Table of Contents

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, 2007

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	**27101**
(Address of Principal Executive Offices)	**(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, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☐ Accelerated filer ☐ Non-accelerated filer ☒

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, 2007, the registrant had 20,448,761 shares of common stock, $0.001 par value per share, outstanding.

Table of Contents

TARGACEPT, INC.

FORM 10-Q
TABLE OF CONTENTS

PART I. Financial Information

Cautionary Note Regarding Forward-Looking Statements

This quarterly report includes forward-looking statements within the meaning of 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, our development plans for the treatment combination that we refer to as TRIDMAC™, our future operations, financial position, revenues or costs, 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" 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 the development of AZD3480 (TC-1734); AstraZeneca's right to terminate the preclinical research collaboration that we and AstraZeneca are currently conducting prior to the end of the planned four-year term; our ability to discover and develop product candidates under our alliance with GlaxoSmithKline; the position of applicable regulatory authorities with regard to a treatment combination that includes mecamylamine hydrochloride, which is a racemate, as compared to one of its constituent enantiomers such as TC-5214; the results of clinical trials and non-clinical studies and assessments with respect to our current and future product candidates in development; 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 patient enrollment or data analysis; the timing and success of submission, acceptance and approval of regulatory filings; our ability to obtain substantial additional funding; our ability to establish additional strategic alliances; 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, 2006 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, whether as a result of new information, future events or otherwise, 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.

Table of Contents

Item 1. Financial Statements

TARGACEPT, INC.

BALANCE SHEETS

	June 30, 2007 (unaudited)	December 31, 2006
ASSETS		
Current assets:		
Cash and cash equivalents	$ 42,585,332	$ 41,744,363
Short-term investments	20,411,594	12,445,193
Accounts receivable	2,243,345	23,367,959
Inventories	171,038	173,693
Prepaid expenses	1,344,058	1,121,698
Total current assets	66,755,367	78,852,906
Property and equipment, net	2,700,070	2,040,355
Intangible assets, net of accumulated amortization of $185,673 and $166,791 at June 30, 2007 and December 31, 2006, respectively	456,327	475,209
Total assets	$ 69,911,764	$ 81,368,470
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 2,242,669	$ 1,982,180
Accrued expenses	2,813,680	3,889,114
Deferred rent incentive	33,554	234,877
Current portion of long-term debt	1,030,265	593,330
Current portion of deferred license fee revenue	2,250,000	2,250,000
Total current liabilities	8,370,168	8,949,501
Long-term debt, net of current portion	2,097,092	816,072
Deferred license fee revenue, net of current portion	5,479,167	6,604,167
Total liabilities	15,946,427	16,369,740
Commitments		
Stockholders' equity:		
Common stock, $0.001 par value, 100,000,000 shares authorized at June 30, 2007 and December 31, 2006; 19,169,596 and 19,132,233 shares issued and outstanding at June 30, 2007 and December 31, 2006, respectively	19,170	19,132
Capital in excess of par value	203,163,802	201,141,257
Accumulated deficit	(149,217,635)	(136,161,659)
Total stockholders' equity	53,965,337	64,998,730
Total liabilities and stockholders' equity	$ 69,911,764	$ 81,368,470

See accompanying notes.

TARGACEPT, INC.

STATEMENTS OF OPERATIONS
(unaudited)

	Three Months Ended June 30,		Six months Ended June 30,	
	2007	2006	2007	2006
Revenue:				
Collaboration research and development	$ 2,075,341	$ —	$ 3,201,926	$ 62,224
Milestones and license fees from collaboration	562,500	312,500	1,125,000	520,833
Product sales, net	204,208	130,707	344,661	307,626
Grant revenue	—	146,200	221,652	304,848
Net revenue	2,842,049	589,407	4,893,239	1,195,531
Operating expenses:				
Research and development (including stock-based compensation of $225,521 and $110,036 for the three months ended June 30, 2007 and 2006, respectively, and $429,166 and $198,047 for the six months ended June 30, 2007 and 2006, respectively)	9,079,328	4,595,634	15,269,665	9,356,438
General and administrative (including stock-based compensation of $1,416,252 and $48,153 for the three months ended June 30, 2007 and 2006, respectively, and $1,503,528 and $87,312 for the six months ended June 30, 2007 and 2006, respectively)	2,628,446	1,331,148	3,966,636	2,499,009
Cost of product sales	205,134	(22,332)	370,625	168,615
Total operating expenses	11,912,908	5,904,450	19,606,926	12,024,062
Loss from operations	(9,070,859)	(5,315,043)	(14,713,687)	(10,828,531)
Other income (expense):				
Interest income	837,103	722,089	1,701,016	1,021,648
Interest expense	(28,838)	(23,864)	(43,305)	(48,035)
Total other income (expense)	808,265	698,225	1,657,711	973,613
Net loss	(8,262,594)	(4,616,818)	(13,055,976)	(9,854,918)
Preferred stock accretion	—	(529,495)	—	(3,332,705)
Net loss attributable to common stockholders	$ (8,262,594)	$ (5,146,313)	$(13,055,976)	$(13,187,623)
Basic and diluted net loss attributable to common stockholders per share	$ (0.43)	$ (0.33)	$ (0.68)	$ (1.65)
Weighted average common shares outstanding—basic and diluted	19,147,011	15,595,020	19,141,932	7,976,519

See accompanying notes.

TARGACEPT, INC.

STATEMENTS OF CASH FLOWS
(unaudited)

	Six Months Ended June 30,	
	2007	2006
Operating activities		
Net loss	$(13,055,976)	$ (9,854,918)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	418,435	412,995
Stock-based compensation expense	1,932,694	285,359
Recognition of deferred rent incentive	(201,323)	(201,323)
Changes in operating assets and liabilities, excluding the effects from acquired assets and liabilities:		
Accounts receivable	21,124,614	(1,144,552)
Inventories	2,655	6,073
Prepaid expenses and accrued interest receivable	(217,429)	(470,212)
Accounts payable and accrued expenses	(814,945)	(844,823)
Deferred license fee revenue	(1,125,000)	10,538,636
Net cash provided by (used in) operating activities	8,063,725	(1,272,765)
Investment activities		
Purchase of short-term investments	(31,362,762)	(15,000,000)
Proceeds from sale of short-term investments	23,391,430	3,000,000
Purchase of property and equipment	(1,059,268)	(799,697)
Net cash used in investing activities	(9,030,600)	(12,799,697)
Financing activities		
Proceeds from issuance of notes payable and long-term debt	2,000,000	406,967
Principal payments on notes payable and long-term debt	(282,045)	(622,862)
Proceeds from issuance of common stock	89,889	40,814,506
Net cash provided by financing activities	1,807,844	40,598,611
Net increase in cash and cash equivalents	840,969	26,526,149
Cash and cash equivalents at beginning of period	41,744,363	24,851,302
Cash and cash equivalents at end of period	$ 42,585,332	$ 51,377,451

See accompanying notes.

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS
June 30, 2007

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 multiple 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, 2006. 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, 2007 and 2006 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.

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.

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
June 30, 2007

2. Summary of Significant Accounting Policies (continued)

Research fee revenue is earned and recognized as research is performed and related expenses are incurred. Non-refundable upfront fees are deferred and recognized as revenue 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 research and development 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 are not met, the Company would recognize the portion of the milestone payment that corresponds to work performed as revenue upon receipt and defer recognition of the remaining portion until the performance obligations are completed.

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.

Accrued Expenses

The Company records accruals based on estimates of the services received, efforts expended and amounts owed pursuant to contracts with numerous clinical trial centers, contract research organizations and other service providers. In the normal course of business, the Company contracts with third parties to perform various clinical trial and development activities in the ongoing development of potential products. The financial terms of these agreements are subject to negotiation and variation from contract to contract and may result in uneven payment flows. Payments under the contracts depend on factors such as the achievement of certain events, the production of drug substance or drug product, the successful recruitment of subjects, the completion of portions of the clinical trial or similar factors. The objective of the Company's accrual policy is to match the recording of expenses in its financial statements to the actual services received and efforts expended. As such, expense accruals are recognized based on the Company's estimate of the degree of completion of the event or events specified in the specific contract.

Research and Development Expenses

Research and development costs are expensed as incurred and include related salaries of, and stock-based compensation for, personnel involved in research and development activities, contractor fees, administrative expenses and allocations of research-related overhead costs. Administrative expenses and research-related overhead costs included in research and development expenses consist

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
June 30, 2007

2. Summary of Significant Accounting Policies (continued)

of allocations of facility and equipment lease charges, depreciation and amortization of assets, and insurance, legal and supply costs that are directly related to research and development activities. The Company directly reduces research and development expenses for amounts reimbursed pursuant to cost-sharing agreements. Research and development expenses were reduced by $35,000 and $42,000 for the three months ended June 30, 2007 and 2006, respectively, and $146,000 and $123,000 for the six months ended June 30, 2007 and 2006, respectively, for costs reimbursed by AstraZeneca AB under the terms of the collaboration agreement described in Note 4.

Stock-Based Compensation

The Company follows the fair value recognition provisions of Statement of Financial Accounting Standards, or SFAS, No. 123 (revised 2004), *Share-Based Payment*, or SFAS 123R, using the modified-prospective-transition method. Under SFAS 123R, the Company recognizes the grant-date fair value of stock options and other stock-based compensation issued to employees and non-employee directors over the requisite service periods, which are typically the vesting periods. The Company currently uses the Black-Scholes-Merton formula to estimate grant-date fair value and expects to continue to use this valuation model in the future. The volatility assumption used in the Black-Scholes-Merton formula is based on the calculated historical volatility of twelve benchmark biotechnology companies that have been identified as comparable public entities. The expected term of options granted represents the period of time that options are expected to be outstanding, using historical data to estimate option exercises and forfeitures. The risk-free rate for periods within the contractual life of the option is based on the U.S. Treasury yield curve in effect at the time of grant.

Income Taxes

The liability method is used in accounting for income taxes as required by SFAS No. 109, *Accounting for Income Taxes*, or SFAS 109. Under this method, 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.

Uncertain Tax Positions

On January 1, 2007, the Company adopted Financial Accounting Standards Interpretation No. 48, *Accounting for Uncertainty in Income Taxes*, or FIN 48. FIN 48 clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements in accordance with SFAS 109, *Accounting for Income Taxes*. 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 or penalties recognized in accordance with FIN 48 as interest expense or an expense other than income tax expense, respectively.

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
June 30, 2007

2. Summary of Significant Accounting Policies (continued)

Net Loss Per Share Attributable to Common Stockholders

The Company computes net loss per share attributable to common stockholders 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 net loss attributable to common stockholders by the weighted average number of common shares outstanding. Diluted net loss per share attributable to common stockholders, or Diluted EPS, is computed by dividing net loss attributable to common stockholders 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 conversion of preferred stock, the exercise of stock options and the exercise of warrants. The Company has excluded all outstanding stock options and warrants from the calculation of net loss per share attributable to common stockholders 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, these securities may have been included in the calculation. These potentially dilutive securities consist of the following on a weighted-average basis for the periods presented:

	Six Months Ended June 30,	
	2007	2006
Outstanding stock options	2,431,422	1,616,141
Redeemable convertible preferred stock	—	8,176,937
Outstanding warrants	—	127,131
Total	2,431,422	9,920,209

Initial Public Offering and Earnings Per Share Information

On April 18, 2006, the Company completed an initial public offering, or IPO, of 5,000,000 shares of its common stock at a price of $9.00 per share. The Company's net proceeds from the IPO, after deducting underwriters' discounts and commissions and offering expenses payable by the Company, were $40,775,000. The Company's common stock began trading on the NASDAQ Global Market (formerly known as the NASDAQ National Market) on April 12, 2006.

All outstanding shares of the Company's Series A, Series B, and Series C convertible preferred stock, or Preferred Stock, automatically converted into shares of common stock upon completion of the IPO. Series A converted at a ratio of approximately 0.133 common share per preferred share, Series B converted at a ratio of approximately 0.133 or 0.318 common share per preferred share and Series C converted at a ratio of approximately 0.144 common share per preferred share. These conversion ratios reflect a 1 for 7.5 share reverse stock split effected February 3, 2005. In addition, upon completion of the IPO, all outstanding warrants expired unexercised.

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
June 30, 2007

2. Summary of Significant Accounting Policies (continued)

Recent Accounting Pronouncements

In July 2007, the EITF reached consensus on 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. EITF 07-3 concluded that non-refundable 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. EITF 07-3 is effective for new contracts entered into during fiscal years beginning after December 15, 2007, including interim periods within those fiscal years. The Company is currently evaluating the expected impact of the provisions of EITF 07-3 on its financial results, if any.

3. Inventories

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

	June 30, 2007	December 31, 2006
Raw materials	$ 51,877	$ —
Finished goods	119,161	3,600
Work-in-progress	—	170,093
	$171,038	$ 173,693

4. Collaborative Research and License 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 deficits 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 future 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 plans to recognize as revenue over

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
June 30, 2007

4. Collaborative Research and License Agreements (continued)

the expected 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 AstraZeneca made a determination whether 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 of AstraZeneca's decision, in the first quarter of 2007, the Company began amortizing 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 (TC-1734).

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 recorded milestone revenue of $20,000,000 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 other payments of up to $249,000,000, contingent upon the achievement of development, regulatory and first commercial sale milestones for AZD3480 (TC-1734), as well as tiered 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 of these payments that are received from AstraZeneca. For the six months ended June 30, 2007 and 2006, respectively, the Company had recorded $0 and $125,000 in license fees to UKRF.

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 research fees that the Company was eligible to receive from AstraZeneca while it was conducting the safety and product characterization studies of AZD3480 (TC-1734) as deferred revenue. As of June 30, 2006, the Company had recorded $1,059,000 as deferred revenue, which represented 50% of its research expenses incurred in the research collaboration to that date while AstraZeneca conducted the safety and product characterization studies. 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, and plans to recognize future collaboration research and development revenue as the research is performed and related expenses are incurred. The Company recognized collaboration research and development revenue of $1,837,000 for research fees for the three months ended June 30, 2007 and $2,963,000 for the six months ended June 30, 2007. The Company recognized additional collaboration research and development revenue of $239,000 and $0 for the three months ended June 30, 2007 and 2006, respectively, and $239,000 and $62,000 for the six months ended June 30, 2007 and 2006, respectively, for clinical trial material purchased by AstraZeneca from the Company.

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
June 30, 2007

5. Related Party Transactions

R.J. Reynolds Tobacco Holdings, Inc., or RJRT, beneficially owned more than 5% of the Company's outstanding shares of common stock prior to the completion of its initial public offering in April 2006, but the Company believes that it no longer owns more than 5% of its outstanding shares of common stock. The Company has entered into the following transactions and agreements with RJRT in the ordinary course of business.

During 2002, the Company entered into an agreement to borrow $2,500,000 from RJRT. The note payable to RJRT was amended in January 2004 to allow for up to three additional tranches to be advanced to the Company for up to a total of $2,000,000. The Company was advanced an additional tranche on April 1, 2004 in the amount of $1,027,000. This additional tranche accrues interest at 5.87% and is repayable in monthly payments of $24,000 through the maturity date of April 1, 2008. The Company was advanced another additional tranche on December 23, 2004 in the amount of $973,000. This additional tranche accrues interest at 6.89% and is repayable in monthly payments of $23,000 through the maturity date of January 1, 2009. The original borrowing of $2,500,000 matured on May 1, 2006 and was paid and satisfied in full. In June 2006, the note payable to RJRT was further amended to permit the Company to borrow an additional $2,000,000 on or before June 30, 2007. The Company borrowed the additional $2,000,000 in two tranches in June 2007. The first June 2007 tranche was in the amount of $1,600,000, accrues interest at 7.36% and is repayable in monthly payments of $39,000 through the maturity date of June 1, 2011. The second June 2007 tranche was in the amount of $400,000, accrues interest at 7.48% and is repayable in monthly payments of $10,000 through the maturity date of June 1, 2011. The Company paid $142,000 and $320,000 under the RJRT note for the three months ended June 30, 2007 and 2006, respectively, and $284,000 and $581,000 for the six months ended June 30, 2007 and 2006, respectively.

A member of the Company's board of directors served as an officer of RJRT and its parent company, Reynolds American, Inc., until retiring from RJRT and Reynolds American, Inc. effective as of August 31, 2006. Prior to his retirement, equity compensation for the director's service was made, at the director's request, directly to RJRT. The number of shares subject to stock options granted to RJRT in connection with the director's services was 1,000 shares per year. In connection with the issuance of the stock options, the Company recognized compensation expense of $0 and $420 for the three months ended June 30, 2007 and 2006, respectively, and $0 and $840 for the six months ended June 30, 2007 and 2006, respectively.

6. Income Taxes

On January 1, 2007, the Company adopted Financial Accounting Standards Interpretation No. 48, *Accounting for Uncertainty in Income Taxes*, or FIN 48. There was no cumulative effect adjustment on adoption of FIN 48. Accordingly, the Company had no unrecognized tax benefits or associated interest or penalties at adoption or at June 30, 2007. Since the Company has incurred cumulative operating losses since inception, all years remain open for major jurisdictions.

7. Subsequent Events

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 (together, 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, obesity, addiction and Parkinson's disease.

TARGACEPT, INC.

NOTES TO UNAUDITED FINANCIAL STATEMENTS (continued)
June 30, 2007

7. Subsequent Events (continued)

Under the agreement, the Company has agreed, for specified periods of time and at its sole expense, 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 II 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 that are the focus of the Company's collaboration agreement with AstraZeneca AB described in Note 4.

Under the 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 $3,500,000, based on the closing price of the Company's common stock on the trading day immediately preceding the date that the alliance was announced. The Company plans to recognize 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 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.

The Company is also eligible to receive up to $1,500,000,000 in other 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 tiered 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. If GlaxoSmithKline's option were to be triggered with respect to the Company's product candidate TC-2696 and exercised, the Company would be required to pay UKRF a low single digit percentage of payments received from GlaxoSmithKline with respect to TC-2696 and could also be required to pay two other university licensors a low single digit percentage of payments received from GlaxoSmithKline with respect to TC-2696.

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

You should read the following discussion 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, 2006, 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 may differ materially from those expressed or implied by forward-looking statements as a result of various important factors, 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, 2006.

Overview

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 have five clinical-stage product candidates and two preclinical product candidates.

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. 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 deficits 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.

Our most advanced product candidates, in addition to AZD3480 (TC-1734), are described below.

- *TC-2216*. TC-2216 is a product candidate that we are developing as a monotherapy for depression and anxiety disorders. We are currently conducting a Phase I single rising dose clinical trial of TC-2216.
- *Mecamylamine hydrochloride and TC-5214*. In 2006, we completed a Phase II clinical trial of mecamylamine hydrochloride as an augmentation treatment to citalopram hydrobromide, a commonly prescribed treatment for depression marketed as Celexa in the United States, for major depression. We refer to this treatment combination as TRIDMAC. Mecamylamine hydrochloride is the active ingredient in Inversine, our only product approved by the U.S. Food and Drug Administration, or FDA, for marketing. TC-5214 is one of the enantiomers of mecamylamine hydrochloride. We have not yet conducted a clinical trial of TC-5214, but expect that we will elect to advance TC-5214 into clinical development as an augmentation treatment for major depression in lieu of further development of mecamylamine hydrochloride. We expect to confirm our plans with regard to the further development of TC-5214 or TRIDMAC following a meeting with the FDA that is scheduled to occur in August 2007.

- *TC-2696.* TC-2696 is a product candidate that we are developing currently as a treatment for acute post-operative pain. We are currently conducting a Phase II clinical trial of TC-2696 in third molar extraction patients. We expect the results of this trial to be available in the second half of 2007.
- *TC-5619.* TC-5619 is a preclinical product candidate that modulates the a7 NNR for which we are currently conducting a Phase I single rising dose clinical trial. We believe compounds that selectively target the a7 NNR may have application in the treatment of conditions such as schizophrenia, cognitive impairment and inflammation.

  Under our agreement with AstraZeneca, we are entitled to offer to AstraZeneca the right to develop and commercialize TC-5619 as a treatment for any or all of schizophrenia and various conditions characterized by cognitive impairment under the terms of the agreement. We are currently engaged in discussions with AstraZeneca and are considering whether to offer this right to AstraZeneca. If we elect not to offer this right to AstraZeneca, we would generally be permitted to pursue the development and commercialization of TC-5619 outside of the collaboration only for indications other than schizophrenia and various conditions characterized by cognitive impairment. If we offer this right to AstraZeneca, AstraZeneca could license TC-5619 under the terms of the agreement. Alternatively, AstraZeneca could negotiate a development plan with us pursuant to which we would conduct development of TC-5619 through a Phase II clinical proof of concept trial, at which stage AstraZeneca could license TC-5619 under the terms of the agreement. If AstraZeneca were ultimately to elect not to license TC-5619, we would be permitted to develop and commercialize TC-5619 for any indication.
- *TC-6499.* TC-6499 is a preclinical product candidate that we plan to develop initially for neuropathic pain. We are currently conducting manufacturing activities necessary to support the planned initiation of clinical development of this product candidate in the second half of 2007.

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 strategic alliances 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, 2007, we had an accumulated deficit of $149.2 million. We expect to incur substantial losses for the foreseeable future as we expand our clinical

trial activity, as our product candidates in development for depression and anxiety and TC-5619 and other product candidates arising from our a7 NNR program advance through the development cycle, as we initiate and progress activities under our alliance agreement with GlaxoSmithKline, as product candidates that arise out of our preclinical research collaboration with AstraZeneca progress and as we invest in additional product opportunities and research programs and expand our research and development infrastructure. A substantial portion of our revenue for the next several years will depend on the conduct of research and the successful achievement of milestone events in the development of AZD3480 (TC-1734) under our agreement with AstraZeneca and on the successful achievement of milestone events under our 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. Our revenue may vary substantially from quarter to quarter and year to year. 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 2007, we announced the initiation by AstraZeneca of a Phase IIb clinical trial of AZD3480 (TC-1734) in Alzheimer's disease. The trial is a double blind, placebo controlled study being conducted at sites in Western Europe, Eastern Europe and Canada. The trial design provides for approximately 500 patients with mild to moderate Alzheimer's disease to be randomly assigned to one of three dose groups of AZD3480 (TC-1734), to an active comparator or to placebo and to be dosed over a 12-week period. The primary outcome measure of the trial is the Alzheimer's Disease Assessment Scale-cognitive subscale, or ADAS-Cog. Secondary outcome measures include the Alzheimer's Disease Cooperative Study—Clinical Global Impression of Change scale and the CDR test battery, which is the test battery that we used in prior clinical trials of AZD3480 (TC-1734) in age associated memory impairment and mild cognitive impairment. The trial is expected to be completed by the end of 2008. We also expect AstraZeneca to initiate a Phase IIb clinical trial of AZD3480 (TC-1734) in cognitive deficits in schizophrenia in August 2007.

We also announced in July 2007 our initiation of a Phase I clinical trial of TC-5619. The trial is a double blind, placebo controlled study with single escalating doses administered orally to healthy volunteers. The trial, which is being conducted in France, is designed to evaluate the safety and tolerability of TC-5619 and to assess its pharmacokinetic profile.

In addition, we announced in July 2007 that we entered into a product development and commercialization agreement with 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, obesity, addiction and Parkinson's disease. Additional information regarding the alliance is included in our Current Report on Form 8-K filed with the SEC on August 2, 2007.

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, 2006 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 both 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, 2006.

Financial Operations Overview

Net Revenue

Our collaboration agreement with AstraZeneca became effective in January 2006. AstraZeneca paid us an initial fee of $10.0 million in February 2006, and an additional $20.0 million in January 2007 as a result of its determination in December 2006 to proceed with further development of AZD3480 (TC-1734). We are eligible to receive other payments of up to $249.0 million, contingent upon the achievement of development, regulatory and first commercial sale milestones for AZD3480 (TC-1734) for Alzheimer's disease, cognitive deficits in schizophrenia and ADHD, and royalties on future product sales. If AZD3480 (TC-1734) is developed under the agreement for other indications characterized by cognitive impairment, we would also be eligible to receive payments contingent upon the achievement of development, regulatory and first commercial sale milestones for AZD3480 (TC-1734) for those indications. Under the terms of a sponsored research agreement and a subsequent license agreement between us and the University of Kentucky Research Foundation, or UKRF, we are required to pay to UKRF a low single digit percentage of any of these amounts that we receive from AstraZeneca.

We and AstraZeneca are conducting a preclinical research collaboration that is designed to discover and develop additional compounds that, like AZD3480 (TC-1734), act on the NNR known as a4ß2. Under the terms of our agreement, AstraZeneca has agreed to pay us research fees based on an agreed reimbursement rate for research services rendered, subject to specified limits.

We entered into our alliance agreement and related stock purchase agreement with GlaxoSmithKline in July 2007. Under the agreements, GlaxoSmithKline made an initial payment to us of $20.0 million and purchased 1,275,502 shares of our common stock for an aggregate purchase price of $15.0 million. We are also eligible to receive other payments of up to $1.5 billion, contingent upon the achievement of discovery, development, regulatory and commercial milestones across the five therapeutic focus areas of the alliance, as well as royalties on future sales of any product in the alliance that is licensed by GlaxoSmithKline. If GlaxoSmithKline's

option under the agreement were to be triggered with respect to TC-2696 and exercised, we would be required to pay UKRF a low single digit percentage of payments received from GlaxoSmithKline with respect to TC-2696 and could also be required to pay two other university licensors a low single digit percentage of payments received from GlaxoSmithKline with respect to TC-2696.

We acquired rights to Inversine in 2002. Inversine is approved for the management of moderately severe to severe essential hypertension, a high blood pressure disorder. 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 $345,000 for the six months ended June 30, 2007 and $585,000 for the year ended December 31, 2006. We do not have or use a sales force or promote Inversine. Accordingly, we do not anticipate any significant increase in Inversine sales. If any of the very limited number of physicians that most often prescribe Inversine were to cease to do so, our revenue generated by Inversine sales would likely be substantially less. We have no other commercial products for sale and do not anticipate that we will have any other commercial products for sale for at least the next several years.

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 currently expect to receive approximately $1.1 million in the aggregate in connection with the grant over a five-year period that began in July 2006. In addition, we were awarded a cooperative agreement from the National Institute of Standards and Technology, or NIST, through its Advanced Technology Program in 2003. Under that agreement, we received $1.8 million over a three-year period that concluded in the second half of 2006 to help fund the development of sophisticated new computer simulation software designed to more accurately predict biological and toxicological effects of drugs. We recognize grant revenue as we perform the work and incur reimbursable costs. Funding for awards under federal grant programs is subject to the availability of funds as determined annually in the federal appropriations process.

Research and Development Expenses

Since our inception, we have focused our activities on our drug discovery and development programs. We recognize research and development expenses as they are incurred. Research and development expenses represented approximately 78% of our total operating expenses for both the six months ended June 30, 2007 and the year ended December 31, 2006.

Research and development expenses include expenses associated with:

- the employment of personnel involved in our drug discovery and development activities;
- research and development facilities and equipment;
- research activities under the a4ß2 research collaboration with AstraZeneca;
- research and development activities in fulfillment of our obligations under our alliance agreement with GlaxoSmithKline;

- the screening, identification and optimization of product candidates;
- the development and enhancement of our proprietary databases and computer-based molecular design technologies, which we refer to collectively as Pentad;
- formulation and chemical development;
- production of clinical trial materials, including fees paid to contract manufacturers;
- preclinical animal studies, including the costs to engage third-party research organizations;
- quality assurance activities;
- compliance with FDA regulatory requirements;
- consulting, license and sponsored research agreements with third parties;
- depreciation of capital assets used to develop our products; and
- stock options or other stock-based compensation granted to personnel in research and development functions.

We use our employee and infrastructure resources across several programs. We currently have clinical, preclinical and early research programs ongoing, 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 do not account for internal research and development costs on a program-by-program basis and cannot state precisely the total costs incurred on a program-by-program basis.

Under the terms of our collaboration agreement with AstraZeneca, substantially all development costs for AZD3480 (TC-1734) have been assumed by AstraZeneca. The following table shows, for the periods presented, total amounts that we incurred for third-party services with respect to preclinical study support, clinical supplies and clinical trials, as applicable, for our other most advanced product candidates.

Product Candidate	Three months ended June 30, 2007	Three months ended June 30, 2006	Six months ended June 30, 2007	Six months ended June 30, 2006
	(in thousands)			
TC-2216	$ 323	$ 279	$ 477	$ 1,016
Mecamylamine hydrochloride and TC-5214	1,377	114	1,651	241
TC-2696	346	136	552	198
TC-5619	719	205	1,084	265
TC-6499	606	—	626	—
	$ 3,371	$ 734	$ 4,390	$ 1,720

Our expenditures on current and future preclinical and clinical development programs are subject to numerous uncertainties in timing and cost to completion. We test compounds in numerous preclinical studies for safety, toxicology and efficacy. We then conduct clinical trials for those product candidates that we determine to be the most promising. If we do not establish an alliance for the development of a particular product candidate, we fund these trials ourselves. As we obtain results from clinical trials, we may elect to discontinue or delay trials for some product candidates in order to focus our resources on more promising product candidates. Completion of clinical trials by us or our collaborators may take several years or more, but the length of time generally varies substantially according to the type, complexity, novelty and intended use of a product candidate. The cost of clinical trials may vary significantly over the life of a program as a result of a variety of factors, including:

- the number of subjects who participate in the trials;
- the number and locations of sites included in the trials;
- the length of time required to enroll trial participants;
- the duration of subject follow-up;
- the costs of producing supplies of the product candidates needed for clinical trials and regulatory submissions;
- the efficacy and safety profile of the product candidate; and
- the costs and timing of, and the ability to secure, regulatory approvals.

We have not received FDA or foreign regulatory marketing approval for any of our product candidates that are in development. Our strategy includes entering into alliances with third parties to participate in the development and commercialization of some of our product candidates. In situations in which third parties have decision-making authority over the preclinical development or clinical trial process for a 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 how such arrangements would affect our development plans or capital requirements. As a result, 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 development-stage product candidates.

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, and professional fees for consulting, legal and accounting services.

Cost of Product Sales

Cost of product sales are those costs related directly to the sale of Inversine and are principally comprised of cost of goods sold, FDA product and establishment fees, distribution expenses, product royalty obligations and product liability insurance.

Interest Income

Interest income consists of interest earned on our cash, cash equivalents and short-term investments.

Interest Expense

Interest expense consists of interest incurred on our indebtedness, which has been primarily to finance equipment, office furniture and fixtures.

Income Taxes

We generated net income for the year ended December 31, 2006 due primarily to the recognition of revenue derived under our agreement with AstraZeneca. We have incurred net operating losses for each other year since inception and consequently have not paid federal, state or foreign income taxes in any period. As of June 30, 2007, we had net operating loss carryforwards of $105.4 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, 2007. 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 on November 30, 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.

Results of Operations

Three Months ended June 30, 2007 and 2006

Net Revenue

Net revenue increased by $2.3 million to $2.8 million for the three months ended June 30, 2007, from $589,000 for the comparable three-month period in 2006. The increase was primarily attributable to an increase of $2.3 million in revenue derived under our agreement with AstraZeneca for the 2007 period to $2.6 million, as compared to $313,000 for the second quarter of 2006. The revenue derived under our agreement with AstraZeneca for the 2007 period consists of $2.1 million in research fee revenue for services rendered by us to AstraZeneca pursuant to an agreed research plan for the preclinical research collaboration that we and AstraZeneca are conducting and recognition of $563,000 of the $10.0 million initial fee that we received in February 2006. In 2006, based on the terms of our agreement with AstraZeneca, we deferred recognition of $5.0 million of the initial fee, which we allocated to the AZD3480 (TC-1734) license grants, and any research fee revenue until AstraZeneca made its determination in December 2006 to proceed with further development of AZD3480 (TC-1734). As a result, we did not recognize any of the deferred portion of the initial fee or any research fee revenue in the second quarter of 2006.

In future periods, we are eligible to receive research fees, license fees and milestone payments under our collaboration agreement with AstraZeneca. The amount of research fees, license fees and milestone payments will depend on the extent of our research activities and the timing and achievement of development, regulatory and first commercial sale milestone events. We are also eligible in future periods to receive milestone payments under our alliance agreement with GlaxoSmithKline. The amount of milestone payments will depend on the success of our 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.

The increase in revenue derived under our agreement with AstraZeneca for the three months ended June 30, 2007 was partially offset by a decrease in grant revenue. As a result of the timing of our activities in connection with our subcontract under the grant awarded to The California Institute of Technology by NIDA to fund research on innovative NNR-based approaches to the development of therapies for smoking cessation, we recognized no grant revenue for the 2007 period, as compared to $146,000 for the three months ended June 30, 2006. The grant revenue for the 2006 period related to work performed under the cooperative agreement awarded to us in 2003 by NIST through its Advanced Technology Program, or ATP, to fund the development of sophisticated molecular simulation software. The term of the ATP award expired September 30, 2006. Based on the planned timing of our activities in connection with the NIDA grant, we do not anticipate generating further grant revenue during 2007.

Net sales of Inversine increased by $74,000 to $204,000 for the three months ended June 30, 2007, from $131,000 for the comparable three-month period in 2006. We believe that the substantial majority of Inversine sales are derived from prescriptions written by a very limited number of physicians. If any of these physicians were to change their prescribing habits, it would likely cause sales of Inversine to decrease. We do not promote sales of Inversine.

Research and Development Expenses

Research and development expenses increased by $4.5 million to $9.1 million for the three months ended June 30, 2007, from $4.6 million for the comparable three-month period in 2006. The increase in research and development expenses reflects progress in our pipeline of product candidates and increased activity in the a4ß2 research collaboration with AstraZeneca. In particular, the higher research and development expenses reflect an increase of $2.9 million, to $3.9 million, in contracted research and development services, which were principally attributable to formulation and clinical trial material production activities and pharmacology and toxicology studies conducted for our product candidates TC-5214, TC-5619 and TC-6499 and research activities in our preclinical programs. The higher research and development expenses also reflect an increase of $1.6 million, to $5.2 million, in occupancy, salary and benefit, recruitment, service, supply and infrastructure costs incurred in connection with increased research and development activity.

We expect that our research and development expenses will increase for future periods in and after 2007 as we expand our clinical trial activity, as our product candidates in development for depression and anxiety and TC-5619 and other product candidates arising from our a7 NNR program advance through the development cycle, as we initiate and progress activities under our alliance agreement with GlaxoSmithKline, as product candidates that arise out of our preclinical research collaboration with AstraZeneca progress and as we invest in additional product opportunities and research programs and expand our research and development infrastructure. We are eligible to receive research fees from AstraZeneca in connection with our activities in our preclinical research collaboration and success-based milestone payments from GlaxoSmithKline as we advance product candidates through preclinical and clinical development in our alliance.

General and Administrative Expenses

General and administrative expenses increased by $1.3 million to $2.6 million for the three months ended June 30, 2007, from $1.3 million for the comparable three-month period in 2006. The increase was primarily due to an increase in stock-based compensation expense, a non-cash item, of $1.4 million. The increase in stock-based compensation for the 2007 period resulted primarily from option grants to members of our board of directors. Our board of directors did not receive any equity compensation in 2006.

Cost of Product Sales

Cost of product sales was $205,000 for the three months ended June 30, 2007, as compared to a credit balance of $22,000 for the comparable three-month period in 2006. The increase of $227,000 in cost of product sales for the 2007 period primarily reflects the denial of our request for a waiver of FDA establishment fees for Inversine.

The FDA assesses product and establishment fees for marketed products each year for the twelve-month period beginning October 1. Payment is required in advance, but companies can request a waiver after making payment. In assessing waiver requests, the FDA considers whether the company is pursuing innovative drug products or technology and whether the fees would present a significant barrier to the company’s ability to develop, manufacture or market innovative drug products or technology. Prior to 2007, we had historically requested and received a waiver of the FDA fees with respect to Inversine.

The waiver of FDA fees that we have historically received with respect to Inversine has in the past resulted in lower cost of product sales. In March 2007, we received notice that the FDA, citing our increased revenue and cash assets, had denied our request for a waiver of the $206,000 in product and establishment fees that were assessed by the FDA and paid by us in 2006. In contrast, our request for a waiver of the product and establishment fees that were assessed by the FDA and paid by us in 2005 was granted by the FDA with respect to the establishment fees and denied with respect to the product fees. We do not expect that the FDA will grant a waiver of the product and establishment fees with respect to Inversine in future periods.

Interest Income

Interest income increased by $115,000 to $837,000 for the three months ended June 30, 2007, from $722,000 in the comparable three-month period in 2006. The increase was primarily attributable to a higher average cash balance during the 2007 period following our receipt of the $20.0 million payment from AstraZeneca in January 2007.

Interest Expense

Interest expense increased by $5,000 to $29,000 for the three months ended June 30, 2007, from $24,000 for the comparable three-month period in 2006. The increase was attributable to increased average indebtedness for the 2007 period, as compared to the 2006 period, resulting from a higher average principal balance under a loan facility used to finance laboratory, furniture and other capital equipment purchases following two borrowings against the facility in June 2007 and the expiration in April 2007 of the grace period for interest under a loan received from the City of Winston-Salem. As a result of the additional borrowings under our loan facility and the expiration of the grace period for interest under the City of Winston-Salem loan, we anticipate that we will have higher interest expense for future periods.

Accretion of Dividends on Preferred Stock

Accretion of dividends on our convertible preferred stock was $529,000 for the three months ended June 30, 2006. Upon completion of our initial public offering in April 2006, all of our outstanding shares of convertible preferred stock converted into shares of common stock and there was no further accretion of dividends to be recorded.

Six Months ended June 30, 2007 and 2006

Net Revenue

Net revenue increased by $3.7 million to $4.9 million for the six months ended June 30, 2007, from $1.2 million for the comparable six-month period in 2006. The increase was primarily attributable to an increase of $3.7 million in revenue derived under our agreement with AstraZeneca for the 2007 period to $4.3 million, as compared to $583,000 for the first six months of 2006. The revenue derived under our agreement with AstraZeneca for the 2007 period consists of $3.2 million in research fee revenue for services rendered by us to AstraZeneca pursuant to an agreed research plan for the preclinical research collaboration that we and AstraZeneca are conducting and recognition of $1.1 million of the $10.0 million initial fee that we received in February 2006.

Research and Development Expenses

Research and development expenses increased by $5.9 million to $15.3 million for the six months ended June 30, 2007, from $9.4 million for the comparable six-month period in 2006. The increase in research and development expenses reflects an increase of $3.3 million, to $5.4 million, in contracted research and development services. The increase in contracted research and development services was principally attributable to formulation and clinical trial material production activities and pharmacology and toxicology studies conducted for our product candidates TC-5214, TC-5619 and TC-6499 and clinical trial costs related to the ongoing Phase II trial of TC-2696, which we initiated in December 2006, as well as research activities in our preclinical programs. The increase in contracted research and development services was partially offset by reduced expenses required for TC-2216 and, following completion of our Phase II TRIDMAC trial late last year, mecamylamine hydrochloride. The increase in research and development expenses also reflects an increase of $2.6 million, to $9.8 million, in occupancy, salary and benefit, recruitment, service, supply and infrastructure costs incurred in connection with increased research and development activity.

General and Administrative Expenses

General and administrative expenses increased by $1.5 million to $4.0 million for the six months ended June 30, 2007, from $2.5 million for the comparable six-month period in 2006. The increase was primarily due to an increase in stock-based compensation expense, a non-cash item, of $1.4 million as a result of compensatory stock option grants and increased occupancy, salary and benefit expenses and costs associated with being a public company.

Cost of Product Sales

Cost of product sales increased by $202,000 to $371,000 for the six months ended June 30, 2007, from $169,000 for the comparable six-month period in 2006. The increase is primarily due to the denial of our request for a waiver of FDA establishment fees for Inversine, which we had received in the prior year.

Interest Income

Interest income increased by $679,000 to $1.7 million for the six months ended June 30, 2007, from $1.0 million in the comparable six-month period in 2006. The increase was attributable to a higher average cash balance during the 2007 period following completion of our initial public offering in April 2006 in which we received net proceeds of $40.8 million and our receipt of a $20.0 million payment from AstraZeneca in January 2007.

Interest Expense

Interest expense decreased by $5,000 to $43,000 for the six months ended June 30, 2007, from $48,000 for the comparable six-month period in 2006 as a result of a lower average principal balance under a loan facility used to finance laboratory and other capital equipment purchases.

Accretion of Dividends on Preferred Stock

Accretion of dividends on our convertible preferred stock was $3.3 million for the six months ended June 30, 2006. Upon completion of our initial public offering in April 2006, all of our outstanding shares of convertible preferred stock converted into shares of common stock and there was no further accretion of dividends to be recorded.

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 of our common stock at a price of $9.00 per share. After deducting underwriting discounts and commissions and other offering expenses, our net proceeds from the offering were $40.8 million. We have also received additional funding from initial fees and payments for research and development services under collaboration 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 December 2005, we entered into a collaboration agreement with AstraZeneca relating to AZD3480 (TC-1734). In January 2006, the agreement became effective and we began conducting research for which we are eligible to receive research fees. AstraZeneca paid us an initial fee of $10.0 million in February 2006 and an additional $20.0 million in January 2007 as a result of its determination to proceed with further development of AZD3480 (TC-1734) following the completion of additional clinical and non-clinical studies that it conducted during 2006.

We have a loan facility with R.J. Reynolds Tobacco Holdings, Inc. that we entered into originally in May 2002 and that has been subsequently amended. Under the facility as most recently amended in June 2006, we were permitted to borrow an additional $2.0 million on or before June 30, 2007. We borrowed the additional $2.0 million in two tranches in June 2007. The first June 2007 tranche is in the amount of $1,600,000, accrues interest at 7.36% and is repayable in monthly payments of $39,000 through the maturity date of June 1, 2011. The second June 2007 tranche is in the amount of $400,000, accrues interest at 7.48% and is repayable in monthly payments of $10,000 through the maturity date of June 1, 2011. All borrowings under the facility are secured by specified tangible fixed assets determined sufficient by the lender at the time of disbursement. As of June 30, 2007, the outstanding principal balance under the loan facility was $2.7 million.

In April 2002, we received a $500,000 loan from the City of Winston-Salem. Under the terms of this borrowing, there was no interest accrual or payment due until the fifth anniversary of the loan. 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, 2007, the outstanding principal balance under the loan was $476,000.

Following the end of the second quarter, in July 2007, we entered into a product development and commercialization agreement and related stock purchase agreement with GlaxoSmithKline pursuant to which GlaxoSmithKline made an initial payment to us of $20.0 million and purchased 1,275,502 shares of our common stock for an aggregate purchase price of $15.0 million.

Our cash, cash equivalents and short-term investments were $63.0 million as of June 30, 2007 and $54.2 million as of December 31, 2006.

Cash Flows

Net cash provided by operating activities was $8.1 million for the six months ended June 30, 2007, as compared to net cash used in operating activities of $1.3 million for the comparable six-month period in 2006, a difference of $9.3 million. Our net loss increased by $3.2 million to $13.1 million for the 2007 period, from $9.9 million in the 2006 period. The increased net loss was more than offset by adjustments for changes in working capital and non-cash charges for the 2007 period. The working capital adjustment that provided the largest source of cash for the 2007 period was a $21.1 million reduction in our accounts receivable asset balance, which was primarily due to our receipt of the $20.0 million payment from AstraZeneca in January 2007. For the 2006 period, our accounts receivable balance increased by $1.1 million. The difference also reflects an increase in stock compensation expense of $1.6 million, to $1.9 million for the 2007 period, from $300,000 for the 2006 period. The working capital adjustment that provided the largest source of cash for the 2006 period was a $10.5 million increase in our deferred license fee revenue liability balance, which was primarily due to our receipt of the $10.0 million initial fee from AstraZeneca in January 2006. For the 2007 period, we recognized $1.1 million of our deferred license fee revenue liability balance as revenue.

Net cash used in investing activities was $9.0 million for the six months ended June 30, 2007, as compared to $12.8 million for the comparable six-month period in 2006. The cash used in investing activities primarily reflects the level of our cash that we allocate to, and the timing of purchases and maturities of, our short term investments. For the 2007 period, we purchased $1.1 million of equipment and furniture, an increase of $260,000 over our fixed asset purchases for the 2006 period. The increased purchases were primarily in connection with the expansion of our leased facilities effective in January 2007.

Net cash provided by financing activities was $1.8 million for the six months ended June 30, 2007, as compared to $40.6 million for the comparable six-month period in 2006. The difference was primarily attributable to our receipt of $40.8 million in net proceeds as a result of the completion in April 2006 of our initial public offering, partially offset by $1.6 million of incremental borrowings under our loan facility in the first half of 2007, as compared to the first half of 2006, and reduced debt service payments in the first half of 2007 as a result of a lower average principal balance on our loan facility.

Funding Requirements

As of June 30, 2007, we had an accumulated deficit of $149.2 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:

- whether we elect to advance TC-5214 into clinical development as an augmentation treatment for major depression or instead to conduct Phase III clinical development of TRIDMAC;

- the scope, progress, results and cost of preclinical development and laboratory testing and clinical trials;
- the timing, receipt and amount of milestone and other payments from AstraZeneca, GlaxoSmithKline and potential future collaborators;
- the success of our research and development activities under our alliance agreement with GlaxoSmithKline;
- the costs, timing and outcome of regulatory review;
- 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 of establishing sales and marketing functions and of establishing arrangements for manufacturing;
- the rate of technological advancements for the indications that we target;
- our ability to establish strategic alliances and licensing or other arrangements on terms favorable to us;
- the costs to satisfy our obligations under existing and potential future alliances;
- 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 research and development activities. In particular, we anticipate that we will incur additional costs resulting from the expansion and lease of our laboratory space, which became effective January 2007. 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 June 2009. 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 or strategic alliance and licensing arrangements. Additional equity or debt financing, or strategic alliance and 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, reduce our planned commercialization efforts, 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.

Recent Accounting Pronouncements

In July 2007, the Emerging Issues Task Force reached consensus on 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. EITF 07-3 concluded that non-refundable 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. EITF 07-3 is effective for new contracts entered into during fiscal years beginning after December 15, 2007, including interim periods within those fiscal years. We are currently evaluating the expected impact of the provisions of EITF 07-3 on our financial results, if any.

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 short-term investments in a variety of securities of high credit quality. As of June 30, 2007, we had cash, cash equivalents and short-term investments of $63.0 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, 2007 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, with respect to one completed clinical trial, 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 were to strengthen or weaken by 10% against the exchange rate as of June 30, 2007, 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, 2007 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1A. Risk Factors

Set forth below are risk factors in addition to those previously disclosed in Item 1A of Part I of our Annual Report on Form 10-K for the year ended December 31, 2006.

If GlaxoSmithKline exercises any of the exclusive options that may be triggered under our alliance agreement, with respect to TC-2696 and TC-6499 or any other product candidates that are discovered and developed in the alliance, the successful development and commercialization of the licensed product candidates will depend substantially on GlaxoSmithKline.

In July 2007, we entered into a product development and commercialization agreement with GlaxoSmithKline to discover, develop and market product candidates that selectively target specified NNR subtypes for five therapeutic focus areas. The therapeutic focus areas of the alliance are pain, smoking cessation, obesity, addiction and Parkinson's disease. Prior to entering into the agreement, we did not have a history of working together with GlaxoSmithKline and we cannot predict the success of the alliance.

Under the agreement, if we achieve clinical proof of concept for a lead product candidate for a particular therapeutic focus area, GlaxoSmithKline would have an exclusive option for an exclusive license to the 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 were to exercise its option and pay 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. In that event, we would have limited control over the amount and timing of resources that GlaxoSmithKline dedicates to the development of our licensed product candidates. Our ability to generate further revenue from the alliance would depend on GlaxoSmithKline's abilities to establish the safety and efficacy of our product candidates, to obtain regulatory approvals and to achieve market acceptance.

If we do not achieve specified discovery and development events in our alliance with GlaxoSmithKline for which we would be entitled to receive milestone payments, our research and development activities in the alliance may not be self-funding and we may need to utilize other financial resources to conduct the activities, which could adversely affect our ability to advance the development of our other product candidates.

Under our agreement with GlaxoSmithKline, we have agreed, at our sole expense, to continue to develop TC-2696, our product candidate for acute post-operative pain, through completion of the ongoing Phase II clinical trial in third molar extraction patients and, if successful, into and through another Phase II clinical trial in a separate pain population designed to establish clinical proof of concept under the agreement. We have also agreed, at our sole expense, to seek to discover product candidates that target specified NNR subtypes for each therapeutic focus area of the alliance and to develop the most promising product candidate for each therapeutic focus area through a Phase II proof of concept clinical trial. We are eligible to receive milestone payments from GlaxoSmithKline upon the achievement of specified discovery, development, regulatory and commercial events with respect to TC-2696, our other product candidate in development for pain, TC-6499, and other product candidates that are discovered and developed in the alliance. If we do not successfully achieve the specified milestone events, we may not receive payments in the alliance sufficient to fund our research and development obligations in the alliance or otherwise to realize the expected benefit from the alliance. If that occurs, we may have to allocate available financial resources to our obligations in the alliance in lieu of employing those resources to advance the development of our product candidates outside of the alliance that may ultimately prove to have greater commercial potential.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Initial Public Offering and Use of Proceeds from Sales of Registered Securities

On April 18, 2006, we sold 5,000,000 shares of our common stock in our initial public offering at a price to the public of $9.00 per share. As part of the offering, we granted the underwriters an over-allotment option to purchase up to an additional 750,000 shares of our common stock from us, which was not exercised. The offer and sale of all of the shares in the offering were registered under the Securities Act of 1933, as amended, pursuant to a registration statement on Form S-1 (File No. 333-131050), which was declared effective by the SEC on April 11, 2006.

After deducting underwriting discounts and commissions of $3.2 million and other offering expenses of $1.1 million payable by us in connection with the offering, our net proceeds from the offering were $40.8 million. Between April 11, 2006 and June 30, 2007, we used approximately $24.6 million of the net proceeds to fund our operating activities, including activities relating to the development of our clinical and preclinical product candidates, and for other general corporate purposes. During this period, our research and development expenses comprised approximately 78% of our operating expenses. The remaining approximately $16.2

million in net proceeds have been deposited in highly rated financial institutions in the United States. We have not used any of the net proceeds of the offering to make payments, directly or indirectly, to any of our directors or officers, to any of their associates, to any person owning ten percent or more of any class of our equity securities, or to any of our affiliates.

There has been no material change in our planned use of proceeds from our initial public offering as described in our final prospectus filed with the SEC pursuant to Rule 424(b).

Unregistered Sales of Securities; Issuer Purchases of Equity Securities

On May 29, 2007, we issued 5,333 shares of our common stock to a single entity upon the exercise of two stock options. These options represent grants that were made under our non-employee director compensation program as existed prior to completion of our initial public offering. The entity exercising the options was affiliated with a member of our board of directors at the time of grant and was designated by the director to receive the options, in lieu of the director. The exercise price for each option was $0.075 per share, representing an aggregate purchase price for all shares purchased of $399.98. The shares of common stock issued upon exercise were offered and sold in reliance on an exemption from registration under Section 4(2) of the Securities Act of 1933, as amended, based on the recipient's sophistication in financial matters and access to material information and our understanding that the recipient qualified as an "accredited investor," as that term is defined by the rules and regulations of the SEC.

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

The following matters were submitted to a vote of our stockholders at our 2007 Annual Meeting of Stockholders held on June 13, 2007 and approved by the requisite vote of our stockholders as follows:

1. Election of Charles A. Blixt, Alan W. Dunton, M.D. and Ralph Snyderman, M.D. to our board of directors as Class I directors to serve for a term to expire at the 2010 annual meeting of stockholders, with each director to hold office until his successor is duly elected and qualified or until his death, retirement, resignation or removal.

	Number of Shares	
Nominee	**For**	**Withheld**
Charles A. Blixt	17,822,450	5,755
Alan W. Dunton, M.D.	17,726,556	101,649
Ralph Snyderman, M.D.	17,824,410	3,795

2. Ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2007.

Number of Shares		
For	**Against**	**Abstain**
17,826,805	1,300	100

There were 19,143,979 shares of our common stock eligible to be voted at the meeting as of the record date of April 17, 2007.

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 8, 2007

/s/ J. Donald deBethizy

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

Date: August 8, 2007

/s/ Alan A. Musso

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

EXHIBIT INDEX

Exhibit Number	Description
10.1	2007 Declaration of Amendment to the Targacept, Inc. 2006 Stock Incentive Plan.
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 10.1

2007 Declaration of Amendment to the
Targacept, Inc. 2006 Stock Incentive Plan

THIS 2007 DECLARATION OF AMENDMENT to the Targacept, Inc. 2006 Stock Incentive Plan (this "**Declaration of Amendment**") is executed this 14th day of June 2007 by TARGACEPT, INC., a Delaware corporation (the "**Company**").

RECITALS:

WHEREAS, pursuant to Section 15(a) of the Targacept, Inc. 2006 Stock Incentive Plan (the "**Plan**"), the Company's Board of Directors has approved the amendment to the Plan set forth below.

NOW, THEREFORE, IT IS DECLARED, that:

1. Section 1(v) of the Plan is hereby amended by deleting it in its entirety and replacing it with the following:

"(v) Fair Market Value per share of the Common Stock shall be established in good faith by the Administrator and, unless otherwise determined by the Administrator, the Fair Market Value shall be determined in accordance with the following provisions: (A) if the shares of Common Stock are listed for trading on the New York Stock Exchange, the American Stock Exchange or the Nasdaq Stock Market, the Fair Market Value shall be the closing sales price per share of the shares on the New York Stock Exchange, the American Stock Exchange or the Nasdaq Stock Market (as applicable) on the date an Option is granted or other determination is made (such date of determination being referred to herein as a "valuation date"), or, if there is no transaction on such date, then on the trading date nearest preceding the valuation date for which closing price information is available, and, provided further, if the shares are not listed for trading on the New York Stock Exchange, the American Stock Exchange or the Nasdaq Stock Market, the Fair Market Value shall be the average between the highest bid and lowest asked prices for such stock on the date of grant or other valuation date as reported on the Nasdaq OTC Bulletin Board Service or by the National Quotation Bureau, Incorporated or a comparable service; or (B) if the shares of Common Stock are not listed or reported in any of the foregoing, then the Fair Market Value shall be determined by the Administrator based on such valuation measures or other factors as it deems appropriate. Notwithstanding the foregoing, (i) with respect to the grant of Incentive Options, the Fair Market Value shall be determined by the Administrator in accordance with the applicable provisions of Section 20.2031-2 of the Federal Estate Tax Regulations, or in any other manner consistent with the Code Section 422; and (ii) Fair Market Value shall be determined in accordance with Section 409A to the extent required."

2. Sections 8(f)(i)(A) and 8(f)(i)(B) of the Plan are hereby amended by deleting them in their entirety and replacing them with the following:

"(A) Initial Options. An Initial Option shall vest and become exercisable with respect to one-third of the shares subject to the Option on the earlier of (w) the first anniversary of the date of grant or (x) the business day immediately preceding the date of the Corporation's annual meeting of stockholders that occurs in the calendar year immediately following the calendar year in

which the date of grant occurs, provided that the Nonemployee Director remains in service on such earlier date. An Initial Option shall vest and become exercisable with respect to the remaining two-thirds of the shares subject to the Option in pro rata quarterly installments over the second and third years following the date of grant so that an Initial Option will be vested and exercisable in full on the earlier of (y) the third anniversary of the date of grant or (z) the business day immediately preceding the date of the Corporation's annual meeting of stockholders that occurs in the third calendar year following the calendar year in which the date of grant occurs, provided that the Nonemployee Director remains in service as a Director during such periods.

(B) Annual Options. An Annual Option granted shall vest and become exercisable on the earlier of (i) the first anniversary of the date of grant or (ii) the business day immediately preceding the date of the Corporation's annual meeting of stockholders that occurs in the calendar year immediately following the calendar year in which the date of grant occurs, provided that the Nonemployee Director remains in service as a Director on such earlier date."

3. As expressly modified herein, all of the terms of the Plan shall continue in full force and effect.

IN WITNESS WHEREOF, this Declaration of Amendment is executed on behalf of Targacept, Inc. as of the day and year first above written.

TARGACEPT, INC.

By: /s/ J. Donald deBethizy
J. Donald deBethizy
President and Chief Executive Officer

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)) 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) 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

c) 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 8, 2007

By: /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)) 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) 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

c) 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 8, 2007

By: /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, 2007 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:

(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 8, 2007

By: /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, 2007 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:

(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 8, 2007

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