Company or its assignee, against the simultaneous delivery to you of the purchase price (by cash, a check, or some combination thereof) for the number of shares of stock being purchased pursuant to the exercise of the Company’s repurchase option.

3. Purchaser irrevocably authorizes the Company to deposit with you any certificates evidencing shares of stock to be held by you hereunder and any additions and substitutions to said shares as defined in the Agreement. Purchaser does hereby irrevocably constitute and appoint you as Purchaser’s attorney-in-fact and agent for the term of this escrow to execute with respect to such securities all documents necessary or appropriate to make such securities negotiable and to complete any transaction herein contemplated, including but not limited to the filing with any applicable state blue sky authority of any required applications for consent to, or notice of transfer of, the securities. Subject to the provisions of this paragraph 3, Purchaser shall exercise all rights and privileges of a stockholder of the Company while the stock is held by you.

4. Upon written request of the Purchaser, but no more than once per calendar year, unless the Company’s repurchase option has been exercised, you will deliver to Purchaser a certificate or certificates representing so many shares of stock as are not then subject to the Company’s repurchase option. Within 120 days after cessation of Purchaser’s continuous employment by or services to the Company, or any parent or subsidiary of the Company, you will deliver to Purchaser a certificate or certificates representing the aggregate number of shares held or issued pursuant to the Agreement and not purchased by the Company or its assignees pursuant to exercise of the Company’s repurchase option.

5. If at the time of termination of this escrow you should have in your possession any documents, securities, or other property belonging to Purchaser, you shall deliver all of the same to Purchaser and shall be discharged of all further obligations hereunder.

6. Your duties hereunder may be altered, amended, modified or revoked only by a writing signed by all of the parties hereto.

7. You shall be obligated only for the performance of such duties as are specifically set forth herein and may rely and shall be protected in relying or refraining from acting on any instrument reasonably believed by you to be genuine and to have been signed or presented by the proper party or parties. You shall not be personally liable for any act you may do or omit to do hereunder as Escrow Agent or as attorney-in-fact for Purchaser while acting in good faith, and any act done or omitted by you pursuant to the advice of your own attorneys shall be conclusive evidence of such good faith.

8. You are hereby expressly authorized to disregard any and all warnings given by any of the parties hereto or by any other person or corporation, excepting only orders or process of courts of law and are hereby expressly authorized to comply with and obey orders, judgments or decrees of any court. In case you obey or comply with any such order, judgment or decree, you shall not be liable to any of the parties hereto or to any other person, firm or corporation by reason of such compliance, notwithstanding any such order, judgment or decree being subsequently reversed, modified, annulled, set aside, vacated or found to have been entered without jurisdiction.

9. You shall not be liable in any respect on account of the identity, authorities or rights of the parties executing or delivering or purporting to execute or deliver the Agreement or any documents or papers deposited or called for hereunder.

10. You shall not be liable for the outlawing of any rights under the Statute of Limitations with respect to these Joint Escrow Instructions or any documents deposited with you.

11. You shall be entitled to employ such legal counsel and other experts as you may deem necessary properly to advise you in connection with your obligations hereunder, may rely upon the advice of such counsel, and may pay such counsel reasonable compensation therefor.

12. Your responsibilities as Escrow Agent hereunder shall terminate if you shall cease to be an officer or agent of the Company or if you shall resign by written notice to each party. In the event of any such termination, the Company shall appoint a successor Escrow Agent.

13. If you reasonably require other or further instruments in connection with these Joint Escrow Instructions or obligations in respect hereto, the necessary parties hereto shall join in furnishing such instruments.

14. It is understood and agreed that should any dispute arise with respect to the delivery and/or ownership or right of possession of the securities held by you hereunder, you are authorized and directed to retain in your possession without liability to anyone all or any part of said securities until such disputes shall have been settled either by mutual written agreement of the parties concerned or by a final order, decree or judgment of a court of competent jurisdiction after the time for appeal has expired and no appeal has been perfected, but you shall be under no duty whatsoever to institute or defend any such proceedings.

15. Any notice required or permitted hereunder shall be given in writing and shall be deemed effectively given upon personal delivery or upon deposit in the United States Post Office, by registered or certified mail with postage and fees prepaid, addressed to each of the other parties thereunto entitled at the following addresses or at such other addresses as a party may designate by ten days' advance written notice to each of the other parties hereto.

16. By signing these Joint Escrow Instructions, you become a party hereto only for the purpose of said Joint Escrow Instructions; you do not become a party to the Agreement.

17. This instrument shall be binding upon and inure to the benefit of the parties hereto, and their respective successors and permitted assigns.

18. These Joint Escrow Instructions shall be governed by the internal substantive laws, but not the choice of law rules, of California.

HANSOO KEYOUNG, M.D., PH.D.

CATALYST BIOSCIENCES, INC.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
By

\_\_\_\_\_  
Residence Address

\_\_\_\_\_  
Title

ESCROW AGENT

\_\_\_\_\_  
Corporate Secretary

Dated:



**EXHIBIT C-4**

**ELECTION UNDER SECTION 83(b)  
OF THE INTERNAL REVENUE CODE OF 1986**

The undersigned taxpayer hereby elects, pursuant to Sections 55 and 83(b) of the Internal Revenue Code of 1986, as amended, to include in taxpayer's gross income or alternative minimum taxable income, as the case may be, for the current taxable year the amount of any compensation taxable to taxpayer in connection with taxpayer's receipt of the property described below

1. The name, address, taxpayer identification number and taxable year of the undersigned are as follows:

NAME: TAXPAYER: \_\_\_\_\_ SPOUSE: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
IDENTIFICATION NO.: TAXPAYER: \_\_\_\_\_ SPOUSE: \_\_\_\_\_  
TAXABLE YEAR:

2. The property with respect to which the election is made is described as follows:

shares (the "Shares") of the Common Stock of Catalyst Biosciences, Inc. (the "Company").

3. The date on which the property was transferred is: .

4. The property is subject to the following restrictions:

The Shares may not be transferred and are subject to forfeiture under the terms of an agreement between the taxpayer and the Company. These restrictions lapse upon the satisfaction of certain conditions contained in such agreement.

5. The fair market value at the time of transfer, determined without regard to any restriction other than a restriction which by its terms will never lapse, of such property is: \$ .

6. The amount (if any) paid for such property is: \$ .

The undersigned has submitted a copy of this statement to the person for whom the services were performed in connection with the undersigned's receipt of the above-described property. The transferee of such property is the person performing the services in connection with the transfer of said property.

The undersigned understands that the foregoing election may not be revoked except with the consent of the Commissioner.

Dated: , \_\_\_\_\_  
Taxpayer

The undersigned spouse of taxpayer joins in this election.

Dated: , \_\_\_\_\_  
Spouse of Taxpayer

## CATALYST BIOSCIENCES, INC.

## STOCK OPTION AGREEMENT — EARLY EXERCISE

Unless otherwise defined herein, the terms defined in Schedule A, attached hereto and incorporated herein by reference, shall have the same defined meanings in this Stock Option Agreement.

I. NOTICE OF STOCK OPTION GRANT

Name: **Hansoo Keyoung, M.D., Ph.D.**

Address:

The undersigned Optionee has been granted an Option to purchase Common Stock of the Company, subject to the terms and conditions of this Option Agreement, as follows:

Grant Number:	<b>425</b>
Date of Grant	<b>February 20, 2014</b>
Vesting Commencement Date	<b>December 24, 2013</b>
Exercise Price per Share	<b>\$0.29</b>
Total Number of Shares Granted	<b>100,000</b>
Total Exercise Price	<b>\$29,000.00</b>
Type of Option:	<b>Non-Statutory (NSO)</b>
Term/Expiration Date:	<b>February 19, 2024</b>

Vesting Schedule:

This Option shall be exercisable, in whole or in part, according to the following vesting schedule:

The option shall vest in full on the closing of a \$5 million equity financing while optionee continues to provide services to the Company.

Termination Period:

This Option shall be exercisable for three (3) months after Optionee ceases to be a Service Provider. Upon Optionee's death or Disability, this Option may be exercised for one (1) year after Optionee ceases to be a Service Provider. In no event may Optionee exercise this Option after the Term/Expiration Date as provided above.

## II. AGREEMENT

1. Grant of Option. The Company hereby grants to the Optionee named in the Notice of Stock Option Grant (the "Optionee"), an option (the "Option") to purchase the number of Shares set forth in the Notice of Stock Option Grant, at the exercise price per Share set forth in the Notice of Stock Option Grant (the "Exercise Price"), and subject to the terms and conditions of this Agreement.

2. Exercise of Option. This Option shall be exercisable during its term in accordance with the provisions of Section 5 of Schedule A as follows:

(a) Right to Exercise.

(i) Subject to subsections 2(a)(ii) and 2(a)(iii) below, this Option shall be exercisable cumulatively according to the vesting schedule set forth in the Notice of Stock Option Grant. Alternatively, at the election of the Optionee, this Option may be exercised in whole or in part at any time as to Shares that have not yet vested. Vested Shares shall not be subject to the Company's repurchase right (as set forth in the Restricted Stock Purchase Agreement, attached hereto as Exhibit C-1).

(ii) As a condition to exercising this Option for unvested Shares, the Optionee shall execute the Restricted Stock Purchase Agreement.

(iii) This Option may not be exercised for a fraction of a Share.

(b) Method of Exercise. This Option shall be exercisable by delivery of an exercise notice in the form attached as Exhibit A (the "Exercise Notice"), which shall state the election to exercise the Option, the number of Shares with respect to which the Option is being exercised, and such other representations and agreements as may be required by the Company. The Exercise Notice shall be accompanied by payment of the aggregate Exercise Price as to all Exercised Shares. This Option shall be deemed to be exercised upon receipt by the Company of such fully executed Exercise Notice accompanied by the aggregate Exercise Price.

No Shares shall be issued pursuant to the exercise of an Option unless such issuance and such exercise comply with Applicable Laws. Assuming such compliance, for income tax purposes the Shares shall be considered transferred to the Optionee on the date on which the Option is exercised with respect to such Shares.

3. Optionee's Representations. In the event the Shares have not been registered under the Securities Act of 1933, as amended, at the time this Option is exercised, the Optionee shall, if required by the Company, concurrently with the exercise of all or any portion of this Option, deliver to the Company his or her Investment Representation Statement in the form attached hereto as Exhibit B.

4. Lock-Up Period. Optionee hereby agrees that Optionee shall not offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any Common Stock (or other securities) of the Company or enter into any swap, hedging or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of any Common Stock (or other securities) of the Company held by Optionee (other than those included in the registration) for a period specified by the representative of the underwriters of Common Stock (or other securities) of the Company not to exceed one hundred eighty (180) days following the effective date of any registration statement of the Company filed under the Securities Act.

Optionee agrees to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriter which are consistent with the foregoing or which are necessary to give further effect thereto. In addition, if requested by the Company or the representative of the underwriters of Common Stock (or other securities) of the Company, Optionee shall provide, within

ten (10) days of such request, such information as may be required by the Company or such representative in connection with the completion of any public offering of the Company's securities pursuant to a registration statement filed under the Securities Act. The obligations described in this Section shall not apply to a registration relating solely to employee benefit plans on Form S-1 or Form S-8 or similar forms that may be promulgated in the future, or a registration relating solely to a Commission Rule 145 transaction on Form S-4 or similar forms that may be promulgated in the future. The Company may impose stop-transfer instructions with respect to the shares of Common Stock (or other securities) subject to the foregoing restriction until the end of said one hundred eighty (180) day period. Optionee agrees that any transferee of the Option or shares acquired pursuant to the Option shall be bound by this Section.

5. Method of Payment. Payment of the aggregate Exercise Price shall be by any of the following, or a combination thereof, at the election of the Optionee:

(a) cash, check or promissory note;

(b) consideration received by the Company under a formal cashless exercise program adopted by the Company; or

(c) surrender of other Shares which, (i) in the case of Shares acquired from the Company, either directly or indirectly, have been owned by the Optionee for more than six (6) months on the date of surrender, and (ii) have a Fair Market Value on the date of surrender equal to the aggregate Exercise Price of the Exercised Shares.

6. Restrictions on Exercise. This Option may not be exercised if the issuance of such Shares upon such exercise or the method of payment of consideration for such shares would constitute a violation of any Applicable Law.

7. Non-Transferability of Option. This Option may not be transferred in any manner otherwise than by will or by the laws of descent or distribution or as set forth in Schedule A and may be exercised during the lifetime of Optionee only by Optionee. The terms of this Option Agreement shall be binding upon the executors, administrators, heirs, successors and assigns of the Optionee.

8. Term of Option. This Option may be exercised only within the term set out in the Notice of Stock Option Grant, and may be exercised during such term only in accordance with the terms of this Option.

9. Tax Obligations.

(a) Withholding Taxes. Optionee agrees to make appropriate arrangements with the Company (or the Parent or Subsidiary employing or retaining Optionee) for the satisfaction of all Federal, state, local and foreign income and employment tax withholding requirements applicable to the Option exercise. Optionee acknowledges and agrees that the Company may refuse to honor the exercise and refuse to deliver Shares if such withholding amounts are not delivered at the time of exercise.

10. Amendments. No modification of or amendment to this Agreement shall be effective unless in writing and signed by each of the parties.

11. Entire Agreement; Governing Law. This Option Agreement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter hereof, and may not be modified adversely to the Optionee's interest except by means of a writing signed by the Company and Optionee. This agreement is governed by the internal substantive laws but not the choice of law rules of California.

12. No Guarantee of Continued Service. OPTIONEE ACKNOWLEDGES AND AGREES THAT THE VESTING OF SHARES PURSUANT TO THE VESTING SCHEDULE HEREOF IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER AT THE WILL OF THE COMPANY (NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS OPTION OR ACQUIRING SHARES HEREUNDER). OPTIONEE FURTHER ACKNOWLEDGES AND AGREES THAT THIS AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND SHALL NOT INTERFERE IN ANY WAY WITH OPTIONEE'S RIGHT OR THE COMPANY'S RIGHT TO TERMINATE OPTIONEE'S RELATIONSHIP AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE.

Optionee acknowledges receipt of a copy of Schedule A and represents that he or she is familiar with the terms and provisions thereof, and hereby accepts this Option subject to all of the terms and provisions thereof. Optionee has reviewed Schedule A and this Option in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Option and fully understands all provisions of the Option. Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Company upon any questions arising under Schedule A or this Option. Optionee further agrees to notify the Company upon any change in the residence address indicated below.

OPTIONEE:

CATALYST BIOSCIENCES, INC.

/s/ Hansoo Keyoung, M.D., Ph.D.  
(Signature)

By: /s/ Nassim Usman  
Nassim Usman, Chief Executive Officer

Address:  
  
\_\_\_\_\_

Address:  
  
260 Littlefield Avenue  
South San Francisco, CA 94080

## SCHEDULE A

### TERMS AND CONDITIONS

1. Definitions. As used herein, the following definitions shall apply:

- (a) “Applicable Laws” means the requirements relating to the administration of stock option plans under U.S. state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws of any other country or jurisdiction where Options are granted under this Schedule A.
- (b) “Board” means the Board of Directors of the Company.
- (c) “Change in Control” means the occurrence of any of the following events:
- (i) Any “person” (as such term is used in Sections 13(d) and 14(d) of the Exchange Act) becomes the “beneficial owner” (as defined in Rule 13d-3 of the Exchange Act), directly or indirectly, of securities of the Company representing fifty percent (50%) or more of the total voting power represented by the Company’s then outstanding voting securities; or
  - (ii) The consummation of the sale or disposition by the Company of all or substantially all of the Company’s assets; or
  - (iii) The consummation of a merger or consolidation of the Company with any other corporation, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or its parent) at least fifty percent (50%) 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.
- (d) “Code” means the Internal Revenue Code of 1986, as amended.
- (e) “Common Stock” means the Common Stock of the Company.
- (f) “Company” means Catalyst Biosciences, Inc., a Delaware corporation.
- (g) “Consultant” means any person who is engaged by the Company or any Parent or Subsidiary to render consulting or advisory services to such entity.
- (h) “Director” means a member of the Board.
- (i) “Disability” means total and permanent disability as defined in Section 22(e)(3) of the Code.
- (j) “Employee” means any person, including officers and Directors, employed by the Company or any Parent or Subsidiary of the Company. Neither service as a Director nor payment of a director’s fee by the Company shall be sufficient to constitute “employment” by the Company.
- (k) “Exchange Act” means the Securities Exchange Act of 1934, as amended.
- (l) “Fair Market Value” means, as of any date, the value of Common Stock determined as follows.

(i) If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the Nasdaq National Market or The Nasdaq SmallCap Market of The Nasdaq Stock Market, its Fair Market Value shall be the closing sales price for such stock (or the closing bid, if no sales were reported) as quoted on such exchange or system on the day of determination, as reported in *The Wall Street Journal* or such other source as the Board deems reliable;

(ii) If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, its Fair Market Value shall be the mean between the high bid and low asked prices for the Common Stock on the day of determination; or

(iii) In the absence of an established market for the Common Stock, the Fair Market Value thereof shall be determined in good faith by the Company.

(m) “Nonstatutory Stock Option” means an Option not intended to qualify as an incentive stock option within the meaning of Section 422 of the Code.

(n) “Option” means a stock option granted pursuant to this Schedule A.

(o) “Option Agreement” means a written or electronic agreement between the Company and an Optionee evidencing the terms and conditions of an individual Option grant. The Option Agreement is subject to the terms and conditions of this Schedule A.

(p) “Optioned Stock” means the Common Stock subject to an Option.

(q) “Optionee” means the holder of an outstanding Option granted under this Schedule A.

(r) “Parent” means a “parent corporation,” whether now or hereafter existing, as defined in Section 424(e) of the Code.

(s) “Restricted Stock Purchase Agreement” means a written agreement between the Company and the Optionee evidencing the terms and restrictions applying to those shares of Common Stock which have not become vested under the vesting schedule set forth in the Option Agreement. The Restricted Stock Purchase Agreement is subject to the terms and conditions of this Schedule A and the Option Agreement.

(t) “Securities Act” means the Securities Act of 1933, as amended.

(u) “Service Provider” means an Employee, Director or Consultant.

(v) “Share” means a share of the Common Stock, as adjusted in accordance with Section 6 below.

(w) “Subsidiary” means a “subsidiary corporation,” whether now or hereafter existing as defined in Section 424(f) of the Code.

## 2. Limitations.

(a) At-Will Employment. Neither this Schedule A nor the Option Agreement shall confer upon any Optionee any right with respect to continuing the Optionee’s relationship as a Service Provider with the Company, nor shall it interfere in any way with his or her right or the Company’s right to terminate such relationship at any time, with or without cause, and with or without notice.

3. Term of Option. The term of each Option shall be stated in the Option Agreement; provided, however, that the term shall be no more than ten (10) years from the date of grant thereof.

4. Forms of Consideration. The consideration to be paid for the Shares to be issued upon exercise of an Option, including the method of payment, shall be determined by the Board. Such consideration may consist of, without limitation, (i) cash, (ii) check, (iii) promissory note, (iv) other Shares, provided Shares that were acquired directly from the Company (A) have been owned by the Optionee for more than six (6) months on the date of surrender, and (B) have a Fair Market Value on the date of surrender equal to the aggregate exercise price of the Shares as to which such Option shall be exercised, (v) consideration received by the Company under a cashless exercise program implemented by the Company, or (vi) any combination of the foregoing methods of payment. In making its determination as to the type of consideration to accept, the Board shall consider if acceptance of such consideration may be reasonably expected to benefit the Company.

5. Exercise of Option.

(a) Procedure for Exercise, Rights as a Stockholder. Any Option granted hereunder shall be exercisable according to the terms hereof at such times and under such conditions as determined by the Board and set forth in the Option Agreement. An Option may not be exercised for a fraction of a Share.

An Option shall be deemed exercised when the Company receives (i) written or electronic notice of exercise (in accordance with the Option Agreement) from the person entitled to exercise the Option, and (ii) full payment for the Shares with respect to which the Option is exercised. Full payment may consist of any consideration and method of payment authorized by the Board and permitted by the Option Agreement. Shares issued upon exercise of an Option shall be issued in the name of the Optionee or, if requested by the Optionee, in the name of the Optionee and his or her spouse. Until the Shares are issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder shall exist with respect to the Shares, notwithstanding the exercise of the Option. The Company shall issue (or cause to be issued) such Shares promptly after the Option is exercised. No adjustment will be made for a dividend or other right for which the record date is prior to the date the Shares are issued, except as provided in Section 6 of this Schedule A.

Exercise of an Option in any manner shall result in a decrease in the number of Shares thereafter available for sale under the Option, by the number of Shares as to which the Option is exercised.

(b) Termination of Relationship as a Service Provider. If an Optionee ceases to be a Service Provider, such Optionee may exercise his or her Option within thirty (30) days of termination, or such longer period of time as specified in the Option Agreement, to the extent that the Option is vested on the date of termination (but in no event later than the expiration of the term of the Option as set forth in the Option Agreement). If, on the date of termination, the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall revert to the Company. If, after termination, the Optionee does not exercise his or her Option within the time specified by the Company, the Option shall terminate, and the Shares covered by such Option shall revert to the Company.

(c) Disability of Optionee. If an Optionee ceases to be a Service Provider as a result of the Optionee's Disability, the Optionee may exercise his or her Option within six (6) months of termination, or such longer period of time as specified in the Option Agreement, to the extent the Option is vested on the date of termination (but in no event later than the expiration of the term of such Option as set forth in the Option Agreement). If, on the date of termination, the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall revert to the Company. If, after termination, the Optionee does not exercise his or her Option within the time specified herein, the Option shall terminate, and the Shares covered by such Option shall revert to the Company.

(d) Death of Optionee. If an Optionee dies while a Service Provider, the Option may be exercised within six (6) months following Optionee's death, or such longer period of time as specified



in the Option Agreement, to the extent that the Option is vested on the date of death (but in no event later than the expiration of the term of such Option as set forth in the Option Agreement) by the Optionee's designated beneficiary, provided such beneficiary has been designated prior to Optionee's death in a form acceptable to the Board. If no such beneficiary has been designated by the Optionee, then such Option may be exercised by the personal representative of the Optionee's estate or by the person(s) to whom the Option is transferred pursuant to the Optionee's will or in accordance with the laws of descent and distribution. If, at the time of death, the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall immediately revert to the Company. If the Option is not so exercised within the time specified herein, the Option shall terminate and the Shares covered by such Option shall revert to the Company.

6. Adjustments; Dissolution or Liquidation, Merger or Change in Control.

(a) Adjustments. In the event that any dividend or other distribution (whether in the form of cash, Shares, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of Shares or other securities of the Company, or other change in the corporate structure of the Company affecting the Shares occurs, the Board, in order to prevent diminution or enlargement of the benefits or potential benefits intended to be made available pursuant to this Schedule A, may (in its sole discretion) adjust the number and class of Shares that may be delivered pursuant to this Schedule A and/or the number, class, and price of Shares covered by each outstanding Option.

(b) Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, the Company shall notify each Optionee as soon as practicable prior to the effective date of such proposed transaction. To the extent it has not been previously exercised, an Option will terminate immediately prior to the consummation of such proposed action.

(c) Merger or Change in Control. In the event of a merger of the Company with or into another corporation, or a Change in Control, the Option shall 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 Board may determine that the Optionee shall fully vest in and have the right to exercise the Option as to all of the Optioned Stock, including Shares as to which it would not otherwise be vested or exercisable. If the Option becomes fully vested and exercisable in lieu of assumption or substitution in the event of a merger or Change in Control, the Company shall notify the Optionee in writing or electronically that the Option shall be fully exercisable for a period of fifteen (15) days from the date of such notice, and the Option shall terminate upon expiration of such period. For the purposes of this paragraph, the Option shall be considered assumed if, following the merger or Change in Control, the option or right confers the right to purchase or receive, for each Share of Optioned Stock subject to the Option immediately prior to the merger or Change in Control, the consideration (whether stock, cash, or other securities or property) received in the merger or Change in Control by holders of Common Stock for each Share held on the effective date of the transaction (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding Shares); provided, however, that if such consideration received in the merger or Change in Control is not solely common stock of the successor corporation or its Parent, the Company may, with the consent of the successor corporation, provide for the consideration to be received upon the exercise of the Option, for each Share of Optioned Stock subject to the Option, to be solely common stock of the successor corporation or its Parent equal in fair market value to the per share consideration received by holders of common stock in the merger or Change in Control.

7. Time of Granting Options. The date of grant of the Option shall, for all purposes, be the date on which the Board makes the determination granting such Option, or such later date as is determined by the Board. Notice of the determination shall be given to each Service Provider to whom an Option is so granted within a reasonable time after the date of such grant.

8. Conditions Upon Issuance of Shares.

(a) Legal Compliance. Shares shall not be issued pursuant to the exercise of the Option unless the exercise of such Option and the issuance and delivery of such Shares shall comply with Applicable Laws and shall be further subject to the approval of counsel for the Company with respect to such compliance.

(b) Investment Representations. As a condition to the exercise of the Option, the Company may require the person exercising such Option to represent and warrant at the time of any such exercise that the Shares are being purchased only for investment and without any present intention to sell or distribute such Shares if, in the opinion of counsel for the Company, such a representation is required.

9. Inability to Obtain Authority. The inability of the Company to obtain authority from any regulatory body having jurisdiction, which authority is deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares hereunder, shall relieve the Company of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority shall not have been obtained.

**EXHIBIT A**

**EXERCISE NOTICE**

CATALYST BIOSCIENCES, INC.  
260 Littlefield Avenue  
South San Francisco, CA 94080  
Attention:

1. Exercise of Option. Effective as of today, the undersigned Hansoo Keyoung, M.D., Ph.D. ("Optionee") hereby elects to exercise Optionee's option (the "Option") to purchase shares of the Common Stock (the "Shares") of Catalyst Biosciences, Inc. (the "Company") under and pursuant to the Stock Option Agreement number 425 dated February 20, 2014 (the "Option Agreement").

2. Delivery of Payment. Optionee herewith delivers to the Company the full purchase price of the Shares, as set forth in the Option Agreement, and any and all withholding taxes due in connection with the exercise of the Option.

3. Representations of Optionee. Optionee acknowledges that Optionee has received, read and understood the Option Agreement and agrees to abide by and be bound by their terms and conditions.

4. Rights as Stockholder. Until the issuance of the Shares (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder shall exist with respect to the Optioned Stock, notwithstanding the exercise of the Option. The Shares shall be issued to the Optionee as soon as practicable after the Option is exercised in accordance with the Option Agreement. No adjustment shall be made for a dividend or other right for which the record date is prior to the date of issuance except as provided in Section 6 of Schedule A to the Option Agreement.

5. Company's Right of First Refusal. Before any Shares held by Optionee or any transferee (either being sometimes referred to herein as the "Holder") may be sold or otherwise transferred (including transfer by gift or operation of law), the Company or its assignee(s) shall have a right of first refusal to purchase the Shares on the terms and conditions set forth in this Section (the "Right of First Refusal").

(a) Notice of Proposed Transfer. The Holder of the Shares shall deliver to the Company a written notice (the "Notice") stating: (i) the Holder's bona fide intention to sell or otherwise transfer such Shares; (ii) the name of each proposed purchaser or other transferee ("Proposed Transferee"); (iii) the number of Shares to be transferred to each Proposed Transferee; and (iv) the bona fide cash price or other consideration for which the Holder proposes to transfer the Shares (the "Offered Price"), and the Holder shall offer the Shares at the Offered Price to the Company or its assignee(s).

(b) Exercise of Right of First Refusal. At any time within thirty (30) days after receipt of the Notice, the Company and/or its assignee(s) may, by giving written notice to the Holder, elect to purchase all, but not less than all, of the Shares proposed to be transferred to any one or more of the Proposed Transferees, at the purchase price determined in accordance with subsection (c) below.

(c) Purchase Price. The purchase price ("Purchase Price") for the Shares purchased by the Company or its assignee(s) under this Section shall be the Offered Price. If the Offered Price includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the Board of Directors of the Company in good faith.

(d) Payment. Payment of the Purchase Price shall be made, at the option of the Company or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness of the Holder to the Company (or, in the case of repurchase by an assignee, to the assignee), or by any combination thereof within thirty (30) days after receipt of the Notice or in the manner and at the times set forth in the Notice.

(e) Holder's Right to Transfer. If all of the Shares proposed in the Notice to be transferred to a given Proposed Transferee are not purchased by the Company and/or its assignee(s) as provided in this Section, then the Holder may sell or otherwise transfer such Shares to that Proposed Transferee at the Offered Price or at a higher price, provided that such sale or other transfer is consummated within 120 days after the date of the Notice, that any such sale or other transfer is effected in accordance with any applicable securities laws and that the Proposed Transferee agrees in writing that the provisions of this Section shall continue to apply to the Shares in the hands of such Proposed Transferee. If the Shares described in the Notice are not transferred to the Proposed Transferee within such period, a new Notice shall be given to the Company, and the Company and/or its assignees shall again be offered the Right of First Refusal before any Shares held by the Holder may be sold or otherwise transferred.

(f) Exception for Certain Family Transfers. Anything to the contrary contained in this Section notwithstanding, the transfer of any or all of the Shares during the Optionee's lifetime or on the Optionee's death by will or intestacy to the Optionee's immediate family or a trust for the benefit of the Optionee's immediate family shall be exempt from the provisions of this Section. "Immediate Family" as used herein shall mean spouse, lineal descendant or antecedent, father, mother, brother or sister. In such case, the transferee or other recipient shall receive and hold the Shares so transferred subject to the provisions of this Section, and there shall be no further transfer of such Shares except in accordance with the terms of this Section.

(g) Termination of Right of First Refusal. The Right of First Refusal shall terminate as to any Shares upon the earlier of (i) the first sale of Common Stock of the Company to the general public, or (ii) a Change in Control in which the successor corporation has equity securities that are publicly traded.

6. Tax Consultation. Optionee understands that Optionee may suffer adverse tax consequences as a result of Optionee's purchase or disposition of the Shares. Optionee represents that Optionee has consulted with any tax consultants Optionee deems advisable in connection with the purchase or disposition of the Shares and that Optionee is not relying on the Company for any tax advice.

#### 7. Restrictive Legends and Stop-Transfer Orders.

(a) Legends. Optionee understands and agrees that the Company shall cause the legends set forth below or legends substantially equivalent thereto, to be placed upon any certificate(s) evidencing ownership of the Shares together with any other legends that may be required by the Company or by state or federal securities laws:

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 (THE "ACT") AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER THE ACT OR, IN THE OPINION OF COMPANY COUNSEL SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS IN COMPLIANCE THEREWITH.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER AND A RIGHT OF FIRST REFUSAL HELD BY THE ISSUER OR ITS ASSIGNEE(S) AS SET FORTH IN THE EXERCISE NOTICE BETWEEN

THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES, A COPY OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE ISSUER. SUCH TRANSFER RESTRICTIONS AND RIGHT OF FIRST REFUSAL ARE BINDING ON TRANSFEREES OF THESE SHARES.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO RESTRICTIONS ON TRANSFER FOR A PERIOD NOT TO EXCEED 180 DAYS FOLLOWING THE EFFECTIVE DATE OF THE UNDERWRITTEN PUBLIC OFFERING OF THE COMPANY'S SECURITIES AND MAY NOT BE SOLD OR OTHERWISE DISPOSED OF BY THE HOLDER WITHOUT THE CONSENT OF THE COMPANY OR THE MANAGING UNDERWRITER.

(b) Stop-Transfer Notices. Optionee agrees that, in order to ensure compliance with the restrictions referred to herein, the Company may issue appropriate "stop transfer" instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(c) Refusal to Transfer. The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Exercise Notice or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

8. Successors and Assigns. The Company may assign any of its rights under this Exercise Notice to single or multiple assignees, and this Exercise Notice shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth, this Exercise Notice shall be binding upon Optionee and his or her heirs, executors, administrators, successors and assigns.

9. Interpretation. Any dispute regarding the interpretation of this Exercise Notice shall be submitted by Optionee or by the Company forthwith to the Board, which shall review such dispute at its next regular meeting. The resolution of such a dispute by the Board shall be final and binding on all parties.

10. Governing Law; Severability. This Exercise Notice is governed by the internal substantive laws, but not the choice of law rules, of California. In the event that any provision hereof becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Exercise Notice will continue in full force and effect.

11. Entire Agreement. The Option Agreement is incorporated herein by reference. This Exercise Notice, the Option Agreement and the Investment Representation Statement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter hereof, and may not be modified adversely to the Optionee's interest except by means of a writing signed by the Company and Optionee.

Submitted by:  
HANSOO KEYOUNG, M.D., PH.D.

Accepted by:  
CATALYST BIOSCIENCES, INC.

By: \_\_\_\_\_

Title: \_\_\_\_\_

\_\_\_\_\_  
(Signature)

Address:  
\_\_\_\_\_  
\_\_\_\_\_

Address:  
260 Littlefield Avenue  
South San Francisco, CA 94080

\_\_\_\_\_  
Date Received

**EXHIBIT B**

**INVESTMENT REPRESENTATION STATEMENT**

OPTIONEE: HANSOO KEYOUNG, M.D., PH.D.

COMPANY: CATALYST BIOSCIENCES, INC.

SECURITY: COMMON STOCK

SHARES

AMOUNT: \$

DATE:

In connection with the purchase of the above-listed Securities, the undersigned Optionee represents to the Company the following:

(a) Optionee is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Securities. Optionee is acquiring these Securities for investment for Optionee's own account only and not with a view to, or for resale in connection with, any "distribution" thereof within the meaning of the Securities Act of 1933, as amended (the "Securities Act").

(b) Optionee acknowledges and understands that the Securities constitute "restricted securities" under the Securities Act and have not been registered under the Securities Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of Optionee's investment intent as expressed herein. In this connection, Optionee understands that, in the view of the Securities and Exchange Commission, the statutory basis for such exemption may be unavailable if Optionee's representation was predicated solely upon a present intention to hold these Securities for the minimum capital gains period specified under tax statutes, for a deferred sale, for or until an increase or decrease in the market price of the Securities, or for a period of one year or any other fixed period in the future. Optionee further understands that the Securities must be held indefinitely unless they are subsequently registered under the Securities Act or an exemption from such registration is available. Optionee further acknowledges and understands that the Company is under no obligation to register the Securities. Optionee understands that the certificate evidencing the Securities will be imprinted with any legend required under applicable state securities laws.

(c) Optionee is familiar with the provisions of Rule 701 and Rule 144, each promulgated under the Securities Act, which, in substance, permit limited public resale of "restricted securities" acquired, directly or indirectly from the issuer thereof, in a non-public offering subject to the satisfaction of certain conditions. Rule 701 provides that if the issuer qualifies under Rule 701 at the time of the grant of the Option to the Optionee, the exercise will be exempt from registration under the Securities Act. In the event the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, ninety (90) days thereafter (or such longer period as any market stand-off agreement may require) the Securities exempt under Rule 701 may be resold, subject to the satisfaction of certain of the conditions specified by Rule 144, including: (1) the resale being made through a broker in an unsolicited "broker's transaction" or in transactions directly with a market maker (as said term is defined under the Securities Exchange Act of 1934); and, in the case of an affiliate, (2) the availability of certain public information about the Company, (3) the amount of Securities being sold during any three month period not exceeding the limitations specified in Rule 144(e), and (4) the timely filing of a Form 144, if applicable.

In the event that the Company does not qualify under Rule 701 at the time of grant of the Option, then the Securities may be resold in certain limited circumstances subject to the provisions of Rule 144, which requires the resale to occur not less than one year after the later of the date the Securities were sold by the Company or the date the Securities were sold by an affiliate of the Company, within the meaning of Rule 144; and, in the case of acquisition of the Securities by an affiliate, or by a non-affiliate who subsequently holds the Securities less than two years, the satisfaction of the conditions set forth in sections (1), (2), (3) and (4) of the paragraph immediately above.

(d) Optionee further understands that in the event all of the applicable requirements of Rule 701 or 144 are not satisfied, registration under the Securities Act, compliance with Regulation A, or some other registration exemption will be required; and that, notwithstanding the fact that Rules 144 and 701 are not exclusive, the Staff of the Securities and Exchange Commission has expressed its opinion that persons proposing to sell private placement securities other than in a registered offering and otherwise than pursuant to Rules 144 or 701 will have a substantial burden of proof in establishing that an exemption from registration is available for such offers or sales, and that such persons and their respective brokers who participate in such transactions do so at their own risk. Optionee understands that no assurances can be given that any such other registration exemption will be available in such event.

Signature of Optionee:

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Hansoo Keyoung, M.D., Ph.D.

Date:



**EXHIBIT C-1**

**CATALYST BIOSCIENCES, INC.**

**RESTRICTED STOCK PURCHASE AGREEMENT**

THIS AGREEMENT is made between Hansoo Keyoung, M.D., Ph.D. (the "Purchaser") and Catalyst Biosciences, Inc. (the "Company") or its assignees of rights hereunder as of .

Unless otherwise defined herein, the terms defined in Schedule A of the Option Agreement shall have the same defined meanings in this Agreement.

**RECITALS**

A. Pursuant to the exercise of the option granted to Purchaser pursuant to the Option Agreement number 425 dated February 20, 2014 by and between the Company and Purchaser with respect to such grant (the "Option"), which Option Agreement are hereby incorporated by reference, Purchaser has elected to purchase of those shares of Common Stock which have not become vested under the vesting schedule set forth in the Option Agreement ("Unvested Shares"). The Unvested Shares and the shares subject to the Option Agreement, which have become vested are sometimes collectively referred to herein as the "Shares."

B. As required by the Option Agreement, as a condition to Purchaser's election to exercise the option, Purchaser must execute this Agreement, which sets forth the rights and obligations of the parties with respect to Shares acquired upon exercise of the Option.

**1. Repurchase Option.**

(a) If Purchaser's status as a Service Provider is terminated for any reason, including for death and Disability, the Company shall have the right and option for ninety (90) days from such date to purchase from Purchaser, or Purchaser's personal representative, as the case may be, all of the Purchaser's Unvested Shares as of the date of such termination at the price paid by the Purchaser for such Shares (the "Repurchase Option").

(b) Upon the occurrence of such termination, the Company may exercise its Repurchase Option by delivering personally or by registered mail, to Purchaser (or his transferee or legal representative, as the case may be) with a copy to the escrow agent described in Section 2 below, a notice in writing indicating the Company's intention to exercise the Repurchase Option AND, at the Company's option, (i) by delivering to the Purchaser (or the Purchaser's transferee or legal representative) a check in the amount of the aggregate repurchase price, or (ii) by the Company canceling an amount of the Purchaser's indebtedness to the Company equal to the aggregate repurchase price, or (iii) by a combination of (i) and (ii) so that the combined payment and cancellation of indebtedness equals such aggregate repurchase price. Upon delivery of such notice and payment of the aggregate repurchase price in any of the ways described above, the Company shall become the legal and beneficial owner of the Unvested Shares being repurchased and the rights and interests therein or relating thereto, and the Company shall have the right to retain and transfer to its own name the number of Unvested Shares being repurchased by the Company.

(c) Whenever the Company shall have the right to repurchase Unvested Shares hereunder, the Company may designate and assign one or more employees, officers, directors or stockholders of the Company or other persons or organizations to exercise all or a part of the Company's Repurchase Option under this Agreement and purchase all or a part of such Unvested Shares.

(d) If the Company does not elect to exercise the Repurchase Option conferred above by giving the requisite notice within ninety (90) days following the termination, the Repurchase Option shall terminate.

(e) The Repurchase Option shall terminate in accordance with the vesting schedule contained in Purchaser's Option Agreement.

## 2. Transferability of the Shares; Escrow.

(a) Purchaser hereby authorizes and directs the Secretary of the Company, or such other person designated by the Company, to transfer the Unvested Shares as to which the Repurchase Option has been exercised from Purchaser to the Company.

(b) To insure the availability for delivery of Purchaser's Unvested Shares upon repurchase by the Company pursuant to the Repurchase Option under Section 1, Purchaser hereby appoints the Secretary, or any other person designated by the Company as escrow agent (the "Escrow Agent"), as its attorney-in-fact to sell, assign and transfer unto the Company, such Unvested Shares, if any, repurchased by the Company pursuant to the Repurchase Option and shall, upon execution of this Agreement, deliver and deposit with the Escrow Agent, the share certificates representing the Unvested Shares, together with the stock assignment duly endorsed in blank, attached hereto as Exhibit C-2. The Unvested Shares and stock assignment shall be held by the Escrow Agent in escrow, pursuant to the Joint Escrow Instructions of the Company and Purchaser attached as Exhibit C-3 hereto, until the Company exercises its Repurchase Option, until such Unvested Shares are vested, or until such time as this Agreement no longer is in effect. Upon vesting of the Unvested Shares, the Escrow Agent shall promptly deliver to the Purchaser the certificate or certificates representing such Shares in the Escrow Agent's possession belonging to the Purchaser, and the Escrow Agent shall be discharged of all further obligations hereunder; provided, however, that the Escrow Agent shall nevertheless retain such certificate or certificates as Escrow Agent if so required pursuant to other restrictions imposed pursuant to this Agreement.

(c) The Company nor the Escrow Agent shall be liable for any act it may do or omit to do with respect to holding the Shares in escrow and while acting in good faith and in the exercise of its judgment.

(d) Transfer or sale of the Shares is subject to restrictions on transfer imposed by any applicable state and federal securities laws. Any transferee shall hold such Shares subject to all the provisions hereof and the Exercise Notice executed by the Purchaser with respect to any Unvested Shares purchased by Purchaser and shall acknowledge the same by signing a copy of this Agreement.

3. Ownership, Voting Rights, Duties. This Agreement shall not affect in any way the ownership, voting rights or other rights or duties of Purchaser, except as specifically provided herein.

4. Legends. The share certificate evidencing the Shares issued hereunder shall be endorsed with the following legend (in addition to any legend required under applicable federal and state securities laws):

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS UPON TRANSFER AND RIGHTS OF REPURCHASE AS SET FORTH IN AN AGREEMENT BETWEEN THE COMPANY AND THE STOCKHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.

5. Adjustment for Stock Split. All references to the number of Shares and the purchase price of the Shares in this Agreement shall be appropriately adjusted to reflect any stock split, stock dividend or other change in the Shares, which may be made by the Company pursuant to Section 6 of Schedule A to the Option Agreement after the date of this Agreement.

6. Notices. Notices required hereunder shall be given in person or by registered mail to the address of Purchaser shown on the records of the Company, and to the Company at their respective principal executive offices.

7. Survival of Terms. This Agreement shall apply to and bind Purchaser and the Company and their respective permitted assignees and transferees, heirs, legatees, executors, administrators and legal successors.

8. Section 83(b) Election. Purchaser hereby acknowledges that he or she has been informed that, with respect to the exercise of an Option for Unvested Shares, an election (the "Election") may be filed by the Purchaser with the Internal Revenue Service, within thirty (30) days of the purchase of the exercised Shares, electing pursuant to Section 83(b) of the Code to be taxed currently on any difference between the purchase price of the exercised Shares and their Fair Market Value on the date of purchase. In the case of a Nonstatutory Stock Option, this will result in a recognition of taxable income to the Purchaser on the date of exercise, measured by the excess, if any, of the Fair Market Value of the exercised Shares, at the time the Option is exercised over the purchase price for the exercised Shares. Absent such an Election, taxable income will be measured and recognized by Purchaser at the time or times on which the Company's Repurchase Option lapses. Absent such an Election, alternative minimum taxable income will be measured and recognized by Purchaser at the time or times on which the Company's Repurchase Option lapses. Purchaser is strongly encouraged to seek the advice of his or her own tax consultants in connection with the purchase of the Shares and the advisability of filing of the Election under Section 83(b) of the Code. A form of Election under Section 83(b) is attached hereto as Exhibit C-4 for reference.

**PURCHASER ACKNOWLEDGES THAT IT IS PURCHASER'S SOLE RESPONSIBILITY AND NOT THE COMPANY'S TO FILE TIMELY THE ELECTION UNDER SECTION 83(b) OF THE CODE, EVEN IF PURCHASER REQUESTS THE COMPANY OR ITS REPRESENTATIVE TO MAKE THIS FILING ON PURCHASER'S BEHALF.**

9. Representations. Purchaser has reviewed with his own tax advisors the federal, state, local and foreign tax consequences of this investment and the transactions contemplated by this Agreement. Purchaser is relying solely on such advisors and not on any statements or representations of the Company or any of its agents. Purchaser understands that he (and not the Company) shall be responsible for his own tax liability that may arise as a result of this investment or the transactions contemplated by this Agreement.

10. Governing Law. This Agreement shall be governed by the internal substantive laws, but not the choice of law rules, of California.

Purchaser represents that he has read this Agreement and is familiar with its terms and provisions. Purchaser hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Board upon any questions arising under this Agreement.

IN WITNESS WHEREOF, this Agreement is deemed made as of the date first set forth above.

HANSOO KEYOUNG, M.D., PH.D.

CATALYST BIOSCIENCES, INC.

(Signature)

By: \_\_\_\_\_

Title: \_\_\_\_\_

Address:

Address:

260 Littlefield Avenue  
South San Francisco, CA 94080

**EXHIBIT C-2**

**ASSIGNMENT SEPARATE FROM CERTIFICATE**

INSTRUCTIONS: Please do not fill in any blanks other than the signature line. The purpose of this assignment is to enable the Company to exercise its “repurchase option,” as set forth in the Agreement, without requiring additional signatures on the part of the Purchaser.

FOR VALUE RECEIVED I, Hansoo Keyoung, M.D., Ph.D. hereby sell, assign and transfer unto Catalyst Biosciences, Inc. (the “Company”) ( ) shares of the Common Stock of the Company standing in my name of the books of said corporation represented by Certificate No. herewith and do hereby irrevocably constitute and appoint to transfer the said stock on the books of the within named corporation with full power of substitution in the premises.

This Stock Assignment may be used only in accordance with the Restricted Stock Purchase Agreement between the Company and the undersigned dated (the “Agreement”).

Dated:

Signature: \_\_\_\_\_

**EXHIBIT C-3**

**JOINT ESCROW INSTRUCTIONS**

Date:

Catalyst Biosciences, Inc.  
260 Littlefield Avenue  
South San Francisco, CA 94080  
Attn:

Dear Secretary:

As Escrow Agent for both Catalyst Biosciences, Inc. (the "Company"), and the undersigned purchaser of stock of the Company (the "Purchaser"), you are hereby authorized and directed to hold the documents delivered to you pursuant to the terms of that certain Restricted Stock Purchase Agreement (the "Agreement") between the Company and the undersigned, in accordance with the following instructions:

1. In the event the Company and/or any assignee of the Company (referred to collectively for convenience herein as the "Company") exercises the Company's repurchase option set forth in the Agreement, the Company shall give to Purchaser and you a written notice specifying the number of shares of stock to be purchased, the purchase price, and the time for a closing hereunder at the principal office of the Company. Purchaser and the Company hereby irrevocably authorize and direct you to close the transaction contemplated by such notice in accordance with the terms of said notice.

2. At the closing, you are directed (a) to date the stock assignments necessary for the transfer in question, (b) to fill in the number of shares being transferred, and (c) to deliver the stock assignments, together with the certificate evidencing the shares of stock to be transferred, to the Company or its assignee, against the simultaneous delivery to you of the purchase price (by cash, a check, or some combination thereof) for the number of shares of stock being purchased pursuant to the exercise of the Company's repurchase option.

3. Purchaser irrevocably authorizes the Company to deposit with you any certificates evidencing shares of stock to be held by you hereunder and any additions and substitutions to said shares as defined in the Agreement. Purchaser does hereby irrevocably constitute and appoint you as Purchaser's attorney-in-fact and agent for the term of this escrow to execute with respect to such securities all documents necessary or appropriate to make such securities negotiable and to complete any transaction herein contemplated, including but not limited to the filing with any applicable state blue sky authority of any required applications for consent to, or notice of transfer of, the securities. Subject to the provisions of this paragraph 3, Purchaser shall exercise all rights and privileges of a stockholder of the Company while the stock is held by you.

4. Upon written request of the Purchaser, but no more than once per calendar year, unless the Company's repurchase option has been exercised, you will deliver to Purchaser a certificate or certificates representing so many shares of stock as are not then subject to the Company's repurchase option. Within 120 days after cessation of Purchaser's continuous employment by or services to the Company, or any parent or subsidiary of the Company, you will deliver to Purchaser a certificate or certificates representing the aggregate number of shares held or issued pursuant to the Agreement and not purchased by the Company or its assignees pursuant to exercise of the Company's repurchase option.

5. If at the time of termination of this escrow you should have in your possession any documents, securities, or other property belonging to Purchaser, you shall deliver all of the same to Purchaser and shall be discharged of all further obligations hereunder.

6. Your duties hereunder may be altered, amended, modified or revoked only by a writing signed by all of the parties hereto.

7. You shall be obligated only for the performance of such duties as are specifically set forth herein and may rely and shall be protected in relying or refraining from acting on any instrument reasonably believed by you to be genuine and to have been signed or presented by the proper party or parties. You shall not be personally liable for any act you may do or omit to do hereunder as Escrow Agent or as attorney-in-fact for Purchaser while acting in good faith, and any act done or omitted by you pursuant to the advice of your own attorneys shall be conclusive evidence of such good faith.

8. You are hereby expressly authorized to disregard any and all warnings given by any of the parties hereto or by any other person or corporation, excepting only orders or process of courts of law and are hereby expressly authorized to comply with and obey orders, judgments or decrees of any court. In case you obey or comply with any such order, judgment or decree, you shall not be liable to any of the parties hereto or to any other person, firm or corporation by reason of such compliance, notwithstanding any such order, judgment or decree being subsequently reversed, modified, annulled, set aside, vacated or found to have been entered without jurisdiction.

9. You shall not be liable in any respect on account of the identity, authorities or rights of the parties executing or delivering or purporting to execute or deliver the Agreement or any documents or papers deposited or called for hereunder.

10. You shall not be liable for the outlawing of any rights under the Statute of Limitations with respect to these Joint Escrow Instructions or any documents deposited with you.

11. You shall be entitled to employ such legal counsel and other experts as you may deem necessary properly to advise you in connection with your obligations hereunder, may rely upon the advice of such counsel, and may pay such counsel reasonable compensation therefor.

12. Your responsibilities as Escrow Agent hereunder shall terminate if you shall cease to be an officer or agent of the Company or if you shall resign by written notice to each party. In the event of any such termination, the Company shall appoint a successor Escrow Agent.

13. If you reasonably require other or further instruments in connection with these Joint Escrow Instructions or obligations in respect hereto, the necessary parties hereto shall join in furnishing such instruments.

14. It is understood and agreed that should any dispute arise with respect to the delivery and/or ownership or right of possession of the securities held by you hereunder, you are authorized and directed to retain in your possession without liability to anyone all or any part of said securities until such disputes shall have been settled either by mutual written agreement of the parties concerned or by a final order, decree or judgment of a court of competent jurisdiction after the time for appeal has expired and no appeal has been perfected, but you shall be under no duty whatsoever to institute or defend any such proceedings.

15. Any notice required or permitted hereunder shall be given in writing and shall be deemed effectively given upon personal delivery or upon deposit in the United States Post Office, by registered or certified mail with postage and fees prepaid, addressed to each of the other parties thereunto entitled at the following addresses or at such other addresses as a party may designate by ten days' advance written notice to each of the other parties hereto.

16. By signing these Joint Escrow Instructions, you become a party hereto only for the purpose of said Joint Escrow Instructions; you do not become a party to the Agreement.

17. This instrument shall be binding upon and inure to the benefit of the parties hereto, and their respective successors and permitted assigns.

18. These Joint Escrow Instructions shall be governed by the internal substantive laws, but not the choice of law rules, of California.

HANSOO KEYOUNG, M.D., PH.D.

CATALYST BIOSCIENCES, INC.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
By

\_\_\_\_\_  
Residence Address

\_\_\_\_\_  
Title

ESCROW AGENT

\_\_\_\_\_  
Corporate Secretary

Dated:



**EXHIBIT C-4**

**ELECTION UNDER SECTION 83(b)  
OF THE INTERNAL REVENUE CODE OF 1986**

The undersigned taxpayer hereby elects, pursuant to Sections 55 and 83(b) of the Internal Revenue Code of 1986, as amended, to include in taxpayer's gross income or alternative minimum taxable income, as the case may be, for the current taxable year the amount of any compensation taxable to taxpayer in connection with taxpayer's receipt of the property described below

1. The name, address, taxpayer identification number and taxable year of the undersigned are as follows:

NAME: TAXPAYER: \_\_\_\_\_ SPOUSE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

IDENTIFICATION NO.: TAXPAYER: \_\_\_\_\_ SPOUSE: \_\_\_\_\_

TAXABLE YEAR:

2. The property with respect to which the election is made is described as follows:

shares (the "Shares") of the Common Stock of Catalyst Biosciences, Inc. (the "Company").

3. The date on which the property was transferred is: \_\_\_\_\_ .

4. The property is subject to the following restrictions:

The Shares may not be transferred and are subject to forfeiture under the terms of an agreement between the taxpayer and the Company. These restrictions lapse upon the satisfaction of certain conditions contained in such agreement.

5. The fair market value at the time of transfer, determined without regard to any restriction other than a restriction which by its terms will never lapse, of such property is: \$ \_\_\_\_\_ .

6. The amount (if any) paid for such property is: \$ \_\_\_\_\_ .

The undersigned has submitted a copy of this statement to the person for whom the services were performed in connection with the undersigned's receipt of the above-described property. The transferee of such property is the person performing the services in connection with the transfer of said property.

The undersigned understands that the foregoing election may not be revoked except with the consent of the Commissioner.

Dated: \_\_\_\_\_ , \_\_\_\_\_  
\_\_\_\_\_  
Taxpayer

The undersigned spouse of taxpayer joins in this election.

Dated: \_\_\_\_\_ , \_\_\_\_\_  
\_\_\_\_\_  
Spouse of Taxpayer