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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-Q

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For The Quarterly Period Ended June 30, 2008

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the Transition Period from _____ to _____

Commission File Number: 000-51173

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

Delaware	**56-2020050**
(State or Other Jurisdiction of Incorporation or Organization)	**(I.R.S. Employer Identification No.)**
200 East First Street, Suite 300 Winston-Salem, North Carolina **(Address of Principal Executive Offices)**	**27101** **(Zip Code)**

Registrant's telephone number, including area code: (336) 480-2100

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

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	☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

As of July 31, 2008, the registrant had 24,933,415 shares of common stock, $0.001 par value per share, outstanding.

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TARGACEPT, INC.

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PART I. Financial Information

Cautionary Note Regarding Forward-Looking Statements

This quarterly report includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, which we refer to as the Exchange Act. For this purpose, any statements contained in this quarterly report regarding the progress, timing or scope of the research and development of our product candidates or related regulatory filings or clinical trials, including the timing for reporting of results from AstraZeneca's Phase 2b clinical trial of AZD3480 (TC-1734) in mild to moderate Alzheimer's disease, the timing for completion of AstraZeneca's Phase 2b clinical trial of AZD3480 (TC-1734) in cognitive dysfunction in schizophrenia and the number of subjects to be enrolled in any of our clinical trials; any future payments that AstraZeneca or GlaxoSmithKline may make to us, our future operations, financial position, revenues, costs or expenses, or our strategies, prospects, plans, expectations or objectives, other than statements of historical fact, are forward-looking statements made under the provisions of The Private Securities Litigation Reform Act of 1995. In some cases, words such as "may," "will," "could," "would," "should," "expect," "intend," "plan," "anticipate," "believe," "estimate," "predict," "project," "potential," "continue," "ongoing," "scheduled" or other comparable words identify forward-looking statements. Actual results, performance or experience may differ materially from those expressed or implied by forward-looking statements as a result of various important factors, including our critical accounting policies and risks and uncertainties relating to: our dependence on the success of our collaboration with AstraZeneca and our alliance with GlaxoSmithKline; the amount and timing of resources that AstraZeneca devotes to completion of its Phase 2b clinical trials of AZD3480 (TC-1734); the significant control that AstraZeneca has over the development of AZD3480 (TC-1734); our ability to perform the research planned and budgeted for our preclinical research collaboration with AstraZeneca; AstraZeneca's right to terminate the preclinical research collaboration prior to the end of the planned four-year term; our ability to discover and develop product candidates under our alliance with GlaxoSmithKline; the results of clinical trials and non-clinical studies and assessments with respect to our product candidates; the conduct of such trials, studies and assessments, including the performance of third parties that we engage to execute them and difficulties or delays in the completion of subject enrollment or data analysis; the timing and success of submission, acceptance and approval of regulatory filings, including regulatory filings and submissions with respect to TC-5619; our ability to obtain substantial additional funding; our ability to establish additional strategic alliances and collaborations; and our ability to obtain, maintain and enforce patent and other intellectual property protection for our product candidates and discoveries. These and other risks and uncertainties are described in more detail under the caption "Risk Factors" in Item 1A of Part I of our Annual Report on Form 10-K for the year ended December 31, 2007 and in other filings that we make with the Securities and Exchange Commission, or SEC. As a result of the risks and uncertainties, the results or events indicated by the forward-looking statements may not occur. We caution you not to place undue reliance on any forward-looking statement.

Any forward-looking statements in this quarterly report represent our views only as of the date of this quarterly report and should not be relied upon as representing our views as of any subsequent date. We anticipate that subsequent events and developments may cause our views to change. Although we may elect to update these forward-looking statements publicly at some point in the future, we specifically disclaim any obligation to do so, except as required by applicable law. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make.

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Item 1. Financial Statements

TARGACEPT, INC.

BALANCE SHEETS

	June 30, 2008 (unaudited)	December 31, 2007
ASSETS		
Current assets:		
Cash and cash equivalents	$ 64,365,644	$ 53,403,092
Short-term investments	37,554,649	33,636,687
Collaboration revenue and accounts receivable	2,840,854	4,197,479
Inventories	119,193	140,413
Prepaid expenses	1,950,280	1,035,324
Total current assets	106,830,620	92,412,995
Property and equipment, net	7,056,092	6,114,555
Intangible assets, net of accumulated amortization of $223,437 and $204,555 at June 30, 2008 and December 31, 2007, respectively	418,563	437,445
Total assets	$ 114,305,275	$ 98,964,995
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 1,762,036	$ 2,295,912
Accrued expenses	4,423,502	5,460,643
Current portion of long-term debt	1,380,736	918,596
Current portion of deferred rent incentive	42,068	42,068
Current portion of deferred license fee revenue	6,478,772	6,478,772
Total current liabilities	14,087,114	15,195,991
Long-term debt, net of current portion	3,695,334	1,685,874
Deferred rent incentive, net of current portion	129,708	150,742
Deferred license fee revenue, net of current portion	27,108,707	30,348,093
Total liabilities	45,020,863	47,380,700
Commitments and contingencies		
Stockholders' equity:		
Common stock, $0.001 par value, 100,000,000 shares authorized; 24,915,353 and 20,503,419 shares issued and outstanding at June 30, 2008 and December 31, 2007, respectively	24,915	20,504
Capital in excess of par value	246,078,148	215,798,337
Accumulated deficit	(176,818,651)	(164,234,546)
Total stockholders' equity	69,284,412	51,584,295
Total liabilities and stockholders' equity	$ 114,305,275	$ 98,964,995

See accompanying notes.

TARGACEPT, INC.

STATEMENTS OF OPERATIONS
(unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2008	2007	2008	2007
Operating revenues:				
Collaboration research and development	$ 2,636,783	$ 2,075,341	$ 4,894,610	$ 3,201,926
Milestones and license fees from collaborations	2,319,693	562,500	3,939,386	1,125,000
Product sales, net	199,292	204,208	387,174	344,661
Grant revenue	—	—	210,593	221,652
Net operating revenues	5,155,768	2,842,049	9,431,763	4,893,239
Operating expenses:				
Research and development (including stock-based compensation of $291,611 and $225,521 for the three months ended June 30, 2008 and 2007, respectively; and $554,236 and $429,166 for the six months ended June 30, 2008 and 2007, respectively)	10,517,636	9,079,328	19,599,218	15,269,665
General and administrative (including stock-based compensation of $232,528 and $1,416,252 for the three months ended June 30, 2008 and 2007, respectively; and $472,792 and $1,503,528 for the six months ended June 30, 2008 and 2007, respectively)	1,893,904	2,628,446	3,585,002	3,966,636
Cost of product sales	177,677	205,134	381,154	370,625
Total operating expenses	12,589,217	11,912,908	23,565,374	19,606,926
Loss from operations	(7,433,449)	(9,070,859)	(14,133,611)	(14,713,687)
Other income (expense):				
Interest income	699,551	837,103	1,669,056	1,701,016
Interest expense	(68,952)	(28,838)	(119,550)	(43,305)
Total other income (expense)	630,599	808,265	1,549,506	1,657,711
Net loss	$ (6,802,850)	$ (8,262,594)	$(12,584,105)	$(13,055,976)
Basic and diluted net loss per share	$ (0.27)	$ (0.43)	$ (0.52)	$ (0.68)
Weighted average common shares outstanding—basic and diluted	24,905,965	19,147,011	24,370,195	19,141,932

See accompanying notes.

TARGACEPT, INC.

STATEMENTS OF CASH FLOWS
(unaudited)

	Six Months Ended June 30,	
	2008	2007
Operating activities		
Net loss	$(12,584,105)	$(13,055,976)
Adjustments to reconcile net loss to net cash (used in) provided by operating activities:		
Depreciation and amortization	836,304	418,435
Stock-based compensation expense	1,027,028	1,932,694
Recognition of deferred rent incentive	(21,034)	(201,323)
Changes in operating assets and liabilities:		
Collaboration revenue and accounts receivable	1,356,625	21,124,614
Inventories	21,220	2,655
Prepaid expenses and accrued interest receivable	(966,831)	(217,429)
Accounts payable and accrued expenses	(1,571,017)	(814,945)
Deferred license fee revenue	(3,239,386)	(1,125,000)
Net cash (used in) provided by operating activities	(15,141,196)	8,063,725
Investing activities		
Purchase of investments	(67,800,082)	(31,362,762)
Proceeds from sale of investments	63,933,995	23,391,430
Purchase of property and equipment	(1,758,959)	(1,059,268)
Net cash used in investing activities	(5,625,046)	(9,030,600)
Financing activities		
Proceeds from issuance of long-term debt	4,810,702	2,000,000
Principal payments on long-term debt	(2,339,102)	(282,045)
Proceeds from issuance of common stock	29,257,194	89,889
Net cash provided by financing activities	31,728,794	1,807,844
Net increase in cash and cash equivalents	10,962,552	840,969
Cash and cash equivalents at beginning of period	53,403,092	41,744,363
Cash and cash equivalents at end of period	$ 64,365,644	$ 42,585,332

See accompanying notes

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS
June 30, 2008

1. The Company and Nature of Operations

Targacept, Inc., a Delaware corporation (the Company), was formed on March 7, 1997. The Company is a biopharmaceutical company engaged in the design, discovery and development of NNR Therapeutics™, a new class of drugs for the treatment of diseases and disorders of the central nervous system. The Company's NNR Therapeutics selectively target neuronal nicotinic receptors, or NNRs. Its facilities are located in Winston-Salem, North Carolina.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying unaudited financial statements have been prepared in accordance with accounting principles generally accepted in the United States, or GAAP, for interim financial information and the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by GAAP for complete financial statements and should be read in conjunction with the Company's audited financial statements and notes thereto included in its Annual Report on Form 10-K for the year ended December 31, 2007. In the opinion of the Company's management, all adjustments, consisting of normal recurring adjustments, necessary for a fair presentation of its financial position, operating results and cash flows for the periods presented have been included. Operating results for the three and six months ended June 30, 2008 and 2007 are not necessarily indicative of the results that may be expected for the full year, for any other interim period or for any future year.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts of assets, liabilities, revenue and expenses reported in the financial statements and accompanying notes. Actual results could differ from these estimates.

Fair Value Accounting

Effective January 1, 2008, the Company adopted Statement of Financial Accounting Standard, or SFAS, No. 157, *Fair Value Measurements*, or SFAS 157. SFAS 157 defines fair value, provides a consistent framework for measuring fair value under GAAP and expands fair value financial statement disclosure requirements. SFAS 157 does not require any new fair value measurements. SFAS 157 applies only to accounting pronouncements that already require or permit fair value measures, except for standards that relate to share-based payments such as SFAS No. 123 (revised 2004), *Share-Based Payment*, and related interpretations.

The valuation techniques of SFAS 157 are based on both observable and unobservable inputs. Observable inputs reflect readily obtainable data from independent sources, and unobservable inputs reflect the Company's market assumptions. SFAS 157 classifies these inputs into the following hierarchy:

Level 1 Inputs– Quoted prices for identical instruments in active markets.

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
June 30, 2008

2. Summary of Significant Accounting Policies (continued)

Level 2 Inputs– Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and valuations whose inputs are observable or whose significant value drivers are observable.

Level 3 Inputs– Instruments with primarily unobservable value drivers.

As of June 30, 2008, the Company had $37,400,000 invested in available-for-sale marketable securities, comprised of $22,050,000 invested in certificates of deposit and $15,350,000 invested in student loan auction rate securities, or ARS. The Company determines fair value for certificates of deposit through quoted market prices, or Level 1 inputs. Prior to January 1, 2008 and as of June 30, 2008, the Company determined fair value for student loan ARS based on quoted market prices in active markets for identical assets. However, for a portion of the six months ended June 30, 2008, the Company determined fair value for student loan ARS based on inputs and value drivers that are primarily unobservable, or Level 3 inputs, as discussed under “Investments” below. The adoption of SFAS No. 157 had no effect on the valuation of the Company’s available-for-sale marketable securities as of June 30, 2008.

The respective fair values of the Company’s available-for-sale marketable securities are summarized in the table below:

	June 30, 2008			
	Fair Value Measurements Using			Assets at Fair Value
	Level 1	Level 2	Level 3	
Asset				
Certificates of Deposit	$22,050,000	$ —	$ —	$22,050,000
Student Loan Auction Rate Securities	15,350,000	—	—	15,350,000
Total Assets	$37,400,000	$ —	$ —	$37,400,000

The table below provides a reconciliation of the Company’s fair value measurements that used Level 3 inputs for the three and six months ended June 30, 2008:

	Three Months Ended June 30, 2008	Six Months Ended June 30, 2008
Level 3 balance at beginning of period	$ 16,453,000	$ —
Transfers into Level 3	—	16,750,000
Transfers out of Level 3	(15,350,000)	(15,350,000)
Fair value adjustments	297,000	—
Redemptions	(1,400,000)	(1,400,000)
Level 3 balance at end of period	$ —	$ —

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
June 30, 2008

2. Summary of Significant Accounting Policies (continued)

Investments

In accordance with the Company's investment policy, surplus cash is invested with high credit quality financial institutions in money market accounts, certificates of deposit, mutual funds and student loan ARS. The Company determines the appropriate classification of marketable securities at the time of purchase and reevaluates such designation as of each balance sheet date. All marketable securities owned during the three and six months ended June 30, 2008 and 2007 were classified as available-for-sale. Interest and dividend income on investments are included in "Interest income." The cost of securities sold is based on the specific identification method.

Student loan ARS are variable rate debt instruments that have a contractual maturity of approximately 20 to 40 years. These investments are intended to provide liquidity via an auction process that resets the applicable interest rate at predetermined calendar intervals, enabling investors to either roll over their holdings or gain immediate liquidity by selling them at par value. Auctions for the student loan ARS owned by the Company are scheduled at 28-day intervals. As of June 30, 2008, the student loan ARS owned by the Company are rated AAA by a major credit rating agency and the underlying collateral is guaranteed by the Federal Family Education Loan Program (FFELP).

Prior to the first quarter of 2008, the Company's history with the student loan ARS market had been that these investments could be redeemed at any of the regularly scheduled 28-day auctions and the Company believed that the risk that these investments could not be redeemed within a year was minimal. Accordingly, the Company has historically viewed student loan ARS as available for use in current operations and classified them as short-term investments in accordance with Accounting Research Bulletin No. 43, Chapter 31, *Working Capital – Current Assets and Current Liabilities*, even though their stated maturity dates may be more than one year beyond the balance sheet date. As of January 1, 2008, the Company recorded its student loan ARS at par based on Level 1 inputs.

During 2008, the Company continued to own student loan ARS. The uncertainties experienced in the credit markets in 2008 affected the student loan ARS market, and, beginning in February 2008, auctions for the Company's student loan ARS failed to settle on their respective settlement dates. The Company earned interest on the investments that failed to settle at auction at the maximum contractual rate, and the interest was paid at each scheduled auction date. Based on the uncertainty of the short-term liquidity of the student loan ARS that existed as of March 31, 2008, the Company did not classify its investments in student loan ARS as of that date as short-term investments. The Company estimated the fair values of its student loan ARS using discounted cash flow models. These models considered, among other things, the expected timing for successful auctions or refinancings in the future, the composition and quality of the underlying collateral and the creditworthiness of the issuer. Because these inputs are not observable, they are classified as Level 3 inputs under SFAS 157. Based on these models, the Company estimated the fair value of its student loan ARS owned as of March 31, 2008 to be $16,453,000, which reflected a fair value adjustment of $297,000 that was considered a temporary adjustment, and recorded a corresponding unrealized loss in an amount equal to the fair value adjustment in accumulated other comprehensive income, a component of stockholders' equity.

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
June 30, 2008

2. Summary of Significant Accounting Policies (continued)

In June 2008, $1,400,000 of the $16,750,000 total par value of the Company's student loan ARS was redeemed by the issuers of the underlying securities. Based on the June 2008 redemption and expected future redemptions, the Company determined the carrying value of its student loan ARS as of June 30, 2008 based on Level 1 inputs, reversed the fair value adjustment that had decreased the carrying value of its student loan ARS by $297,000 as of March 31, 2008 and recorded its remaining student loan ARS as of June 30, 2008 as short-term investments at their par value of $15,350,000. The full par value of the Company's remaining student loan ARS was subsequently redeemed by the issuers of the underlying securities in July 2008.

Revenue Recognition

The Company uses revenue recognition criteria in Staff Accounting Bulletin No. 101, *Revenue Recognition in Financial Statements*, or SAB 101, as amended by Staff Accounting Bulletin No. 104, *Revision of Topic 13*, or SAB 104.

In determining the accounting for collaboration agreements, the Company follows the provisions of Emerging Issues Task Force, or EITF, Issue 00-21, *Revenue Arrangements with Multiple Deliverables*, or EITF 00-21, for multiple element revenue arrangements. EITF 00-21 provides guidance on whether an arrangement that involves multiple revenue-generating activities or deliverables should be divided into separate units of accounting for revenue recognition purposes and, if this division is required, how the arrangement consideration should be allocated among the separate units of accounting. If the arrangement constitutes separate units of accounting according to the EITF's separation criteria, a revenue-recognition policy must be determined for each unit. If the arrangement constitutes a single unit of accounting, the revenue-recognition policy must be determined for the entire arrangement.

Collaboration research and development revenue is earned and recognized as research is performed and related expenses are incurred. Non-refundable upfront fees, which may include initial payments upon commencement of the contractual relationship, payment representing a common stock purchase premium or payment to secure a right for a future license, are recorded as deferred license fee revenue and recognized into revenue as milestone and license fees from collaborations on a straight-line basis over the expected development period, to the extent such fees are attributable to a specific licensed product candidate, or otherwise over the expected period of the Company's performance obligations.

Revenue for non-refundable payments based on the achievement of collaboration milestones is recognized when the milestones are achieved if all of the following conditions are met: (1) achievement of the milestone event was not reasonably assured at the inception of the arrangement; (2) substantive effort is involved to achieve the milestone event; and (3) the amount of the milestone payment appears reasonable in relation to the effort expended, the other milestone payments in the arrangement and the related risk associated with achievement of the milestone event. If any of these conditions is not met, the milestone payment is recorded as deferred licensee fee revenue and recognized into revenue on a straight-line basis over the expected period of the Company's performance obligations.

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
June 30, 2008

2. Summary of Significant Accounting Policies (continued)

Revenue for specific research and development costs that are reimbursable under collaboration agreements is recognized in accordance with EITF Issue 99-19, *Reporting Revenue Gross as a Principal Versus Net as an Agent*, and EITF Issue 01-14, *Income Statement Characterization of Reimbursements Received for "Out-of-Pocket" Expenses Incurred*. The revenue associated with these reimbursable amounts is reflected as a component of collaboration revenue and the costs associated with these reimbursable amounts is reflected as a component of research and development expenses.

Product sales revenue is recognized when goods are shipped, at which point title has passed, net of allowances for returns and discounts. Revenue from grants is recognized as the Company performs the work and incurs reimbursable costs in accordance with the objectives of the award.

Income Taxes

The Company uses the liability method in accounting for income taxes as required by SFAS No. 109, *Accounting for Income Taxes*, or SFAS 109. The Company follows Financial Accounting Standards Interpretation No. 48, *Accounting for Uncertainty in Income Taxes*, or FIN 48, which clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements in accordance with SFAS 109. Under SFAS No. 109, deferred tax assets and liabilities are recognized for operating loss and tax credit carryforwards and for the future tax consequences attributable to the differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the results of operations in the period that includes the enactment date. A valuation allowance is recorded to reduce the carrying amounts of deferred tax assets unless it is more likely than not that such assets will be realized. FIN 48 prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. FIN 48 also provides guidance on de-recognition, classification, interest and penalties, accounting in interim periods, disclosures and transition. The Company's policy is to classify any interest recognized in accordance with FIN 48 as interest expense and to classify any penalties recognized in accordance with FIN 48 as an expense other than income tax expense.

The Company had no unrecognized tax benefits or associated interest or penalties either at adoption of FIN 48 on January 1, 2007 or as of June 30, 2008. Since the Company has incurred cumulative operating losses since inception, all tax years remain open to examination by major jurisdictions.

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
June 30, 2008

2. Summary of Significant Accounting Policies (continued)

Net Loss Per Share

The Company computes net loss per share in accordance with SFAS No. 128, *Earnings Per Share*, or SFAS 128. Under the provisions of SFAS 128, basic net loss per share attributable to common stockholders, or Basic EPS, is computed by dividing the net loss by the weighted average number of common shares outstanding. Diluted net loss per share, or Diluted EPS, is computed by dividing the net loss by the weighted average number of common shares and dilutive common share equivalents outstanding.

Common share equivalents consist of the incremental common shares issuable upon the exercise of stock options. The Company has excluded all outstanding stock options from the calculation of net loss per share because their effect is antidilutive for the periods presented. As a result, Diluted EPS is identical to Basic EPS for the periods presented.

Had the Company been in a net income position, potentially dilutive outstanding stock options of 3,091,002 and 2,581,496 for the three months ended June 30, 2008 and 2007, respectively, and 3,097,277 and 2,431,422 for the six months ended June 30, 2008 and 2007, respectively, in each case calculated on a weighted-average basis, may have been included in the calculation.

Common Stock

On January 23, 2008, the Company issued 4,370,000 shares of common stock in a public offering at $7.07 per share. The offering resulted in proceeds to the Company of $29,109,000 after underwriters' discounts and commissions and offering expenses payable by the Company.

During the three and six months ended June 30, 2008, the Company issued 15,573 and 41,934 shares of common stock, respectively, upon the exercise of stock options.

Nonrefundable Advance Payments

The Company adopted EITF Issue 07-3, *Accounting for Nonrefundable Advance Payments for Goods or Services to be Used in Future Research and Development Activities*, or EITF 07-3, on January 1, 2008. EITF 07-3 concluded that nonrefundable advance payments for goods or services to be received in the future for use in research and development activities should be deferred and capitalized and that the capitalized amounts should be expensed as the goods are delivered or the services are rendered. If an entity's expectations change such that it does not expect it will need the goods to be delivered or the services to be rendered, capitalized nonrefundable advance payments should be charged to expense. Application of the provisions of EITF 07-3 resulted in increased total assets and decreased net loss of $152,000 and $443,000, or $0.01 and $0.02 per share, for the three and six months ended June 30, 2008, respectively.

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
June 30, 2008

2. Summary of Significant Accounting Policies (continued)

Comprehensive Loss

For the three months ended June 30, 2008, the Company's comprehensive loss was $6,506,000, which included a net loss of $6,803,000 adjusted to reflect the recovery of the $297,000 previously recorded as a fair value adjustment to its student loan ARS, as discussed under "Investments" above. The Company's comprehensive loss for the six months ended June 30, 2008 and for each of the three and six months ended June 30, 2007 equaled its reported net loss.

3. Inventories

Inventories consisted of the following as of the respective dates indicated:

	June 30, 2008	December 31, 2007
Raw materials	$ 51,877	$ 51,877
Finished goods	67,316	88,536
	$119,193	$ 140,413

4. Strategic Alliance and Collaboration Agreements

AstraZeneca AB

In December 2005, the Company entered into a collaborative research and license agreement with AstraZeneca AB under which the Company granted AstraZeneca exclusive development and worldwide commercialization rights to the Company's product candidate known as AZD3480 (TC-1734) as a treatment for Alzheimer's disease, cognitive dysfunction in schizophrenia and potentially other conditions marked by cognitive impairment such as attention deficit hyperactivity disorder, age associated memory impairment and mild cognitive impairment. The collaboration agreement also provides for a multi-year preclinical research collaboration between the Company and AstraZeneca. The Company is eligible to receive research fees, license fees and milestone payments under its collaboration agreement with AstraZeneca. The amount of research fees, license fees and milestone payments will depend on the extent of the Company's research activities and the timing and achievement of development, regulatory and first commercial sale milestone events.

AstraZeneca paid the Company an initial fee of $10,000,000 in February 2006. Based on the collaboration agreement terms, the Company allocated $5,000,000 of the initial fee to the research collaboration, which the Company is recognizing as revenue on a straight-line basis over the planned four-year term of the research collaboration. The Company deferred recognition of the remaining $5,000,000 of the initial fee, which was allocated to the AZD3480 (TC-1734) license grants, until December 2006, when AstraZeneca made a determination to proceed with further development of AZD3480 (TC-1734) following the completion of additional clinical and non-clinical studies that AstraZeneca conducted during 2006. On December 27, 2006, AstraZeneca communicated its decision to proceed with further development of AZD3480 (TC-1734) to the Company. As a result, in the first quarter of 2007, the Company began recognizing the $5,000,000 of the initial fee that it

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
June 30, 2008

4. Strategic Alliance and Collaboration Agreements (continued)

had previously deferred as revenue on a straight-line basis over the estimated five-year development period for AZD3480 (TC-1734). The Company recognized $563,000 of the initial fee as revenue for each of the three months ended June 30, 2008 and 2007, and the Company recognized $1,125,000 of the initial fee as revenue for each of the six months ended June 30, 2008 and 2007.

The Company expects to recognize any revenue based on the achievement of milestones under the collaboration agreement upon achievement of the milestone event, if the Company determines that the revenue satisfies the revenue recognition requirements of SAB 101, as amended by SAB 104. AstraZeneca's determination to proceed with further development of AZD3480 (TC-1734) triggered a $20,000,000 payment in accordance with the agreement, and the Company recognized the full amount as revenue in December 2006. The payment was received in January 2007 in accordance with the terms of the agreement.

Under the agreement, the Company is also eligible to receive additional payments of up to $249,000,000, contingent upon the achievement of development, regulatory and first commercial sale milestones for AZD3480 (TC-1734) for three indications, as well as stepped double-digit royalties dependent on sales achieved following regulatory approval. Under the terms of a sponsored research agreement and a subsequent license agreement between the Company and the University of Kentucky Research Foundation, or UKRF, Targacept is required to pay UKRF a low single digit percentage of any payments that are received from AstraZeneca related to AZD3480 (TC-1734).

In 2006, during the period that AstraZeneca conducted additional safety and product characterization studies, AstraZeneca agreed to pay the Company research fees equal to 50% of the Company's research expenses in the parties' preclinical research collaboration. The Company recorded these fees as deferred revenue pending AstraZeneca's decision whether to proceed with further development of AZD3480 (TC-1734). As a result of AstraZeneca's decision to proceed with further development of AZD3480 (TC-1734), in December 2006, the Company recognized as collaboration research and development revenue all previously deferred research fees, plus the other 50% of the Company's research expenses incurred in the research collaboration that had not previously been recorded, which totaled $4,672,000. Subsequently, the Company has recognized collaboration research and development revenue as the research is performed and related expenses are incurred. The Company recognized collaboration research and development revenue of $2,590,000 and $1,837,000 for the three months ended June 30, 2008 and 2007, respectively, and $4,848,000 and $2,963,000 for the six months ended June 30, 2008 and 2007, respectively.

In October 2007, the Company provided notice under its agreement with AstraZeneca offering AstraZeneca the right to license its product candidate TC-5619 for specified conditions characterized by cognitive impairment. Based on a subsequent election by AstraZeneca made under the terms of the agreement, AstraZeneca paid the Company $2,000,000 and the Company agreed to develop TC-5619 independently through completion of Phase 1 clinical development and a Phase 2 proof of concept clinical trial in accordance with a mutually acceptable development plan, following which AZ has the right to license TC-5619. The Company is recognizing the $2,000,000 payment as revenue on a straight-line basis over the expected development period for TC-5619 to reach proof of concept. Accordingly, the Company recognized $231,000 and $462,000 of the payment as revenue for the three and six months ended June 30, 2008, respectively.

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
June 30, 2008

4. Strategic Alliance and Collaboration Agreements (continued)

In May 2008, the Company received a $200,000 payment from AstraZeneca upon achievement of a milestone event related to the development of a product candidate under the parties' preclinical research collaboration. The Company recognized the full $200,000 as revenue upon achievement of the milestone event because the event met each of the conditions required for immediate recognition under the Company's revenue recognition policy (see Note 2).

GlaxoSmithKline

On July 27, 2007, the Company entered into a product development and commercialization agreement with SmithKline Beecham Corporation, doing business as GlaxoSmithKline, and Glaxo Group Limited, which are referred to together as GlaxoSmithKline, that sets forth the terms of an alliance designed to discover, develop and market product candidates that selectively target specified NNR subtypes in five therapeutic focus areas: pain, smoking cessation, addiction, obesity and Parkinson's disease.

Under the product development and commercialization agreement, the Company has agreed, for specified periods of time, to use diligent efforts to conduct research activities designed to discover product candidates that target specified NNR subtypes, to develop the product candidate identified as the lead for each therapeutic focus area of the alliance through a Phase 2 proof of concept trial and to develop up to two other product candidates for each therapeutic focus area to a specified stage of preclinical development. With respect to each therapeutic focus area in the alliance, if the Company achieves clinical proof of concept with respect to a lead product candidate, GlaxoSmithKline would have an exclusive option for an exclusive license to that lead product candidate and up to two other product candidates in development in the alliance for the same therapeutic focus area on a worldwide basis. If GlaxoSmithKline exercises its option and pays the applicable exercise fee, GlaxoSmithKline would become responsible for using diligent efforts to conduct later-stage development and commercialization of the lead product candidate at its sole expense. GlaxoSmithKline's exclusive license would include all fields of use other than those indications for which the Company has granted development and commercialization rights for product candidates under its collaboration agreement with AstraZeneca AB.

The terms of the alliance provide for the Company to conduct its research and development activities under the product development and commercialization agreement at its sole expense. The Company is, however, eligible to receive milestone payments from GlaxoSmithKline if it successfully advances product candidates subject to the alliance through preclinical and clinical development.

Under the product development and commercialization agreement and a related stock purchase agreement, GlaxoSmithKline made an initial payment to the Company of $20,000,000 and purchased 1,275,502 shares of the Company's common stock for an aggregate purchase price of $15,000,000. The purchase price paid by GlaxoSmithKline reflected an aggregate deemed premium of $3,520,000, based on the closing price of the Company's common stock on the trading day immediately preceding the date that the agreements were signed and announced. The Company recorded both the initial payment made by GlaxoSmithKline and the deemed premium paid for the shares of the Company's common stock purchased by GlaxoSmithKline as deferred license fee revenue and is recognizing them into revenue on a straight-line basis over the estimated term of the Company's research and early development

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
June 30, 2008

4. Strategic Alliance and Collaboration Agreements (continued)

obligations under the agreement. Currently, the Company estimates the term of such obligations to be nine years. The Company recognized $653,000 and $1,307,000 of the initial payment and deemed premium as revenue for the three and six months ended June 30, 2008, respectively.

The Company is also eligible to receive up to $1,500,000,000 in additional payments from GlaxoSmithKline, contingent upon the achievement of specified discovery, development, regulatory and commercial milestones across the five therapeutic focus areas of the alliance, as well as stepped double-digit royalties dependent on sales achieved following regulatory approval for any product licensed by GlaxoSmithKline. The Company expects to recognize any revenue based on the achievement of milestones under the agreement upon achievement of the milestone event, if the Company determines that the revenue satisfies the revenue recognition requirements of SAB 101, as amended by SAB 104. The amounts that the Company may receive will depend on the success of the Company's research and development activities, the timing and achievement of the discovery, development, regulatory and commercial milestone events and whether GlaxoSmithKline exercises any options that are triggered under the agreement.

In December 2007, the Company received a $6,000,000 payment from GlaxoSmithKline upon the Company's initiation of a Phase 1 clinical trial of TC-6499, a milestone event under the agreement. The Company determined the payment did not meet each of the conditions of its revenue recognition policy (see Note 2) required for recognition of the full amount into revenue upon achievement of the milestone. Specifically, based on the progress of this product candidate as of inception of the agreement, achievement of this milestone was reasonably assured within the meaning of the Company's revenue recognition policy. Therefore, the Company recorded the payment as deferred license fee revenue and is recognizing it into revenue on a straight-line basis over the estimated term of the Company's research and early development obligations under the agreement. Accordingly, the Company recognized $173,000 and $346,000 of the payment as revenue for the three and six months ended June 30, 2008, respectively.

In May 2008, the Company received a $500,000 payment from GlaxoSmithKline upon achievement of a milestone event related to progress in its smoking cessation program. The Company recognized the full $500,000 as revenue upon achievement of the milestone event because the event met each of the conditions required for immediate recognition under the Company's revenue recognition policy (see Note 2).

5. Long-term Debt

In March 2008, the Company entered into a loan agreement with a bank pursuant to which the Company initially borrowed $4,811,000 and has up to an aggregate of $489,000 in additional borrowing capacity available at any time prior to October 1, 2008 to fund the purchase of equipment, furnishings, software and other fixed assets and enable the refinancing of its existing loan facility with R.J. Reynolds Tobacco Holdings, Inc., or RJRT. Under the terms of the agreement, borrowings under the loan facility may be made in up to four term loans and each loan bears interest, at the Company's election, at either (1) the One Month LIBOR Rate plus 2.15% per annum, as adjusted monthly on the first day of each month, or (2) a fixed rate to be calculated by the bank at the closing of the loan equal to the bank's

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
June 30, 2008

5. Long-term Debt (continued)

fixed rate cost of funds index corresponding to the term of the loan plus 2.15% per annum. The agreement provides for repayment of each loan over a period determined by the Company, not to exceed four years, in equal monthly installments of principal and interest and for a first priority security interest in favor of the bank in the assets acquired with the proceeds of the loan facility. The Company's March 2008 loan under the loan facility bears interest at a rate of 5.231% per annum and is repayable in equal monthly installments of $112,000 beginning April 1, 2008 and through the maturity date of March 1, 2012. The Company used $1,679,000 of the proceeds from the loan to pay and satisfy in full the principal and interest outstanding on two of the tranches under its loan facility with RJRT and granted a first priority security interest in favor of the bank in assets previously acquired with the proceeds of those tranches.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

You should read the following discussion and analysis of our financial condition and results of operations together with our financial statements and accompanying notes included in this quarterly report and our audited financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2007, which is on file with the SEC. In addition to historical information, the following discussion contains forward-looking statements that involve risks, uncertainties and assumptions. Our actual results, performance or experience could differ materially from those indicated by the forward-looking statements due to various important factors, risks and uncertainties, including, but not limited to, those set forth under "Cautionary Note Regarding Forward-Looking Statements" in Part I of this quarterly report and under "Risk Factors" in Item 1A of Part I of our Annual Report on Form 10-K for the year ended December 31, 2007 and other filings that we make with the SEC.

Overview

Background

We are a biopharmaceutical company engaged in the design, discovery and development of NNR Therapeutics, a new class of drugs for the treatment of multiple diseases and disorders of the central nervous system. Our NNR Therapeutics selectively target a class of receptors known as neuronal nicotinic receptors, or NNRs. We currently have clinical-stage product candidates for target indications generally in three therapeutic areas: cognitive impairment, depression and anxiety, and pain. We also have preclinical programs focused in smoking cessation, addiction, obesity, pain, Parkinson's disease and inflammation. We have a cognition-focused collaboration with AstraZeneca and a strategic alliance with GlaxoSmithKline. We have received $73.7 million in the aggregate from AstraZeneca and GlaxoSmithKline, representing upfront fees, a common stock purchase and milestone payments, and have earned an additional $17.2 million in collaboration research and development revenue from our collaboration with AstraZeneca.

Our lead product candidate is a novel small molecule that we have historically referred to as TC-1734 and that our strategic collaborator, AstraZeneca, refers to as AZD3480. AZD3480 (TC-1734) modulates the activity of the a4ß2 NNR. In December 2005, we entered into a collaborative research and license agreement with AstraZeneca AB for the development and worldwide commercialization of AZD3480 (TC-1734) as a treatment for Alzheimer's disease, cognitive dysfunction in schizophrenia and potentially other conditions characterized by cognitive impairment such as attention deficit hyperactivity disorder, or ADHD, age associated memory impairment, or AAMI, and mild cognitive impairment, or MCI. AstraZeneca is currently conducting two Phase 2b clinical trials of AZD3480 (TC-1734), one in mild to moderate Alzheimer's disease, which is referred to as the "Sirocco" trial, and one in cognitive dysfunction in schizophrenia, which is referred to as the "HALO" trial. Based on information provided to us by AstraZeneca, we expect to report top-line results from the Sirocco trial in September 2008 and that the HALO trial will be completed by the end of 2008.

In addition to the Sirocco and HALO trials, we and AstraZeneca initiated a single site exploratory Phase 2 clinical trial of AZD3480 (TC-1734) in adults with ADHD in the second quarter of 2008. AstraZeneca has agreed to provide clinical trial material for the trial and we have agreed to provide funding for the trial.

We and AstraZeneca are also conducting a preclinical research collaboration under the agreement that is designed to discover and develop additional compounds that, like AZD3480 (TC-1734), act on the a4ß2 NNR as treatments for conditions characterized by cognitive impairment. AstraZeneca pays us research fees, based on a reimbursement rate specified under the agreement, for research services rendered in the preclinical research collaboration, subject to specified limits. The research term began in January 2006 and has a planned term of four years.

In July 2007, we entered into a product development and commercialization agreement with SmithKline Beecham Corporation, doing business as GlaxoSmithKline, and Glaxo Group Limited. SmithKline Beecham Corporation and Glaxo Group Limited are referred to together in this quarterly report as GlaxoSmithKline. The agreement sets forth the terms of an alliance designed to discover, develop and market product candidates that selectively target specified NNR subtypes in five therapeutic focus areas: pain, smoking cessation, addiction, obesity and Parkinson's disease.

Our other clinical-stage product candidates, in addition to AZD3480 (TC-1734), are described below.

- *TC-5619*. TC-5619 is a novel small molecule that we plan to develop for cognitive dysfunction in schizophrenia and potentially one or more other conditions characterized by cognitive impairment. TC-5619 modulates the activity of the a7 NNR. We have completed a Phase 1 single rising dose clinical trial of TC-5619 in which the product candidate was generally well tolerated at a dose up to 600 mg. We plan to initiate a Phase 1 multiple rising dose clinical trial of TC-5619 in the third quarter of 2008. Following our completion of Phase 1 clinical development and a Phase 2 clinical proof of concept trial of TC-5619, AstraZeneca has the right to license TC-5619 for schizophrenia and various conditions characterized by cognitive impairment on terms specified in our agreement.
- *TC-5214*. TC-5214 is a product candidate that we are developing as an augmentation therapy for major depressive disorder, or MDD. TC-5214, which is the S(+) enantiomer of mecamylamine hydrochloride, inhibits the activity of various NNR subtypes, including the a4ß2 NNR. We are conducting an ongoing Phase 2b clinical trial of TC-5214. We have completed the dosing phase of a Phase 1 single rising dose clinical trial of TC-5214.
- *TC-6499*. TC-6499 is novel small molecule that we plan to develop as a treatment for neuropathic pain. TC-6499 modulates the activity of the a4ß2 NNR. We have completed a Phase 1 single rising dose clinical trial of TC-6499 and plan to initiate two additional Phase 1 clinical trials in the third quarter of 2008. TC-6499 is subject to a contingent future option of GlaxoSmithKline under the terms of our alliance.
- *TC-2216*. Our depression and anxiety program also includes the novel small molecule TC-2216. TC-2216 inhibits the activity of the a 4ß2 NNR. We have completed a Phase 1 single rising dose clinical trial of this product candidate. We may in the future elect to develop one of the enantiomers of TC-2216 in lieu of further development of TC-2216. However, based on our development of TC-5214 and our current budget management plans, we do not expect that we will conduct further clinical development of TC-2216 or either of its enantiomers in 2008.

We trace our scientific lineage to a research program initiated by R.J. Reynolds Tobacco Company in 1982 to study the activity and effects of nicotine in the body and the function of nicotinic receptors. We were incorporated in 1997 as a wholly owned subsidiary of RJR. In August 2000, we became an independent company when we issued and sold stock to venture capital investors. Since our inception, we have had limited revenue from product sales and have funded our operations principally through the sale of equity securities, revenue from collaboration agreements and grants and equipment and building lease incentive financing. We have devoted substantially all of our resources to the discovery and development of our product candidates and technologies, including the design, conduct and management of preclinical and clinical studies and related manufacturing, regulatory and clinical affairs, as well as intellectual property prosecution.

We generated net income for the fourth quarter and year ended December 31, 2006 due primarily to the recognition of revenue derived under our agreement with AstraZeneca. Except for these periods, we have never been profitable. As of June 30, 2008, we had an accumulated deficit of $176.8 million. We expect to incur substantial losses for the foreseeable future as we expand our clinical trial activity, as our clinical-stage and preclinical product candidates advance through the development cycle, as we progress our programs in the therapeutic focus areas of our alliance with GlaxoSmithKline and our preclinical research collaboration with AstraZeneca and as we invest in additional product opportunities and research programs and expand our research and development infrastructure. Clinical trials and preclinical studies are time-consuming, expensive and may never yield a product that will generate revenue.

We believe that period-to-period comparisons of our results of operations are not meaningful and should not be relied upon as indicative of our future performance.

Recent Developments

In July 2008, we announced the initiation of a Phase 2b clinical trial of TC-5214 as an augmentation therapy in subjects with MDD. The design of the trial includes two phases. In the first phase, subjects diagnosed with MDD receive citalopram hydrobromide, a marketed selective serotonin reuptake inhibitor, for eight weeks to determine the extent of therapeutic response. Subjects who do not respond well based on predefined criteria are randomized into the double blind second phase of the trial and receive either TC-5214 or placebo, together with continued citalopram therapy, for an additional eight weeks. It is expected that approximately 560 subjects will participate in the first phase of the trial and approximately 220 subjects will be randomized into the second phase of the trial. The primary endpoint of the trial is change from baseline during the second phase of the trial as measured by the Hamilton Depression Rating Scale. The trial also includes a variety of secondary safety and efficacy measures. The trial is planned to be conducted at two sites in the United States and approximately 20 sites in India.

Revenue

As of June 30, 2008, we had received $32.2 million in aggregate upfront fees and milestone payments and had recognized $17.2 million in collaboration research and development revenue for preclinical research services under our collaboration agreement with AstraZeneca. In addition, as of June 30, 2008, we had received $41.5 million in aggregate payments under our alliance agreement with GlaxoSmithKline.

We acquired rights to Inversine®, which is our only product approved by the U.S. Food and

Drug Administration, or FDA, for marketing, in August 2002. Inversine is approved for the management of moderately severe to severe essential hypertension and in uncomplicated cases of malignant hypertension, which are high blood pressure disorders. However, we believe that Inversine is prescribed predominantly for the treatment of neuropsychiatric disorders, such as Tourette's syndrome, autism and bipolar disorder. Sales of Inversine generated net revenue of $199,000 and $204,000 for the three months ended June 30, 2008 and 2007, respectively, and $387,000 and $345,000 for the six months ended June 30, 2008 and 2007, respectively. At the beginning of 2008, we instituted a 62% price increase for Inversine to help offset the impact of increased cost of product sales resulting from FDA product and establishment fees and have experienced decreased sales volume in both the three and six months ended June 30, 2008. We do not anticipate any significant increase in the volume of Inversine sales. We do not have or use a sales force or promote Inversine.

From time to time we seek and are awarded grants or work to be performed under grants awarded to third-party collaborators from which we derive revenue. As of June 30, 2008, we are a named subcontractor under a grant awarded to The California Institute of Technology by the National Institute on Drug Abuse, or NIDA, part of the National Institutes of Health, to fund research on innovative NNR-based approaches to the development of therapies for smoking cessation. We expect to receive approximately $1.1 million in the aggregate over a five-year period that began in July 2006 in connection with the NIDA grant. Funding for awards under federal grant programs is subject to the availability of funds as determined annually in the federal appropriations process.

A substantial portion of our revenue depends on the conduct of research and the successful achievement of milestone events in the development of AZD3480 (TC-1734) under our agreement with AstraZeneca, whether AstraZeneca elects to license TC-5619 following our completion of Phase 1 clinical development and a Phase 2 clinical proof of concept trial, and on the successful achievement of milestone events under our agreement with GlaxoSmithKline in the development of TC-6499 and in the five therapeutic focus areas of our alliance. Our revenue may vary substantially from quarter to quarter and year to year.

Research and Development Expenses

Since our inception, we have focused our activities on our drug discovery and development programs. We record research and development expenses as they are incurred. Research and development expenses represented approximately 84% and 76% of our total operating expenses for the three months ended June 30, 2008 and 2007, respectively, and 83% and 78% of our total operating expenses for the six months ended June 30, 2008 and 2007, respectively.

Under the terms of our collaboration agreement, AstraZeneca is responsible for substantially all development costs for AZD3480 (TC-1734), except for costs associated with the conduct of the ongoing Phase 2 clinical trial of AZD3480 (TC-1734) in adults with ADHD. The following table shows, for the periods presented, total amounts that we incurred for third-party services in connection with preclinical studies, pharmaceutical development, clinical supplies and clinical trials, as applicable for our most advanced product candidates:

Product Candidate	Three months ended June 30, 2008	Three months ended June 30, 2007	Six months ended June 30, 2008	Six months ended June 30, 2007
	(in thousands)		(in thousands)	
AZD3480 (TC-1734)	$ 133	$ —	$ 135	$ —
TC-5619	614	719	1,636	1,084
TC-5214	1,106	1,377	1,870	1,649
TC-6499	454	606	833	626
TC-2216	198	323	519	477
	$ 2,505	$ 3,025	$4,993	$3,836

In December 2007, we announced that TC-2696, a product candidate for acute post-operative pain, did not meet the primary endpoints in a Phase 2 clinical trial in third molar extraction patients. We have no current plans to conduct further clinical development of TC-2696. We incurred expenses for third-party services in connection with the development of TC-2696 of $346,000 and $552,000 for the three and six months ended June 30, 2007. Third-party expenses in connection with the development of TC-2696 were de minimis for the comparable 2008 periods.

The third-party research and development services for TC-2216 for the 2008 periods included costs with respect to our completed Phase 1 single rising dose clinical trial of TC-2216, as well as non-clinical studies conducted to characterize TC-2216 and its constituent enantiomers further. We may in the future elect to develop one of the enantiomers of TC-2216 in lieu of further development of TC-2216. However, based on our development of TC-5214 and our current budget management plans, we do not expect that we will conduct further clinical development of TC-2216 or either of its enantiomers in 2008.

We utilize our research and development personnel and infrastructure resources across several programs. We currently have clinical, preclinical and early research programs, and many of our costs are not specifically attributable to a single program. Instead, these costs are directed to broadly applicable research efforts. Accordingly, we cannot state precisely our total costs incurred on a program-by-program basis.

We have not received FDA or foreign regulatory marketing approval for any of our product candidates that are in development. Our current and future expenditures on preclinical and clinical development programs are subject to numerous uncertainties in timing and cost to completion**.** In particular, our strategy includes entering into alliances and collaborations with third parties to participate in the development and commercialization of some of our product candidates. Where a third party has responsibility for or authority over preclinical or clinical development of a particular product candidate, the estimated completion date is largely under control of that third party and not under our control. We cannot forecast with any degree of certainty which of our product candidates will be subject to future alliances or collaborations or how such arrangements would affect our development plans or capital requirements. Because of these uncertainties, and because of the numerous uncertainties related to clinical trials and related activities, we are unable to determine the duration and completion costs of our research and development programs or whether or when we will generate revenue from the commercialization and sale of any of our product candidates in development.

General and Administrative Expenses

General and administrative expenses consist principally of salaries and other related costs for personnel in executive, finance, accounting, business development and human resource functions. Other general and administrative expenses include expenses associated with stock options and other stock-based compensation granted to personnel in those functions, facility costs not otherwise included in research and development expenses, patent related costs, insurance costs and professional fees for consulting, legal, accounting and public and investor relations services.

Income Taxes

We generated net income for the three-month period and year ended December 31, 2006 due primarily to the recognition of milestone-based revenue derived under our agreement with AstraZeneca. We incurred net operating losses for each other period since inception and consequently have not paid federal, state or foreign income taxes in any period. As of June 30, 2008, we had net operating loss carryforwards of $112.5 million for each of federal and state income tax purposes. We also had $3.1 million in research and development federal income tax credits as of June 30, 2008. The federal net operating loss carryforwards begin to expire in 2020. The state net operating loss carryforwards begin to expire in 2015. The research and development tax credits begin to expire in 2021. Utilization of the net operating loss carryforwards and credits may be subject to a substantial annual limitation due to ownership change limitations provided by Section 382 of the Internal Revenue Code of 1986, as amended, and similar state provisions. When an ownership change, as defined by Section 382, occurs, an annual limitation is imposed on a company's use of net operating loss and credit carryforwards attributable to periods before the change. As a result of a series of stock issuances, we had such an ownership change in November 2002. Consequently, an annual limitation is imposed on our use of net operating loss and credit carryforwards that are attributable to periods before the change, and a portion of the net operating loss carryforwards described above may potentially not be usable by us. We could experience additional ownership changes in the future. For financial reporting purposes, we have recorded a valuation allowance to fully offset the deferred tax asset related to these carryforwards because realization of the benefit is uncertain.

Critical Accounting Policies and Estimates

Our management's discussion and analysis of our financial condition and results of operations are based on our unaudited financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses. On an ongoing basis, we evaluate these estimates and judgments. We base our estimates on historical experience and on various assumptions that we believe to be reasonable under the circumstances. These estimates and assumptions form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results and experiences may differ materially from these estimates. In addition, our reported financial condition and results of operations could vary if new accounting standards are enacted that are applicable to our business.

Our significant accounting policies are described in Note 2 to our audited financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2007 and in the notes to our financial statements included in this quarterly report. We believe that our

accounting policies relating to revenue recognition, accrued expenses, fair value accounting and stock-based compensation are the most critical to understanding and evaluating our reported financial results. We have identified these policies as critical because they are important to the presentation of our financial condition and results of operations and require us to make judgments and estimates on matters that are inherently uncertain and may change in future periods. The policies relating to revenue recognition, accrued expenses and stock-based compensation are described under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operations – Critical Accounting Policies and Estimates" in our Annual Report on Form 10-K for the year ended December 31, 2007. The policy for fair value accounting is described below.

Fair Value Accounting

Effective January 1, 2008, we adopted Statement of Financial Accounting Standard, or SFAS, No. 157, *Fair Value Measurements*, or SFAS 157. SFAS 157 defines fair value, provides a consistent framework for measuring fair value under GAAP and expands fair value financial statement disclosure requirements. The valuation techniques of SFAS 157 are based on both observable and unobservable inputs. Observable inputs reflect readily obtainable data from independent sources, and unobservable inputs reflect our market assumptions. SFAS 157 classifies these inputs into the following hierarchy:

Level 1 Inputs– Quoted prices for identical instruments in active markets.

Level 2 Inputs– Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and valuations whose inputs are observable or whose significant value drivers are observable.

Level 3 Inputs– Instruments with primarily unobservable value drivers.

As of June 30, 2008, we had $15.4 million invested in student loan auction rate securities, or ARS. Student loan ARS are variable rate debt instruments that have a contractual maturity of approximately 20 to 40 years. These investments are intended to provide liquidity via an auction process that resets the applicable interest rate at predetermined calendar intervals, enabling investors to either roll over their holdings or gain immediate liquidity by selling them at par value. Auctions for the student loan ARS owned by us are scheduled at 28-day intervals.

Prior to the first quarter of 2008, our history with the student loan ARS market had been that these investments could be redeemed at any of the regularly scheduled 28-day auctions and we believed that the risk that these investments could not be redeemed within a year was minimal. Accordingly, we have historically viewed student loan ARS as available for use in current operations and classified them as short-term investments, even though their stated maturity dates may be more than one year beyond the balance sheet date. As of January 1, 2008, we recorded our student loan ARS at par based on Level 1 inputs, as there were observable quoted prices from an active market at that date.

During 2008, we continued to own student loan ARS. The uncertainties experienced in the credit markets in 2008 affected the student loan ARS market, and, beginning in February 2008, auctions for our student loan ARS failed to settle on their respective settlement dates.

Based on the uncertainty of the short-term liquidity of the student loan ARS that existed as of March 31, 2008, we did not classify our investments in student loan ARS as of that date as short-term investments. We estimated the fair values of our student loan ARS using discounted cash flow models. These models considered, among other things, the expected timing for successful auctions or refinancings in the future, the composition and quality of the underlying collateral and the creditworthiness of the issuer. Because these inputs are not observable, they are classified as Level 3 inputs under SFAS 157. Based on these models, we estimated the fair value of our student loan ARS owned as of March 31, 2008 to be $16.5 million, which reflected a fair value adjustment of $297,000 that was considered a temporary adjustment, and recorded a corresponding unrealized loss in an amount equal to the fair value adjustment in accumulated other comprehensive income, a component of stockholders' equity.

In June 2008, $1.4 million of $16.8 million total par value of our student loan ARS was redeemed by the issuers of the underlying securities. Based on the June 2008 redemption and expected future redemptions, we determined the carrying value of our student loan ARS as of June 30, 2008 based on Level 1 inputs, reversed the fair value adjustment that had decreased the carrying value of our student loan ARS by $297,000 as of March 31, 2008 and recorded our remaining student loan ARS as of June 30, 2008 as short-term investments at their par value of $15.4 million. The full par value of our remaining student loan ARS was subsequently redeemed by the issuers of the underlying securities in July 2008.

Results of Operations

Three Months ended June 30, 2008 and 2007

Net Operating Revenues

Net operating revenues increased by $2.4 million to $5.2 million for the three months ended June 30, 2008, from $2.8 million for the comparable three-month period in 2007. The higher net operating revenues were principally attributable to an increase of $1.8 million in milestones and license fee revenue from AstraZeneca and GlaxoSmithKline to $2.3 million for the 2008 period, from $563,000 for the 2007 period, and to an increase of $561,000 in collaboration research and development revenue to $2.6 million for the 2008 period, from $2.1 million for the 2007 period. The increase in milestones and license fee revenue for the 2008 period reflects the achievement of milestone events related to progress in our smoking cessation program under our agreement with GlaxoSmithKline and to the development of a product candidate in the preclinical research collaboration under our agreement with AstraZeneca, which resulted in an aggregate of $700,000 in payments to us, as well as the recognition of $1.1 million of deferred license fee revenue from payments received from GlaxoSmithKline and AstraZeneca in the second half of 2007. The increase in collaboration research and development revenue for the 2008 period was due to additional services rendered by us in our preclinical research collaboration with AstraZeneca as product candidates in the collaboration progressed into more advanced stages of research.

Research and Development Expenses

Research and development expenses increased by $1.4 million to $10.5 million for the three months ended June 30, 2008, from $9.1 million for the comparable three-month period in 2007. The higher research and development expenses were principally attributable to an increase of $1.3 million in salary and benefit expenses, occupancy costs and supply and infrastructure costs resulting from an

increased number of research and development personnel primarily to execute the preclinical research collaboration with AstraZeneca and preclinical programs in the therapeutic focus areas of the alliance with GlaxoSmithKline to $6.5 million for the 2008 period, from $5.2 million for the 2007 period, as well as an increase of $905,000 in costs for third-party preclinical research and development services incurred primarily in connection with our research collaboration with AstraZeneca and programs in the therapeutic focus areas of our alliance with GlaxoSmithKline to $1.4 million for the 2008 period, from $533,000 for the 2007 period. These increases were partially offset by an aggregate decrease of $520,000 in costs for third-party research and development services incurred in connection with our clinical-stage product candidates, primarily due to the timing of initiation and completion of clinical trials, to $2.5 million for the 2008 period, from $3.0 million for the 2007 period, and reduced spending of $291,000 on TC-2696.

We anticipate our research and development expenses for the remainder of 2008 will be higher than our research and development expenses both for the corresponding 2007 periods and for the first half of 2008 as a result of expected expenses associated with our ongoing Phase 2b clinical trial of TC-5214, our ongoing Phase 2 clinical trial of AZD3480 (TC-1734) in adults with ADHD, our planned Phase 1 clinical trials of TC-5619 and TC-6499, and increased activity in connection with our preclinical programs, including those in the therapeutic focus areas of our alliance with GlaxoSmithKline.

General and Administrative Expenses

General and administrative expenses decreased by $735,000 to $1.9 million for the three-month period ended June 30, 2008, from $2.6 million for the comparable three-month period in 2007. The decrease was primarily attributable to a decrease in stock-based compensation, a non-cash item, resulting from compensatory stock option grants of $1.2 million, partially offset by greater occupancy costs, salary and benefit expenses and recruitment costs associated with an increase in our number of employees for the 2008 period as compared to the 2007 period.

Interest Income

Interest income decreased by $137,000 to $700,000 for the three months ended June 30, 2008, from $837,000 for the comparable three-month period in 2007. The decrease was primarily attributable to lower short-term interest rates, partially offset by a higher average cash and investment balance during the 2008 period.

Interest Expense

Interest expense increased by $40,000 to $69,000 for the three months ended June 30, 2008, from $29,000 for the comparable three-month period in 2007. The higher interest expense was attributable to increased indebtedness under our loan facilities used to finance laboratory equipment, furniture and other capital equipment purchases. In particular, we borrowed $4.8 million in March 2008 pursuant to a loan agreement that we entered into with a bank. We used $1.7 million of the proceeds of our March 2008 borrowings to repay a portion of our existing loan facility, resulting in a net increase in indebtedness under our loan facilities of $3.1 million. As a result of the increased indebtedness, we anticipate that our interest expense for future 2008 periods will exceed our interest expense for the comparable 2007 periods.

Six Months ended June 30, 2008 and 2007

Net Operating Revenues

Net operating revenues increased by $4.5 million to $9.4 million for the six months ended June 30, 2008, from $4.9 million for the comparable six-month period in 2007. The higher net operating revenues were principally attributable to an increase of $2.8 million in milestones and license fee revenue from AstraZeneca and GlaxoSmithKline to $3.9 million for the 2008 period, from $1.1 million for the 2007 period, and to an increase of $1.7 million in collaboration research and development revenue to $4.9 million for the 2008 period, from $3.2 million for the 2007 period. In addition to the achievement of milestone events under our agreements with GlaxoSmithKline and AstraZeneca as described above, the increase in milestones and license fee revenue for the 2008 period reflects the recognition of $2.1 million of deferred license fee revenue from payments received from GlaxoSmithKline and AstraZeneca in the second half of 2007. The increase in collaboration research and development revenue for the 2008 period was due to additional services rendered by us in the preclinical research collaboration with AstraZeneca as product candidates in the collaboration progressed into more advanced stages of research.

Research and Development Expenses

Research and development expenses increased by $4.3 million to $19.6 million for the six months ended June 30, 2008, from $15.3 million for the comparable six-month period in 2007. The higher research and development expenses were principally attributable to an increase of $2.8 million in salary and benefit expenses, occupancy costs and supply and infrastructure costs resulting from an increased number of research and development personnel primarily to execute the preclinical collaboration with AstraZeneca and preclinical programs in the therapeutic focus areas of the alliance with GlaxoSmithKline to $12.6 million for the 2008 period, from $9.8 million for the 2007 period, an aggregate increase of $1.2 million for third-party research and development services incurred in connection with our clinical-stage product candidates to $5.0 million for the 2008 period, from $3.8 million for the 2007 period, and an increase of $926,000 in costs for third-party preclinical research and development services incurred primarily in connection with our research collaboration with AstraZeneca and programs in the therapeutic focus areas of the alliance with GlaxoSmithKline to $2.0 million for the 2008 period, from $1.1 million for the 2007 period. The increased costs for third-party research and development services for the six-month period in 2008 were partially offset by reduced spending of $546,000 on TC-2696.

General and Administrative Expenses

General and administrative expenses decreased by $382,000 to $3.6 million for the six months ended June 30, 2008, from $4.0 million for the comparable six-month period in 2007. The decrease was primarily attributable to a decrease in stock-based compensation, a non-cash item, resulting from compensatory stock option grants of $1.0 million, partially offset by greater occupancy costs, salary and benefit expenses and recruitment costs associated with an increase in our number of employees for the 2008 period as compared to the 2007 period.

Interest Income

Interest income decreased by $32,000 for the six months ended June 30, 2008, as compared to the comparable six-month period in 2007. The decrease was primarily attributable to lower short- term interest rates, partially offset by a higher average cash and investment balance during the 2008 period.

Interest Expense

Interest expense increased by $77,000 to $120,000 for the six months ended June 30, 2008, from $43,000 for the comparable six-month period in 2007. The higher interest expense was attributable to increased indebtedness under our loan facilities used to finance laboratory equipment, furniture and other capital equipment purchases, as well as the expiration in April 2007 of the grace period for interest under a loan received from the City of Winston-Salem in 2002.

Liquidity and Capital Resources

Sources of Liquidity

From August 2000 when we became an independent company until completion of our initial public offering in April 2006, we financed our operations and internal growth primarily through private placements of convertible preferred stock. We derived aggregate net proceeds of $121.8 million from these private placements. In April 2006, we completed an initial public offering of our common stock, consisting of 5.0 million shares at a price of $9.00 per share. After deducting underwriting discounts and commissions and offering expenses payable by us, our net proceeds from the offering were $40.8 million. In January 2008, we completed a second public offering of our common stock, consisting of 4.4 million shares at a price of $7.07 per share, the closing bid price of our common stock on the date that the offering was priced. After deducting underwriting discounts and commissions and offering expenses payable by us, our net proceeds from the offering were $29.1 million. We have also received funding from: upfront fees; payments for research and development services and payments upon achievement of milestone events under collaboration and alliance agreements; equipment and building lease incentive financing; government grants; and interest income. We began generating revenue from product sales of Inversine in December 2002. To date, the net contribution from Inversine sales has not been a significant source of cash and we do not expect it to be a significant source in the future.

In July 2007, we entered into a product development and commercialization agreement and a related stock purchase agreement with GlaxoSmithKline. In May 2008, we received a $500,000 payment from GlaxoSmithKline upon achievement of a milestone event under our alliance agreement related to progress in our smoking cessation program. As of June 30, 2008, we had received $41.5 million in aggregate payments under our alliance agreement with GlaxoSmithKline.

In December 2005, we entered into a collaborative research and license agreement with AstraZeneca. In May 2008, we received a $200,000 payment from AstraZeneca upon achievement of a milestone event related to the development of a product candidate in our preclinical research collaboration. As of June 30, 2008, we have received $32.2 million in aggregate upfront fees and milestone payments and $17.2 million in aggregate research fees under our collaboration agreement with AstraZeneca.

In March 2008, we entered into a loan agreement with a bank pursuant to which we borrowed $4.8 million to fund the purchase of equipment, furnishings, software and other fixed assets and to pay and satisfy in full the principal and interest outstanding on two of the tranches under our loan facility with R.J. Reynolds Tobacco Holdings, Inc., or RJRT. The March 2008 borrowing bears

interest at a rate of 5.231% per annum and is repayable in equal monthly installments of $112,000 beginning April 1, 2008 and through the maturity date of March 1, 2012. Pursuant to the agreement, the bank has a first priority security interest in the assets acquired with the proceeds of the loan facility. As of June 30, 2008, the outstanding principal balance under the loan facility was $4.5 million and there was $489,000 of additional borrowing capacity available to us at any time prior to October 1, 2008.

We have a loan facility with RJRT that we entered into originally in May 2002 and that has been subsequently amended. All borrowings under the facility are secured by specified tangible fixed assets determined sufficient by RJRT at the time of disbursement. The tranche that remains outstanding under the loan facility bears interest at an annual interest rate of 6.89% and is payable in monthly installments of $23,000. As of June 30, 2008, the outstanding principal balance under the loan facility was $159,000 and there is no additional borrowing capacity available to us.

In April 2002, we received a $500,000 loan from the City of Winston-Salem. Under the terms of the loan, there was no interest accrual or payment due until the fifth anniversary. Following expiration of the five-year grace period in April 2007, the outstanding principal balance of the loan bears interest at an annual interest rate of 5% and is payable in 60 equal monthly installments of $9,000. As of June 30, 2008, the outstanding principal balance under the loan was $384,000.

Our cash, cash equivalents and short-term investments were $101.9 million as of June 30, 2008. Our cash, cash equivalents and short-term investments were $87.0 million as of December 31, 2007.

Cash Flows

Net cash used in operating activities was $15.1 million for the six months ended June 30, 2008, as compared to net cash provided by operating activities of $8.1 million for the comparable six-month period in 2007, a difference of $23.2 million. The difference was primarily due to a reduction of $21.1 million in our collaboration revenue and accounts receivable balance for the 2007 period as a result of our receipt of a $20.0 million milestone payment from AstraZeneca in January 2007 upon achievement of a milestone event related to AZD3480 (TC-1734). Our collaboration revenue and accounts receivable balance for the 2008 period decreased by $1.4 million. The difference also reflected a decrease in net loss of $472,000 to $12.6 million for the 2008 period, from $13.1 million for the 2007 period, decreased stock-based compensation expense of $906,000 to $1.0 million for the 2008 period, from $1.9 million for the 2007 period, and increased recognition of deferred license fee revenue of $2.1 million to $3.2 million for the 2008 period, from $1.1 million for the 2007 period. The increased recognition of deferred license fee revenue is attributable to the recognition of $1.3 million of the $20.0 million initial payment and aggregate deemed premium of $3.5 million resulting from GlaxoSmithKline's purchase of 1,275,502 shares of our common stock in connection with the formation of our alliance in July 2007, the recognition of $346,000 of the $6.0 million payment from GlaxoSmithKline upon our initiation of a Phase 1 clinical trial of TC-6499 in December 2007 and the recognition of $462,000 of the $2.0 million payment in November 2007 from AstraZeneca to secure the future right to license TC-5619.

Net cash used in investing activities decreased by $3.4 million to $5.6 million for the six months ended June 30, 2008, from $9.0 million for the comparable six-month period in 2007. Cash used in investing activities primarily reflects the portion of our cash that we allocate to, and the timing of purchases and maturities of, our investments. Additionally, our property and equipment

purchases increased by $700,000 to $1.8 million for the 2008 period, from $1.1 million for the 2007 period. The increased purchases were primarily for equipment to support our research and development operations.

Net cash provided by financing activities was $31.7 million for the six months ended June 30, 2008, as compared to $1.8 million for the comparable six-month period in 2007, a difference of $29.9 million. The difference was principally attributable to our receipt of $29.1 million in net proceeds from a public stock offering that we completed in January 2008 and incremental net borrowings of $754,000 under our loan facilities.

Funding Requirements

As of June 30, 2008, we had an accumulated deficit of $176.8 million. We expect to incur substantial operating losses for the foreseeable future. Our future capital requirements are difficult to forecast and will depend on many factors, including:

- the results of the ongoing Phase 2b clinical trials of AZD3480 (TC-1734) in mild to moderate Alzheimer's disease and cognitive dysfunction in schizophrenia being conducted by AstraZeneca and the decision by AstraZeneca with regard to the advancement of AZD3480 (TC-1734) into Phase 3 clinical trials;
- the scope, progress, duration, results and cost of clinical trials, as well as non-clinical studies and assessments, of our product candidates in addition to AZD3480 (TC-1734);
- the timing, receipt and amount of milestone and other payments from AstraZeneca, GlaxoSmithKline and potential future collaborators;
- the extent to which our research and development activities in the programs that are the therapeutic focus areas of our alliance with GlaxoSmithKline result in the achievement of milestone events under our alliance agreement;
- the duration of our preclinical research collaboration with AstraZeneca;
- whether we retain development and commercialization rights for our product candidates that are not subject to our collaboration with AstraZeneca or our alliance with GlaxoSmithKline and incur associated development and manufacturing costs and costs to establish sales and marketing functions;
- the costs, timing and outcomes of regulatory reviews;
- the number and characteristics of product candidates that we pursue;
- the costs of preparing, filing and prosecuting patent applications and maintaining, enforcing and defending intellectual property-related claims;
- the costs for manufacturing-related services for our product candidates in clinical development;

- the rate of technological advancements for the indications that we target;
- our ability to establish strategic alliances, collaborations and licensing or other arrangements on terms favorable to us;
- the costs to satisfy our obligations under existing and potential future alliances and collaborations;
- the timing, receipt and amount of sales or royalties, if any, from our potential products; and
- the extent and scope of our general and administrative expenses.

We anticipate that implementing our strategy will require substantial increases in our capital expenditures and other capital commitments as we expand our clinical trial activity, as our clinical-stage and preclinical product candidates advance through the development cycle, as we progress our programs in the therapeutic focus areas of our alliance with GlaxoSmithKline and our preclinical research collaboration with AstraZeneca and as we invest in additional product opportunities and research programs and expand our research and development infrastructure. We do not expect our existing capital resources to be sufficient to enable us to fund the completion of the development of any of our product candidates. We currently expect our existing capital resources to be sufficient to fund our operations at least through the first half of 2010. However, our operating plan may change as a result of many factors, including those described above. We may need additional funds sooner than planned to meet operational needs and capital requirements for product development.

We do not expect to generate sufficient cash from our operations to sustain our business for the foreseeable future. We expect our continuing operating losses to result in increases in our cash required to fund operations over the next several quarters and years. To the extent our capital resources are insufficient to meet future capital requirements, we will need to finance future cash needs through public or private equity offerings, debt financings, alliances, collaborations, or licensing arrangements. Additional equity or debt financing, alliances, collaborations, or licensing arrangements may not be available on acceptable terms, if at all. If adequate funds are not available, we may be required to delay, reduce the scope of or eliminate our research and development programs or obtain funds through arrangements with collaborators or others that may require us to relinquish rights to certain product candidates that we might otherwise seek to develop or commercialize independently. Additionally, any future equity funding may dilute the ownership of our stockholders.

We cannot estimate the completion dates and costs of our current internal research and development programs due to inherent uncertainties in outcomes of clinical trials and regulatory approvals of our product candidates. We cannot be certain that we will be able to successfully complete our research and development projects or successfully establish strategic alliances or collaborations for our product candidates. Our failure to complete our research and development projects could have a material adverse effect on our financial position or results of operations.

We have historically held a portion of our investment portfolio in AAA rated and government-guaranteed student loan ARS. The uncertainties experienced in the capital markets led to failed auctions beginning in February 2008. As of March 31, 2008, we owned $16.8 million of student loan ARS for which auctions failed. As a result, we could not readily convert our

investments in student loan ARS into cash. In June 2008, $1.4 million of $16.8 million total par value of our student loan ARS was redeemed by the issuers of the underlying securities. The full par value of the remaining student loan ARS was subsequently redeemed by the issuers of the underlying securities in July 2008.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

The primary objective of our investment activities is to preserve our capital to fund operations. We also seek to maximize income from our investments without assuming significant risk. To achieve our objectives, we maintain a portfolio of cash equivalents and investments in a variety of securities of high credit quality. Our investments are typically short term. As of June 30, 2008, we had cash, cash equivalents and short-term investments of $101.9 million. A portion of our investments may be subject to interest rate risk and could fall in value if market interest rates increase. However, because our investments are short term in duration, we believe that our exposure to interest rate risk is not significant and estimate that an immediate and uniform 10% increase in market interest rates from levels as of June 30, 2008 would not have a material impact on the total fair value of our portfolio.

We contract for the conduct of some of our clinical trials and other research and development and manufacturing activities with contract research organizations, investigational sites and manufacturers in Europe and in India. We may be subject to exposure to fluctuations in foreign currency exchange rates in connection with these agreements. If the average Euro/U.S. dollar exchange rate or the average Indian Rupee/U.S. dollar exchange rate were to strengthen or weaken by 10% against the exchange rate as of June 30, 2008, we estimate that the impact on our financial position, results of operations and cash flows would not be material. We do not hedge our foreign currency exposures.

We have not used derivative financial instruments for speculation or trading purposes.

Item 4. Controls and Procedures

(a) *Evaluation of Disclosure Controls and Procedures*. Our management, with the participation of our chief executive officer and chief financial officer, evaluated the effectiveness of our disclosure controls and procedures in accordance with Rule 13a-15 under the Exchange Act as of the end of the period covered by this quarterly report. In designing and evaluating our disclosure controls and procedures, our management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and our management necessarily applied its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of the end of the period covered by this quarterly report, our chief executive officer and chief financial officer concluded that, as of such date, our disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is (a) accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate to allow timely decisions regarding required disclosure and (b) recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms.

(b) *Changes in Internal Controls*. No change in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) occurred during the quarter ended June 30, 2008 that materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 4. Submission of Matters to a Vote of Security Holders

The following matters were submitted to a vote of our stockholders at our 2008 Annual Meeting of Stockholders held on June 25, 2008 and approved by the requisite vote of our stockholders as follows:

1. Election of M. James Barrett, Ph.D., Julia R. Brown, J. Donald deBethizy, Ph.D. and John P. Richard to our board of directors as Class II directors to serve for a term to expire at the 2011 annual meeting of stockholders, with each director to hold office until his or her successor is duly elected and qualified or until his or her death, retirement, resignation or removal.

	Number of Shares	
Nominee	For	Withheld
M. James Barrett, Ph.D.	22,386,441	4,239
Julia R. Brown	22,378,814	11,866
J. Donald deBethizy, Ph.D.	22,380,705	9,975
John P. Richard	22,386,441	4,239

2. Ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2008.

Number of Shares		
For	Against	Abstain
22,384,908	300	5,472

There were 24,899,962 shares of our common stock eligible to be voted at the meeting as of the record date of April 28, 2008.

Item 6. Exhibits

The exhibits listed in the accompanying exhibit index are filed as part of this quarterly report.

Our trademarks include Targacept®, Inversine®, Pentad™, NNR Therapeutics™, TRIDMAC™ and AMPLIXA™. Other service marks, trademarks and trade names appearing in this quarterly report are the property of their respective owners.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

TARGACEPT, INC.

Date: August 7, 2008

/s/ J. Donald deBethizy

J. Donald deBethizy
President and Chief Executive Officer
(Principal Executive Officer)

Date: August 7, 2008

/s/ Alan A. Musso

Alan A. Musso
Vice President, Chief Financial Officer and Treasurer
(Principal Financial and Accounting Officer)

EXHIBIT INDEX

Exhibit Number	Description
31.1	Certification of the Chief Executive Officer pursuant to Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of the Chief Financial Officer pursuant to Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of the Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

EXHIBIT 31.1

CERTIFICATION

I, J. Donald deBethizy, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Targacept, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 7, 2008

/s/ J. Donald deBethizy

J. Donald deBethizy
President and Chief Executive Officer

EXHIBIT 31.2

CERTIFICATION

I, Alan A. Musso, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Targacept, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 7, 2008

/s/ Alan A. Musso

Alan A. Musso
Vice President, Chief Financial Officer and Treasurer

EXHIBIT 32.1

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of Targacept, Inc. (the "Company") for the period ended June 30, 2008 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, J. Donald deBethizy, President and Chief Executive Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 7, 2008

/s/ J. Donald deBethizy

J. Donald deBethizy
President and Chief Executive Officer

EXHIBIT 32.2

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of Targacept, Inc. (the "Company") for the period ended June 30, 2008 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Alan A. Musso, Vice President, Chief Financial Officer and Treasurer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 7, 2008

/s/ Alan A. Musso
Alan A. Musso
Vice President, Chief Financial Officer and Treasurer