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

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): August 5, 2009

TARGACEPT, INC.
(Exact name of registrant as specified in its charter)

Delaware	**000-51173**	**56-2020050**
(State or other jurisdiction of incorporation)	**(Commission File Number)**	**(IRS Employer Identification No.)**

200 East First Street, Suite 300
Winston-Salem, North Carolina **27101**
(Address of principal executive offices) **(Zip Code)**

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

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 2.02 Results of Operations and Financial Condition.

On August 5, 2009, Targacept, Inc. issued a press release announcing its financial results for the second quarter ended June 30, 2009. The full text of the press release is furnished as Exhibit 99.1 to this Current Report on Form 8-K.

The information in this Current Report on Form 8-K (including Exhibit 99.1) shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in such a filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

The following exhibit is furnished with this report:

Exhibit Number	Description
99.1	Press release dated August 5, 2009

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 hereunto duly authorized.

TARGACEPT, INC.

Date: August 5, 2009

/s/ Alan A. Musso

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

EXHIBIT INDEX

Exhibit Number	Description
99.1	Press release dated August 5, 2009

Exhibit 99.1

Targacept Reports Second Quarter 2009 Financial Results

Winston-Salem, North Carolina, August 5, 2009 – Targacept, Inc. (NASDAQ: TRGT), a clinical-stage biopharmaceutical company developing a new class of drugs known as NNR Therapeutics™, today reported its financial results for the second quarter ended June 30, 2009.

Targacept reported a net loss of $9.7 million for the second quarter of 2009, compared to a net loss of $6.8 million for the second quarter of 2008. For the six months ended June 30, 2009, Targacept reported a net loss of $14.3 million, compared to a net loss of $12.6 million for the corresponding period of 2008. As of June 30, 2009, cash, cash equivalents and short-term investments totaled $73.1 million. In July 2009, after the end of the second quarter, Targacept received a $10.0 million milestone payment from AstraZeneca. The milestone payment will be reflected in Targacept's third quarter 2009 financial results.

"Our recent announcements regarding TC-5214 and AZD3480 (TC-1734) reflect important milestones for Targacept and underscore the potential of NNR Therapeutics in the treatment of various CNS disorders," said J. Donald deBethizy, Ph.D., Targacept's President and Chief Executive Officer. "We are delighted with the robust data from our Phase 2b study of TC-5214 as an augmentation therapy for major depressive disorder and expect the positive results to facilitate our goal of identifying a strategic partner to assist in its global development and planned commercialization. We were also pleased to report AstraZeneca's plans to continue development of AZD3480 as a treatment for attention deficit/hyperactivity disorder and to strengthen our financial position with the $10 million milestone payment that we received from AstraZeneca in July."

Recent Highlights and Program Updates:

Targacept's TC-5214 Program

- Reported positive top-line results in July 2009 from a Phase 2b clinical trial of TC-5214 as an augmentation therapy for major depressive disorder, or MDD, in subjects who did not respond adequately to first-line treatment with a representative SSRI medication;
    - the result on the primary outcome measure, mean change between treatment (TC-5214 + citalopram) and placebo (placebo + citalopram) from baseline on the Hamilton Rating Scale for Depression-17, was highly statistically significant in favor of TC-5214 ($p < 0.0001$) on an intent to treat basis; and
    - the results on all of the trial's secondary efficacy measures, including assessments of depression, irritability, disability, cognition, severity of illness and global improvement, were also highly statistically significant in favor of TC-5214 on an intent to treat basis;
- Targacept plans to present detailed results from the trial on October 15, 2009 at the Nicotinic Acetylcholine Receptors as Therapeutic Targets Satellite Symposium in Lincolnshire, Illinois, which is scheduled to occur prior to the annual Society for Neuroscience meeting in Chicago;
- Targacept expects Phase 3 clinical development of TC-5214 to be initiated in the second quarter of 2010, following planned discussions with the FDA and the European Medicines Agency and the production of clinical trial material;

- Targacept has determined to allocate resources to preparations for Phase 3 MDD development of TC-5214 and not to continue a Phase 2 exploratory study of TC-5214 as an augmentation treatment for resistant hypertension initiated in the second quarter of 2009 in light of the favorable outcome of the completed MDD trial and slow enrollment in the resistant hypertension study;

AstraZeneca Collaboration and Cognitive Disorders

AZD3480 (TC-1734)

- Reported statistically significant top-line results in favor of AZD3480 on the primary outcome measure and a number of secondary outcome measures in a Phase 2 study in adults with attention deficit/hyperactivity disorder, or ADHD;
- Announced that AstraZeneca plans to conduct further development of AZD3480 as a treatment for ADHD, including clinical studies to include both younger subjects and adults;
- Received a $10.0 million milestone payment from AstraZeneca in July 2009 as a result of the achievement of the objective in the Phase 2 study of adults with ADHD;

TC-5619

- Continued planning for the expected initiation later in 2009 of a Phase 2 clinical study of TC-5619, a product candidate highly selective for the alpha7 NNR, in cognitive dysfunction in schizophrenia or potentially one or more other conditions characterized by cognitive impairment; following the completion of the planned Phase 2 study, AstraZeneca would have the right to license TC-5619;

AZD1446 (TC-6683)

- Announced that AstraZeneca plans to continue the development of AZD1446 (TC-6683) as a treatment for Alzheimer's disease; AZD1446 is a selective alpha4beta2 NNR agonist that is currently in Phase 1 clinical development;

GlaxoSmithKline Alliance

- Continued to progress multiple product candidates through preclinical studies in the therapeutic focus areas of our alliance with GlaxoSmithKline;

Grant from Michael J. Fox Foundation

- Awarded a grant of over $600,000 from The Michael J. Fox Foundation for Parkinson's Research designed to fund preclinical research to test the potential of NNR Therapeutics to address Levodopa-induced abnormal involuntary movements, known as dyskinesias; and

Corporate Developments

- Recognized as one of the Top 30 Companies in The Scientist magazine's "Best Places to Work in Industry" 7th annual survey, ranking 23rd overall; the survey was completed by almost 3,000 scientists representing 238 life sciences companies worldwide.

Financial Results

Targacept reported a net loss of $9.7 million for the second quarter of 2009, compared to a net loss of $6.8 million for the second quarter of 2008. The results included non-cash, stock-based compensation charges of $572,000 and $525,000 for the second quarter of 2009 and 2008, respectively. For the six months ended June 30, 2009, Targacept reported a net loss of $14.3 million, compared to a net loss of $12.6 million for the corresponding period in 2008. The results included non-cash, stock-based compensation charges of $1.1 million and $1.0 million for the six months ended June 30, 2009 and 2008, respectively.

Net operating revenues totaled $2.8 million for the second quarter of 2009, compared to $5.2 million for the second quarter of 2008. The lower net operating revenues for the 2009 period were principally attributable to a decrease of $1.5 million in collaboration research and development revenue and a decrease of $715,000 in milestones and license fees from collaborations revenue. The decrease in collaboration research and development revenue reflected reduced services rendered by us in our preclinical research collaboration with AstraZeneca as a result of progress previously made towards meeting the objectives of the research plan. The decrease in milestones and license fees from collaborations revenue was primarily attributable to achievement of a milestone event related to progress in preclinical programs under our alliance agreement with GlaxoSmithKline during the 2008 period.

For the six months ended June 30, 2009, net operating revenues totaled $9.0 million, compared to $9.4 million for the corresponding period in 2008. The lower net operating revenues for the 2009 period were primarily attributable to a decrease of $2.2 million in collaboration research and development revenue, partially offset by an increase of $1.8 million in milestones and license fees from collaborations revenue. The decrease in collaboration research and development revenue reflected reduced services rendered by us in our preclinical research collaboration with AstraZeneca as a result of progress previously made toward meeting the objectives of the research plan. The increase in milestones and license fees from collaborations revenue was primarily attributable the achievement of milestone events under our alliance agreement with GlaxoSmithKline related to progress in preclinical programs with aggregate payments in excess of those received upon achievement of milestone events during the 2008 period. The payments that were recognized as milestone revenue for the 2009 period were achieved in the first quarter of 2009.

Research and development expenses totaled $11.0 million for the second quarter of 2009, compared to $10.5 million for the second quarter of 2008. The higher research and development expenses for the 2009 period were principally attributable to increases of $596,000 in costs incurred for third-party research and development services in connection with our clinical-stage product candidates and $215,000 in costs incurred for third-party research and development services in connection with our preclinical programs, primarily in the therapeutic focus areas of our alliance with GlaxoSmithKline, partially offset by a decrease of $280,000 in supply and other non-program specific research and development costs resulting from planned budget reductions for 2009. For the 2009 period, third-party research and development costs in connection with our clinical-stage product candidates totaled $3.2 million, with the highest component being costs incurred for TC-5214.

For the six months ended June 30, 2009, research and development expenses totaled $20.5 million, compared to $19.6 million for the corresponding period in 2008. The higher research and development expenses were principally attributable to increases of $800,000 in costs incurred for third-party research and development services in connection with our preclinical programs, primarily in the therapeutic focus areas of our alliance with GlaxoSmithKline, and $379,000 in costs incurred for third-party research and development services in connection with our clinical-stage product candidates, partially offset by a decrease of

$234,000 in supply and other non-program specific research and development costs resulting from planned budget reductions for 2009. For the 2009 period, third-party costs in connection with our clinical-stage product candidates totaled $5.4 million, with the highest component being costs incurred for TC-5214.

General and administrative expenses totaled $1.4 million for the second quarter of 2009, compared to $1.9 million for the second quarter of 2008. For the six months ended June 30, 2009, general and administrative expenses totaled $2.8 million, compared to $3.6 million for the corresponding period in 2008. The lower general and administrative expenses for both 2009 periods were principally attributable to a decrease in professional fees, patent-related costs and travel-related expenses.

Interest income, net of interest expense, totaled $201,000 for the second quarter of 2009, compared to $631,000 for the second quarter of 2008. For the six months ended June 30, 2009, interest income, net of interest expense, totaled $503,000 million, compared to $1.5 million for the corresponding period in 2008. The decrease for both 2009 periods was attributable to lower short-term interest rates and a lower average cash and investment balance.

Update to 2009 Financial Guidance

Based on current operating plans:

- Targacept now expects net operating revenues for the year ending December 31, 2009 to be in the range of $22 million to $23 million, operating expenses for the year ending December 31, 2009 to be in the range of $48 million to $52 million and to have at least $59 million in cash, cash equivalents and short-term investments at December 31, 2009; this financial guidance includes both cash and non-cash revenue and expense items and does not include any amounts that Targacept might receive in the future if it were to establish a strategic alliance, collaboration, licensing or other arrangement with respect to TC-5214; and
- Targacept continues to expect that its current cash resources will be sufficient to meet its operating requirements at least through the first half of 2011, which assumes that the funds required for Phase 3 clinical development of TC-5214 would be obtained through a potential future strategic alliance, collaboration, licensing or other arrangement with respect to TC-5214.

Conference Call

As previously announced, Targacept will be hosting a conference call and webcast today, August 5, 2009, at 5:00 p.m. Eastern Daylight Time. The conference call may be accessed by dialing 866-730-5768 for domestic participants and 857-350-1592 for international callers (reference passcode 12179276). A replay of the conference call may be accessed beginning approximately two hours after the call and continuing at least through August 19, 2009 by dialing 888-286-8010 for domestic callers and 617-801-6888 for international callers (reference passcode 37510453).

A live audio webcast of the conference call will be accessible from the Investor Relations page of Targacept's website, www.targacept.com. To ensure a timely connection to the webcast, it is recommended that users register at least 15 minutes prior to the scheduled start time. An archived version of the webcast will also be available on the Investor Calendar section of the Investor Relations page of Targacept's website for at least two weeks following the call.

About Targacept

Targacept is a clinical-stage biopharmaceutical company that discovers and develops NNR Therapeutics™, a new class of drugs for the treatment primarily of central nervous system diseases and disorders. Targacept's product candidates selectively modulate neuronal nicotinic receptors that serve as key regulators of the nervous system to promote therapeutic effects and limit adverse side effects. Targacept has clinical-stage product candidates in development for major depressive disorder, attention deficit/hyperactivity disorder, Alzheimer's disease and cognitive dysfunction in schizophrenia, as well as multiple preclinical programs. Targacept also has a cognition-focused collaboration with AstraZeneca and a strategic alliance with GlaxoSmithKline. Targacept's news releases are available on its website at www.targacept.com.

Forward-Looking Statements

This press release includes "forward-looking statements" made under the provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include, without limitation, statements that are not purely historical in nature regarding: the progress, scope or duration of the development of TC-5214, AZD3480, AZD1446, TC-5619 or any of Targacept's other product candidates, such as the size, design, conduct or objective of any clinical trial, the timing for initiation or completion of or availability of results from any clinical trial or the indication(s) for which the product candidate may be developed; the benefits that may be derived from any Targacept product candidate; a strategic alliance, collaboration, licensing or other arrangement with respect to TC-5214; any payments that AstraZeneca or GlaxoSmithKline may make to Targacept; or Targacept's plans, expectations or future operations, financial position, revenues, costs or expenses. Actual results may differ materially from those expressed or implied by forward-looking statements as a result of various important factors, including, without limitation, Targacept's critical accounting policies and risks and uncertainties relating to: Targacept's ability to establish a strategic alliance, collaboration or licensing or other arrangement with respect to TC-5214 and the time and complexity involved; Targacept's dependence on the success of its collaboration with AstraZeneca and its alliance with GlaxoSmithKline; the significant control that AstraZeneca has over the development of AZD3480 and AZD1446, including as to the conduct of any further development of AZD3480 in ADHD or AZD1446 in Alzheimer's disease and the scope and design of any future clinical trial of AZD3480 or AZD1446; the conduct and results of clinical trials and non-clinical studies and assessments of TC-5214, AZD3480, AZD1446, TC-5619 and Targacept's other product candidates, including the performance of third parties engaged to execute such trials, studies and assessments, delays resulting from any changes to the applicable protocols and difficulties or delays in the completion of subject enrollment or data analysis; Targacept's reliance on a third party contract manufacturer for the production of clinical trial material for future development of TC-5214; and the timing of discussions with regulatory authorities and the timing and success of submission, acceptance and approval of regulatory filings. These and other risks and uncertainties are described in greater detail under the heading "Risk Factors" in Targacept's most recent Annual Report on Form 10-K and in other filings that it makes with the Securities and Exchange Commission. As a result of the risks and uncertainties, the results or events indicated by the forward-looking statements may not occur. Targacept cautions you not to place undue reliance on any forward-looking statement.

In addition, any forward-looking statement in this press release represents Targacept's views only as of the date of this press release and should not be relied upon as representing its views as of any subsequent date. Targacept disclaims any obligation to update any forward-looking statement, except as required by applicable law.

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TARGACEPT, INC
Unaudited Condensed Statements of Operations
(in thousands, except share and per share amounts)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2009	2008	2009	2008
Net operating revenues	$ 2,830	$ 5,156	$ 8,971	$ 9,432
Operating expenses:				
Research and development	11,049	10,518	20,544	19,599
General and administrative	1,377	1,894	2,848	3,585
Cost of product sales	258	178	485	381
Total operating expenses	12,684	12,590	23,877	23,565
Operating loss	(9,854)	(7,434)	(14,906)	(14,133)
Interest income, net	201	631	503	1,549
Net loss before income taxes	(9,653)	(6,803)	(14,403)	(12,584)
Income taxes	—	—	73	—
Net loss	$ (9,653)	$ (6,803)	$ (14,330)	$ (12,584)
Basic and diluted net loss per share	$ (0.39)	$ (0.27)	$ (0.57)	$ (0.52)
Weighted average common shares outstanding - basic and diluted	24,966,347	24,905,965	24,965,632	24,370,195

TARGACEPT, INC
Unaudited Condensed Balance Sheets
(in thousands)

	June 30, 2009	December 31, 2008
Cash, cash equivalents and short-term investments	$ 73,112	$ 88,363
Collaboration receivables and other current assets	3,177	3,603
Property and equipment, net	5,584	6,401
Other assets, net	176	184
Total assets	$ 82,049	$ 98,551
Current liabilities	$ 12,808	$ 13,792
Noncurrent liabilities	25,005	27,386
Total stockholders' equity	44,236	57,373
Total liabilities and stockholders' equity	$ 82,049	$ 98,551