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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 March 31, 2009

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 has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). **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 April 30, 2009, the registrant had 24,965,173 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, which we refer to as the Securities Act, 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, other than statements of historical fact, regarding the timing for a decision by AstraZeneca whether to conduct further development of AZD3480 (TC-1734) in Alzheimer's disease or attention deficit/hyperactivity disorder, or ADHD, the progress or scope of the research and development of our product candidates, such as the number of subjects to be enrolled in any clinical trial, the timing for initiation or completion of or availability of results from any clinical trial or the indication for which any of our product candidates may be developed, the benefits of our product candidates, the period of our preclinical research collaboration with AstraZeneca, any future payments that AstraZeneca or GlaxoSmithKline may make to us, our continued sale of Inversine®, our future operations, financial position, revenues, costs or expenses, or our strategies, prospects, plans, expectations or objectives 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," "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 significant control that AstraZeneca has over the development of AZD3480, including as to whether to conduct any further development of AZD3480 in Alzheimer's disease or ADHD; difficulties or delays in analysis of data from the clinical trial of AZD3480 in ADHD in adults; the conduct and results of clinical trials and non-clinical studies and assessments of TC-5214 and our other product candidates, including the performance of third parties engaged to execute such trials, studies and assessments, delays resulting from any changes to the applicable protocols and difficulties or delays in the completion of subject enrollment or data analysis; our ability to establish additional strategic alliances, collaborations and licensing or other arrangements on favorable terms; and the timing and success of submission, acceptance and approval of regulatory filings. These and other risks and uncertainties are described in greater 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, 2008 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.

In addition, any forward-looking statement in this quarterly report represents 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.

Item 1. Financial Statements

TARGACEPT, INC.

BALANCE SHEETS
(in thousands, except par value amounts)

	March 31, 2009 (unaudited)	December 31, 2008
ASSETS		
Current assets:		
Cash and cash equivalents	$ 43,005	$ 51,202
Short-term investments	37,233	37,161
Collaboration revenue and accounts receivable	3,650	2,073
Inventories	88	100
Prepaid expenses	1,206	1,430
Total current assets	85,182	91,966
Property and equipment, net	6,008	6,401
Intangible assets, net of accumulated amortization of $116 and $112 at March 31, 2009 and December 31, 2008, respectively	180	184
Total assets	$ 91,370	$ 98,551
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 1,106	$ 1,500
Accrued expenses	3,645	4,381
Current portion of long-term debt	1,385	1,390
Current portion of deferred rent incentive	42	42
Current portion of deferred license fee revenue	6,078	6,479
Total current liabilities	12,256	13,792
Long-term debt, net of current portion	3,054	3,408
Deferred rent incentive, net of current portion	98	109
Deferred license fee revenue, net of current portion	22,650	23,869
Total liabilities	38,058	41,178
Commitments and contingencies		
Stockholders' equity:		
Common stock, $0.001 par value, 100,000 shares authorized; 24,965 and 24,964 shares issued and outstanding at March 31, 2009 and December 31, 2008, respectively	25	25
Capital in excess of par value	247,860	247,244
Accumulated deficit	(194,573)	(189,896)
Total stockholders' equity	53,312	57,373
Total liabilities and stockholders' equity	$ 91,370	$ 98,551

See accompanying notes.

TARGACEPT, INC.

STATEMENTS OF OPERATIONS
(in thousands, except per share amounts)
(unaudited)

	Three Months Ended March 31,	
	2009	2008
Operating revenues:		
Collaboration research and development	$ 1,544	$ 2,258
Milestones and license fees from collaborations	4,120	1,620
Product sales, net	251	188
Grant revenue	226	210
Net operating revenues	6,141	4,276
Operating expenses:		
Research and development (including stock-based compensation of $286 and $263 for the three months ended March 31, 2009 and 2008, respectively)	9,495	9,082
General and administrative (including stock-based compensation of $287 and $240 for the three months ended March 31, 2009 and 2008, respectively)	1,470	1,691
Cost of product sales	228	203
Total operating expenses	11,193	10,976
Loss from operations	(5,052)	(6,700)
Other income (expense):		
Interest income	362	970
Interest expense	(60)	(51)
Total other income (expense)	302	919
Loss before provision for income taxes	(4,750)	(5,781)
Income tax benefit	73	—
Net loss	$ (4,677)	$ (5,781)
Basic and diluted net loss per share	$ (0.19)	$ (0.24)
Weighted average common shares outstanding—basic and diluted	24,965	23,834

See accompanying notes.

TARGACEPT, INC.

STATEMENTS OF CASH FLOWS
(in thousands)
(unaudited)

	Three Months Ended March 31,	
	2009	2008
Operating activities		
Net loss	$ (4,677)	$ (5,781)
Adjustments to reconcile net loss to net cash used in operating activities:		
Recognition of deferred license fee revenue	(1,620)	(1,620)
Depreciation and amortization	490	377
Stock-based compensation expense	573	503
Recognition of deferred rent incentive	(11)	(11)
Changes in operating assets and liabilities:		
Collaboration revenue and accounts receivable	(1,577)	2,396
Inventories	12	11
Prepaid expenses and accrued interest receivable	152	(444)
Accounts payable and accrued expenses	(1,130)	(2,148)
Net cash used in operating activities	(7,788)	(6,717)
Investing activities		
Purchase of investments	(4,000)	(54,762)
Proceeds from sale of investments	4,000	43,000
Purchase of property and equipment	(93)	(1,532)
Net cash used in investing activities	(93)	(13,294)
Financing activities		
Proceeds from issuance of long-term debt	—	4,811
Principal payments on long-term debt	(359)	(1,948)
Proceeds from issuance of common stock	43	29,212
Net cash (used in) provided by financing activities	(316)	32,075
Net (decrease) increase in cash and cash equivalents	(8,197)	12,064
Cash and cash equivalents at beginning of period	51,202	53,403
Cash and cash equivalents at end of period	$43,005	$ 65,467

See accompanying notes

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS
March 31, 2009

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 primarily 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 U.S. generally accepted accounting principles, 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, 2008. In the opinion of the Company's management, all adjustments, consisting of normal recurring adjustments, necessary for a fair presentation of its financial position, operating results and cash flows for the periods presented have been included. Operating results for the three months ended March 31, 2009 and 2008 are not necessarily indicative of the results that may be expected for the full year, for any other interim period or for any future year.

Use of Estimates

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

Fair Value Measurement

Effective January 1, 2008, the Company adopted Statement of Financial Accounting Standard, or SFAS, No. 157, *Fair Value Measurements*, or SFAS 157, for application to financial assets. 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.

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
March 31, 2009

2. Summary of Significant Accounting Policies (continued)

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.

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 for which inputs are observable or for which significant value drivers are observable.

Level 3 Inputs– Primarily unobservable value drivers.

As of March 31, 2009, the Company had $37,233,000 invested in available-for-sale marketable securities, comprised entirely of certificates of deposit and the related accrued interest receivable. The Company determines fair value for certificates of deposit through quoted market prices, or Level 1 inputs. The Company has also previously invested in student loan auction rate securities, or ARS. Prior to January 1, 2008, the Company determined fair value for student loan ARS based on quoted market prices in active markets for identical assets. However, based on failures of student loan ARS to settle at auction during the three months ended March 31, 2008, the Company determined fair value for student loan ARS based on a discounted cash flow model at March 31, 2008. This model 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, and resulted in a fair value adjustment of $297,000. Because these inputs were not observable, they were classified as Level 3 inputs under SFAS 157. All of the Company's previously owned ARS were redeemed by the issuers of the underlying securities at full par value in June and July 2008. The adoption of SFAS No. 157 had no effect on the valuation of the Company's available-for-sale marketable securities as of March 31, 2009.

The Company valued non-financial assets using previously issued Financial Accounting Standards Board, or FASB, standards in accordance with FASB Staff Position No. FAS 157-2, *Effective Date of FASB Statement No. 157*, as of December 31, 2008.

Short-Term Investments

Consistent with the Company's investment policy, cash is invested with prominent financial institutions in bank depository accounts, certificates of deposit, and institutional money market funds. 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 months ended March 31, 2009 and 2008 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.

During the three months ended March 31, 2008, the Company had investments in student loan ARS as discussed above under "Fair Value Measurement." The Company had no investments in student loan ARS during the three months ended March 31, 2009.

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
March 31, 2009

2. Summary of Significant Accounting Policies (continued)

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, which are referred to together as SEC Topic 13, *Revenue Recognition*, or Topic 13.

In determining the accounting for collaboration and alliance 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 an initial payment upon commencement of the contractual relationship, payment representing a common stock purchase premium or payment to secure a right for a future license, are recorded as deferred license fee revenue and recognized into revenue as milestones 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 or, where our collaborator has substantially all research and development responsibility, over the estimated research and development period.

Revenue for non-refundable payments based on the achievement of collaboration milestones is recognized as revenue 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 deferred and recognized into revenue on a straight-line basis over a period determined as described in the preceding paragraph.

Revenues for specific research and development costs that are reimbursable under collaboration agreements are 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 revenues associated with these reimbursable amounts are reflected as a component of collaboration research and development revenue and the costs associated with these reimbursable amounts are reflected as a component of research and development expense.

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
March 31, 2009

2. Summary of Significant Accounting Policies (continued)

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 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.

Because the Company has incurred cumulative operating losses since inception, all tax years remain open to examination by major jurisdictions. The Company is eligible to receive a refundable research and development tax credit provided initially under the Housing Assistance Tax Act of 2008 and extended by the American Recovery and Reinvestment Act of 2009 in lieu of claiming "bonus depreciation," and has recorded a corresponding income tax benefit of $73,000 for the three months ended March 31, 2009.

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.

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
March 31, 2009

2. Summary of Significant Accounting Policies (continued)

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 3,756,428 and 3,103,553 for the three months ended March 31, 2009 and 2008, respectively, calculated on a weighted-average basis, may have been included in the calculation.

Common Stock and Stock-Based Compensation

On January 23, 2008, the Company completed a public offering of 4,370,000 shares of its common stock at a price of $7.07 per share. The Company's net proceeds from the offering, after deducting underwriters' discounts and commissions and offering expenses payable by the Company, were $29,114,000.

During the three months ended March 31, 2009 and the year ended December 31, 2008, the Company issued 800 and 90,954 shares of common stock, respectively, upon the exercise of stock options. On January 9, 2009, the Company granted to employees options to purchase 700,250 shares of common stock with an estimated aggregate fair value using the Black-Scholes-Merton formula of $1,352,000. During the three months ended March 31, 2009, the Company began to record this amount, as adjusted for estimated forfeitures, as stock-based compensation on a straight line basis over an expected period of 16 quarters.

Comprehensive Loss

For the three months ended March 31, 2009, the Company's comprehensive loss equaled its reported net loss. For the three months ended March 31, 2008, the Company's comprehensive loss was $6,078,000, which included a net loss of $5,781,000 and a fair value adjustment to student loan ARS of $297,000, as discussed above under "Fair Value Measurement."

Recent Accounting Pronouncements

In April 2009, the FASB issued FASB Staff Position FAS 107-1 and APB 28-1, *Interim Disclosures about Fair Value of Financial Instruments*, or FSP FAS 107-1 and APB 28-1. FSP FAS 107-1 and APB 28-1 amends FASB Statement No. 107, *Disclosures about Fair Value of Financial Instruments*, to require disclosures about fair value of financial instruments in interim reporting periods as well as in annual financial statements. FSP FAS 107-1 and APB 28-1 also amends Accounting Principles Board Opinion No. 28, *Interim Financial Reporting*, to require fair value of financial instrument disclosures at interim reporting periods. FSP FAS 107-1 and APB 28-1 is effective for periods ending after June 15, 2009. The Company does not expect FSP FAS 107-1 and APB 28-1 to have a material impact on its financial results.

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
March 31, 2009

3. Inventories

As of the respective dates shown, inventories consisted of the following:

	March 31, 2009	December 31, 2008
	(In thousands)	
Raw materials	$ 52	$ 52
Finished goods	36	48
	$ 88	$ 100

In March 2009, the Company notified the U.S. Food and Drug Administration that it will discontinue Inversine effective as of September 30, 2009. It is possible that the Company will record an expense in 2009 related to the impairment or disposal of the remaining Inversine inventory. The amount of the expense, if any, cannot be reasonably estimated as of March 31, 2009 because the Company cannot estimate the volume of product sales of Inversine due to its discontinuation. The Company does not expect any costs that it incurs as a result of the discontinuation of Inversine to have a material impact on its cash flows or results of operations in future periods.

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 specified conditions characterized by cognitive impairment, including Alzheimer's disease, cognitive dysfunction in schizophrenia and attention deficit/hyperactivity disorder. 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 and first detail 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 license grants, until December 2006, when AstraZeneca made a determination to proceed with further development of AZD3480 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 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 had previously deferred as revenue on a straight-line basis over the estimated five-year development period for AZD3480. The Company recognized $563,000 of the initial fee as revenue for each of the three-month periods ended March 31, 2009 and 2008.

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
March 31, 2009

4. Strategic Alliance and Collaboration Agreements (continued)

The Company would 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 requirements for immediate recognition under the Company's revenue recognition policy (see Note 2). AstraZeneca's determination to proceed with further development of AZD3480 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 $197,000,000, contingent upon achievement of development, regulatory, first commercial sale and first detail milestones for AZD3480 for two 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. No fees were paid to UKRF in 2009 or 2008.

The Company is eligible to receive payments from AstraZeneca for research services performed in the parties' preclinical research collaboration. The Company recognizes collaboration research and development revenue as the research is performed and related expenses are incurred. The Company recognized collaboration research and development revenue of $1,544,000 and $2,258,000 for the three months ended March 31, 2009 and 2008, 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 AstraZeneca would have 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 Phase 2 clinical proof of concept. Accordingly, the Company recognized $231,000 of the payment as revenue for each of the three-month periods ended March 31, 2009 and 2008, respectively.

The Company received a $200,000 payment from AstraZeneca in May 2008 and a $2,000,000 payment from AstraZeneca in December 2008. Each payment was made 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 amount of each payment as revenue upon achievement of the corresponding milestone event because the event met each of the conditions required for immediate recognition under the Company's revenue recognition policy (see Note 2).

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
March 31, 2009

4. Strategic Alliance and Collaboration Agreements (continued)

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: smoking cessation, pain, obesity, addiction 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 contingent milestone payments from GlaxoSmithKline as product candidates subject to the alliance advance 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 $3,521,000, 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 deferred recognition of both the initial payment made by GlaxoSmithKline and the deemed premium paid for the shares of the Company's common stock purchased by GlaxoSmithKline and is recognizing them into revenue on a straight-line basis over the estimated term of the Company's research and early development obligations under the agreement. Currently, the Company estimates the term of such obligations to be nine years from effectiveness of the agreement. The Company recognized $653,000 of the initial payment and deemed premium as revenue for each of the three-month periods ended March 31, 2009 and 2008.

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
March 31, 2009

4. Strategic Alliance and Collaboration Agreements (continued)

The Company is also eligible to receive up to approximately $1.1 billion in additional payments from GlaxoSmithKline, contingent upon 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 would 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 Topic 13. 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. Accordingly, 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. The Company recognized $173,000 of the payment as revenue for each of the three-month periods ended March 31, 2009 and 2008.

The Company recorded revenue from GlaxoSmithKline of $1.5 million for the year ended December 31, 2008 and $2.5 million for the three months ended March 31, 2009 for achievement of various milestone events under the agreement. The Company immediately recognized the full amount of each payment as revenue upon achievement of the corresponding milestone event because the event met each of the conditions required for immediate recognition under the Company's revenue recognition policy (see Note 2).

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 the related notes included in this quarterly report and our audited financial statements and Management's Discussion and Analysis of Financial Condition and Results of Operations included in our Annual Report on Form 10-K for the year ended December 31, 2008, 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 any forward-looking statement 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, 2008 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 diseases and disorders primarily of the central nervous system. Our NNR Therapeutics selectively target a class of receptors known as neuronal nicotinic receptors, or NNRs. NNRs are found on nerve cells throughout the nervous system and serve as key regulators of nervous system activity.

We have multiple clinical-stage product candidates and preclinical programs in areas where we believe there are significant medical need and commercial potential, as well as proprietary drug discovery technologies. We have a cognition-focused collaboration with AstraZeneca and a strategic alliance with GlaxoSmithKline. Our most advanced product candidates are described below.

- *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, is a nicotinic channel blocker that inhibits the activity of various NNR subtypes, including multiple forms of the a4ß2 NNR. We are conducting two ongoing clinical trials of TC-5214 as an augmentation treatment, a Phase 2b study in subjects with MDD who do not respond well to first-line treatment with the marketed drug citalopram hydrobromide and a Phase 2 exploratory study in subjects with resistant hypertension.
- *AZD3480 (TC-1734)*. AZD3480 is a novel small molecule that modulates the activity of the a4ß2 NNR. We have a collaborative research and license agreement with AstraZeneca AB for the development and worldwide commercialization of AZD3480 as a treatment for various conditions characterized by cognitive impairment, including Alzheimer's disease and attention deficit/hyperactivity disorder, or ADHD.
- *TC-5619*. TC-5619 is a novel small molecule that we plan to develop for cognitive dysfunction in schizophrenia or 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 and a Phase 1 multiple rising dose clinical trial of TC-5619 in healthy

volunteers. Following our completion of a planned 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.

- *AZD1446 (TC-6683).* AZD1446 is the most advanced compound to arise from our preclinical research collaboration with AstraZeneca described below. AstraZeneca is currently conducting Phase 1 clinical development of AZD1446.
- *TC-2216*. TC-2216 is a product candidate for depression and anxiety disorders. TC-2216, which is a racemate, and its enantiomers inhibit the activity of the a4ß2 NNR. We completed a Phase 1 single rising dose clinical trial of TC-2216 in healthy volunteers in the first quarter of 2008. Based on 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 2009. If we elect to continue development in the future, we are likely to elect to develop one of the enantiomers of TC-2216 instead of conducting further clinical development of TC-2216.

Under our collaboration agreement with AstraZeneca, we and AstraZeneca are conducting a preclinical research collaboration that is designed to discover and develop additional compounds that act on the a4ß2 NNR as treatments for conditions characterized by cognitive impairment. The preclinical research collaboration has a planned four-year term, which began in January 2006 and is scheduled to expire in January 2010. 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.

In addition to our collaboration with AstraZeneca, we have a strategic alliance with GlaxoSmithKline that is designed to discover, develop and market product candidates that selectively target specified NNR subtypes in five therapeutic focus areas – smoking cessation, pain, obesity, addiction and Parkinson's disease.

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. 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, 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 achievement of a milestone event related to AZD3480 under our agreement with AstraZeneca. Except for these periods, we have never been profitable. As of March 31, 2009, we had an accumulated deficit of $194.6 million. We expect to incur substantial losses for the foreseeable future 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 as we invest in additional product opportunities and research programs. 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

On May 11, 2009, we announced preliminary results showing that AZD3480 (TC-1734) met the primary outcome measure in a Phase 2 clinical study in adults with ADHD. In the study, adult subjects received in random order daily doses of 5mg of AZD3480, 50mg of AZD3480 and placebo, each for two weeks with the dosing periods separated by a three-week washout period. At 50mg AZD3480, subjects showed statistically significant ($p<.01$) improvement in symptoms of ADHD as measured by the study's primary outcome measure, total symptom score on the Conners Adult ADHD Rating Scale – Investigator Rating. Statistically significant results were also achieved at 50mg AZD3480 on a number of secondary outcome measures in the study, including Stop Signal Reaction Time, a computerized assessment of behavioral inhibition, which is a core cognitive deficit of ADHD. AZD3480 was well tolerated in the study, and there were no serious adverse events.

Analyses of the full dataset from the study remain ongoing. AstraZeneca is expected to determine whether to conduct further development of AZD3480 in either or both of ADHD and Alzheimer's disease in the second quarter of 2009.

Revenue

As of March 31, 2009, we had received $34.2 million in aggregate upfront fees and milestone payments under our collaboration agreement with AstraZeneca and had recognized an additional $22.0 million in collaboration research and development revenue for research services that we provided in the preclinical research collaboration that we are conducting with AstraZeneca under the agreement. As of March 31, 2009, we had also received $43.0 million in aggregate payments under our alliance agreement with GlaxoSmithKline. We initially deferred recognition of $41.5 million of the amounts received from AstraZeneca and GlaxoSmithKline and are recognizing such amounts into revenue over the periods discussed in Note 2 to our unaudited financial statements included in this quarterly report. As of March 31, 2009, we had $28.7 million of these deferred amounts remaining to be recognized in future periods.

We acquired rights to Inversine in August 2002. Inversine is our only product approved for marketing by the U.S. Food and Drug Administration, or FDA. 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 $251,000 and $188,000 for the three months ended March 31, 2009 and 2008, respectively. We instituted a price increase of 19% for Inversine at the beginning of 2009 and a price increase of 62% for Inversine at the beginning of 2008 to help offset the impact of increased cost of product sales resulting primarily from FDA product and establishment fees. We experienced decreased sales volume during 2008. As a result of increased FDA fees and declining prescriptions for Inversine in recent years, we notified the FDA in March 2009 that we will discontinue Inversine effective as of

September 30, 2009. Product sales of Inversine resulted in a net loss of $31,000 for the year ended December 31, 2008. We do not expect our discontinuation of Inversine to have a material impact on our cash flows or results of operations in future periods.

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 March 31, 2009, 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 successful achievement of milestone events under our agreements with AstraZeneca and GlaxoSmithKline. 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 85% and 83% of our total operating expenses for the three months ended March 31, 2009 and 2008, respectively.

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 the 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 whether AstraZeneca or GlaxoSmithKline will exercise any options to license particular product candidates that become exercisable under the terms of our respective agreements, 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 this uncertainty, and because of the numerous uncertainties related to clinical trials and drug development generally, 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, legal and human resource functions. Other general and administrative expenses include expenses associated with stock options and other stock-based awards granted to personnel in those functions, depreciation and other facility costs not otherwise included in research and development expenses, patent-related costs, insurance costs and professional fees for consulting, legal, accounting and public and investor relations services.

Income Taxes

We recognized a $73,000 income tax benefit for the three months ended March 31, 2009 due to an election to forgo certain “bonus depreciation” for federal income tax purposes in exchange for a refundable research and development tax credit provided initially under the Housing Assistance Tax Act of 2008 and extended by the American Recovery and Reinvestment Act of 2009.

We generated net income for the three months and year ended December 31, 2006 due primarily due to the achievement of a milestone event related to AZD3480 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 March 31, 2009, we had net operating loss carryforwards of $118.3 million for federal income tax purposes and $118.2 million for state income tax purposes. We also had $6.0 million in research and development federal income tax credits as of March 31, 2009. 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 2023. 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 November 2002 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.

Fair Value

The carrying amounts of our cash and cash equivalents, short-term investments, accounts receivable, accounts payable, accrued expenses and long-term debt are considered to be representative of their respective fair values due to the short-term nature of our cash and cash equivalents, short-term investments, accounts receivable, accounts payable and accrued expenses and the market interest rates of our short-term investments and long-term debt. Our short-term investments in certificates of deposit of $37.2 million at March 31, 2009 are recorded at quoted prices of an active market.

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 U.S. generally accepted accounting principles for interim financial information. 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 and the recording of revenues and expenses that are not readily apparent from other sources. Actual results and experiences may differ materially from these estimates. In addition, 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, 2008 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 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. These policies 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, 2008.

Results of Operations

Three Months ended March 31, 2009 and 2008

Net Operating Revenues

	Three Months ended March 31,		
	2009	2008	Change
	(in thousands)		
Operating revenues:			
Collaboration research and development	$ 1,544	$ 2,258	$ (714)
Milestones and license fees from collaborations	4,120	1,620	2,500
Product sales, net	251	188	63
Grant revenue	226	210	16
Net operating revenues	$ 6,141	$ 4,276	$ 1,865

Net operating revenues for the three months ended March 31, 2009 increased by $1.9 million as compared to the three months ended March 31, 2008. The higher net operating revenues were primarily attributable to an increase of $2.5 million in milestones and license fees from collaborations revenue, partially offset by a decrease of $714,000 in collaboration research and development revenue. The increase in milestones and license fees from collaborations revenue reflected $2.5 million in aggregate payments received from GlaxoSmithKline upon achievement of milestone events under our alliance agreement related to progress in preclinical

programs. The decrease in collaboration research and development revenue for the 2009 period reflects reduced services rendered by us in our preclinical research collaboration with AstraZeneca resulting from progress previously made towards meeting the objectives of the research plan. Based on progress made to date in the preclinical research collaboration with AstraZeneca and the objectives and budget established for the preclinical research collaboration for 2009, we expect collaboration research and development revenue to decrease for future 2009 periods, as compared to the corresponding 2008 periods. The preclinical research collaboration with AstraZeneca is scheduled to expire in January 2010.

Research and Development Expenses

	Three Months ended March 31, 2009	2008	Change
	(in thousands)		
Research and development expenses	$ 9,495	$ 9,082	$ 413

Research and development expenses for the three months ended March 31, 2009 increased by $413,000 as compared to the three months ended March 31, 2008. The higher research and development expenses were primarily attributable to an increase of $586,000 in costs incurred for third-party research and development services in connection with our preclinical programs to $1.1 million for the 2009 period, from $526,000 for the 2008 period, partially offset by a decrease of $218,000 in costs incurred for third-party research and development services in connection with our clinical-stage product candidates (including costs for clinical trial activities, formulation activities, production of clinical trial materials, and pharmacology, toxicology and other non-clinical studies) to $2.2 million for the 2009 period, from $2.4 million for the 2008 period. The higher costs in connection with our preclinical programs were primarily related to the programs in the therapeutic focus areas of our alliance with GlaxoSmithKline.

The costs that we incurred for the three-month periods ended March 31, 2009 and 2008 for third-party services in connection with research and development of clinical-stage product candidates are show in the table below:

	Three months ended March 31, 2009	2008	Change
	(in thousands)		
TC-5214	$ 1,343	$ 764	$ 579
TC-5619	879	1,022	(143)
AZD3480 (TC-1734)	17	2	15
TC-2216	—	321	(321)

In addition to the product candidates shown in the table above, for the three months ended March 31, 2008, we incurred $329,000 in expenses for third-party research and development services in connection with TC-2696 and TC-6499, product candidates that we have since ceased developing.

General and Administrative Expenses

	Three months ended March 31,		
	2009	2008	Change
	(in thousands)		
General and administrative expenses	$ 1,470	$ 1,691	$ (221)

General and administrative expenses for the three months ended March 31, 2009 decreased by $221,000 as compared to the three months ended March 31, 2008. The lower general and administrative expenses were primarily attributable to a decrease of $271,000 in patent-related expenses, which reflects differences in the timing of nationalization.

Interest Income and Interest Expense

	Three months ended March 31,		
	2009	2008	Change
	(in thousands)		
Interest income	$ 362	$ 970	$ (608)
Interest expense	60	51	9

Interest income for the three months ended March 31, 2009 decreased by $608,000 as compared to the three months ended March 31, 2008. The decrease was primarily attributable to lower short-term interest rates and a lower average cash and investment balance during the 2009 period. Interest expense for the three months ended March 31, 2009 increased by $9,000 as compared to the three months ended March 31, 2008. The increase was attributable to higher average indebtedness under our loan facilities.

Liquidity and Capital Resources

Sources of Liquidity

We received from GlaxoSmithKline a $2,000,000 payment in April 2009 and a $500,000 payment in March 2009 upon achievement of milestone events under our alliance agreement related to progress in preclinical programs.

We made our final monthly payment of $23,000 on a loan facility that we had with R.J. Reynolds Tobacco Holdings, Inc., or RJRT, on the maturity date of January 1, 2009.

In March 2008, we entered into a loan agreement with a bank that provided borrowing capacity of $5.3 million to fund the purchase of equipment, furnishings, software and other fixed assets and enable the refinancing of our then-existing loan facility with RJRT. We borrowed $4.8 million upon entering into the loan agreement and borrowed the remaining $489,000 in September 2008. Pursuant to the loan agreement, we granted a first priority security interest in favor of the bank in the assets acquired with the proceeds of the loan facility. The March 2008 loan bears interest at a fixed rate of 5.231% per annum and is repayable in equal monthly installments of $112,000 beginning April 1, 2008 and continuing through the maturity date of March 1, 2012. We used $1.7 million of the proceeds from the March 2008 loan to pay and satisfy in full the principal and interest outstanding on two of the tranches under the 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. The September 2008 loan bears interest at a fixed rate of 6.131% per annum and is repayable in equal monthly installments of $11,000 beginning October 1, 2008 and continuing through the maturity date of September 1, 2012. As of March 31, 2009, the outstanding principal balance under the loan facility was $4.1 million. There is no additional borrowing capacity remaining available to us under the loan agreement.

As a result of increased FDA fees and declining prescriptions for Inversine in recent years, we notified the FDA in March 2009 that we will discontinue Inversine effective as of September 30, 2009. The net contribution from Inversine sales has not historically been a significant source of cash.

Our cash, cash equivalents and short-term investments were $80.2 million as of March 31, 2009 and $88.4 million as of December 31, 2008. As of March 31, 2009, substantially all of our cash, cash equivalents and short-term investments were invested in bank depository accounts, certificates of deposit, and institutional money market funds at Branch Banking and Trust Company, RBC Bank and Evergreen Investments, an affiliated entity of Wells Fargo & Company. Approximately 93% of our $18.5 million invested in institutional money market funds as of March 31, 2009 were invested in funds that invest 100% in U.S. Treasury bills and notes. In addition, our investments in Evergreen money market funds are currently subject to the U.S. Treasury Department's Temporary Guarantee Program for Money Market Funds initiated in September 2008. The program is expected to be in effect through September 18, 2009, at which time the Secretary of the Treasury is expected to review the need and terms for the program.

Cash Flows

	Three Months ended March 31,		
	2009	2008	Change
		(in thousands)	
Net cash used in operating activities	$ (7,788)	$ (6,717)	$ (1,071)
Net cash used in investing activities	(93)	(13,294)	13,201
Net cash (used in) provided by financing activities	(316)	32,075	(32,391)
Net (decrease) increase in cash and cash equivalents	$ (8,197)	$ 12,064	

Net cash used in operating activities for the three months ended March 31, 2009 increased by $1.1 million as compared to the three months ended March 31, 2008. The increase was principally due to:

- a decrease in net loss of $1.1 million for the three months ended March 31, 2009 to $4.7 million, from $5.8 million for the three months ended March 31, 2008;
- a difference of $4.0 million in the change in our collaboration revenue and accounts receivable balance for the three months ended March 31, 2009 (an increase of $1.6 million) as compared to the change in our collaboration revenue and accounts receivable balance for the three months ended March 31, 2008 (a decrease of $2.4 million), primarily as a result of the timing of our achievement of milestones and collaboration research and development activities and receipt of related payments from GlaxoSmithKline and AstraZeneca; and

- a difference of $1.0 million in the decrease in accounts payable and accrued expenses for the three months ended March 31, 2009 ($1.1 million) as compared to the decrease in accounts payable and accrued expenses for the three months ended March 31, 2008 ($2.1 million), which was primarily attributable to lower employee bonuses paid in January 2009 than in January 2008.

Net cash used in investing activities for the three months ended March 31, 2009 decreased by $13.2 million as compared to the three months ended March 31, 2008. 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. The net purchases of investments for the three months ended March 31, 2008 were $11.8 million and occurred primarily upon our receipt of proceeds from a public stock offering that we completed in January 2008. Additionally, we purchased $93,000 of property and equipment for the three months ended March 31, 2009, a decrease of $1.4 million from $1.5 million in property and equipment purchases for the three months ended March 31, 2008.

Net cash used in financing activities for the three months ended March 31, 2009 was $316,000 and net cash provided by financing activities for the three months ended March 31, 2008 was $32.1 million, a difference of $32.4 million. The change 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 $2.5 million under our loan facilities for the three months ended March 31, 2008.

Funding Requirements

As of March 31, 2009, we had an accumulated deficit of $194.6 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 those described under “Management’s Discussion and Analysis of Financial Condition and Results of Operations – Liquidity and Capital Resources – Funding Requirements” in our Annual Report on Form 10-K for the year ended December 31, 2008.

We anticipate that implementing our strategy will require substantial additional capital 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 as we invest in additional product opportunities and research programs. 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 2011, without taking into account amounts that we would be entitled to receive if clinical development milestone events are achieved under our agreement with AstraZeneca or our agreement with GlaxoSmithKline. However, our operating plan may change, and 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 alliances, collaborations or licensing arrangements, public or private equity or debt offerings or other financings. The global

credit and financial markets have recently experienced a period of unusual volatility and illiquidity. This, coupled with other factors, may dramatically limit our access to additional equity or debt financing in the future on acceptable terms or at all. Also, additional alliances, collaborations or licensing arrangements may not be available on acceptable terms or 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 accurately determine the completion dates and related costs of our 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 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.

Recent Accounting Pronouncements

In April 2009, the FASB issued FASB Staff Position FAS 107-1 and APB 28-1, *Interim Disclosures about Fair Value of Financial Instruments*, or FSP FAS 107-1 and APB 28-1. FSP FAS 107-1 and APB 28-1 amends FASB Statement No. 107, *Disclosures about Fair Value of Financial Instruments*, to require disclosures about fair value of financial instruments in interim reporting periods as well as in annual financial statements. FSP FAS 107-1 and APB 28-1 also amends Accounting Principles Board Opinion No. 28, *Interim Financial Reporting*, to require fair value of financial instrument disclosures at interim reporting periods. FSP FAS 107-1 and APB 28-1 is effective for periods ending after June 15, 2009. We do not expect FSP FAS 107-1 and APB 28-1 to have a material impact on our financial results.

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 that are of high credit quality. Our investments are typically short term in nature. As of March 31, 2009, we had cash, cash equivalents and short-term investments of $80.2 million. 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 March 31, 2009 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, clinical trial sites and contract manufacturers in Europe and 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 or Indian Rupee/U.S. dollar exchange rate were to strengthen or weaken by 10% against the corresponding exchange rate as of March 31, 2009, 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 March 31, 2009 that materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

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™. Any 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: May 11, 2009

/s/ J. Donald deBethizy

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

Date: May 11, 2009

/s/ Alan A. Musso

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

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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: May 11, 2009

/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: May 11, 2009

/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 March 31, 2009 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, as amended; 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: May 11, 2009

/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 March 31, 2009 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, as amended; 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: May 11, 2009

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