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): February 12, 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** **(Address of principal executive offices)**	**27101** **(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 February 12, 2009, Targacept, Inc. issued a press release announcing its financial results for the fourth quarter and year ended December 31, 2008. 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 February 12, 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: February 12, 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 February 12, 2009

Exhibit 99.1

Targacept Reports Fourth Quarter and 2008 Financial Results

Winston-Salem, North Carolina, February 12, 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 fourth quarter and year ended December 31, 2008.

Targacept reported a net loss of $5.4 million for the fourth quarter of 2008, compared to a net loss of $7.6 million for the fourth quarter of 2007. For the year ended December 31, 2008, Targacept reported a net loss of $25.7 million, compared to a net loss of $28.1 million for 2007. As of December 31, 2008, cash, cash equivalents and short-term investments totaled $88.4 million.

“We remain focused on the prudent management of our financial resources as we execute on our business objectives and build upon our leadership position in the NNR field,” said J. Donald deBethizy, Ph.D., Targacept’s President and Chief Executive Officer. “We believe that, with over $88 million at year end, a diverse product pipeline, a dedicated and productive workforce and alliances with two leading global pharmaceutical companies, we are well positioned for future success.”

Recent Highlights:

TC-5214

- Ongoing Phase 2b clinical trial of TC-5214 as an augmentation therapy for major depressive disorder fully enrolled as of January 2009 with 586 subjects enrolled into the open label phase of the trial, which is projected to enable the randomization of over 220 subjects into the double blind, placebo controlled phase; top-line results from the trial are expected to be available in mid 2009;

AZD3480 (TC-1734)

- Completed enrollment in an exploratory Phase 2 clinical trial of AZD3480 (TC-1734) in adults with attention deficit/hyperactivity disorder, or ADHD;
- Pending completion of the adult ADHD study and other ongoing evaluations, a decision by AstraZeneca with respect to potential further development of AZD3480 in Alzheimer’s disease or ADHD is expected in the second quarter of 2009;

TC-5619

- Completed a Phase 1 single rising dose clinical trial and a Phase 1 multiple rising dose clinical trial of TC-5619, a highly selective alpha7 NNR-targeted product candidate that AstraZeneca has a future right to license; TC-5619, which is planned for development for cognitive dysfunction in schizophrenia or potentially one or more other conditions characterized by cognitive impairment, was generally well tolerated in both Phase 1 trials at doses at least 100 times greater than the doses expected to be evaluated in future trials;

Research Collaboration with AstraZeneca

- Completed preclinical activities necessary to enable AstraZeneca to advance AZD1446 (TC-6683), an alpha4beta2 NNR-targeted product candidate and the most advanced compound arising out of Targacept's preclinical research collaboration with AstraZeneca, into Phase 1 clinical development in December 2008, triggering a $2.0 million milestone payment from AstraZeneca;

GlaxoSmithKline Alliance

- Completed dosing in a Phase 1 multiple rising dose clinical trial of TC-6499, an alpha4beta2 NNR-targeted product candidate, with evaluation of data from the trial and prospects for future development ongoing;
- Achieved milestone events related to progress in Targacept's program in smoking cessation and preclinical program in pain in the fourth quarter of 2008, triggering $1.0 million in payments from GlaxoSmithKline; and

NNR Leadership

- Targacept scientists authored or co-authored peer-reviewed articles published in "Neuron," discussing the role of the alpha6 NNR in the control of dopaminergic neurons in novel transgenic animals, "The Journal of Pharmacology and Experimental Therapeutics" and "CNS Neuroscience and Therapeutics," discussing the differential pharmacologies and anti-depressant activity of TC-5214, and "Brain Research," discussing the role of the alpha7 NNR in anti-apoptosis and anti-inflammation.

Financial Results

Targacept reported a net loss of $5.4 million for the fourth quarter of 2008, compared to a net loss of $7.6 million for the fourth quarter of 2007. For the year ended December 31, 2008, Targacept reported a net loss of $25.7 million, compared to a net loss of $28.1 million for 2007. Net operating revenues increased in each of the 2008 periods compared to the corresponding 2007 periods, primarily as a result of revenues derived from Targacept's collaboration with AstraZeneca and alliance with GlaxoSmithKline. The increases in net operating revenues for both 2008 periods were offset by increased research and development expenses. The results included non-cash, stock-based compensation charges of $546,000 and $401,000 for the fourth quarters of 2008 and 2007, respectively, and $2.1 million and $2.7 million for the years ended December 31, 2008 and 2007, respectively.

Net operating revenues totaled $6.5 million for the fourth quarter of 2008, compared to $3.6 million for the fourth quarter of 2007. The higher net operating revenues were primarily attributable to an increase of $3.2 million in milestones and license fees from collaborations. The increase in milestones and license fees from collaborations resulted principally from a $2.0 million payment received from AstraZeneca upon initiation of Phase 1 clinical development of AZD1446 (TC-6683) and from $1.0 million in aggregate payments received from GlaxoSmithKline upon the achievement of milestone events related to progress in Targacept's smoking cessation and pain programs. The increase in milestones and license fees from collaborations was partially offset by a decrease of $374,000 in collaboration research and development revenue.

For the year ended December 31, 2008, net operating revenues totaled $20.1 million, compared to $11.6 million for 2007. The higher net operating revenues were principally attributable to an increase of $6.6 million in milestones and license fees from collaborations and an increase of $1.7 million in collaboration research and development revenue. The increase in milestones and license fees from collaborations reflected $2.2 million in aggregate payments received from AstraZeneca upon the achievement of milestone events related to the progression of AZD1446, $1.5 million in aggregate payments received from GlaxoSmithKline upon the achievement of milestone events related to progress in Targacept's smoking cessation and preclinical pain programs and recognition of an additional $2.9 million of deferred license fee revenue from payments received from GlaxoSmithKline and AstraZeneca in the second half of 2007.

Research and development expenses totaled $10.7 million for the fourth quarter of 2008, compared to $9.9 million for the fourth quarter of 2007. The higher research and development expenses were principally attributable to an increase of $1.5 million in salary and benefit expenses, temporary personnel, supply and infrastructure costs associated with increased activity in the programs in the therapeutic focus areas of the alliance with GlaxoSmithKline and with the progression of clinical-stage programs, an impairment charge of $220,000 on intangible assets related to the Company's product Inversine®, and an increase of $155,000 in costs for third-party preclinical research and development services incurred in connection with the programs in the therapeutic focus areas of the alliance with GlaxoSmithKline. These increases were partially offset by a decrease of $904,000 in costs for third-party research and development services incurred for clinical-stage product candidates. For the 2008 period, these third-party costs totaled $2.9 million and were incurred principally for TC-5214, TC-5619 and TC-6499.

For the year ended December 31, 2008, research and development expenses totaled $41.0 million, compared to $34.6 million for 2007. The higher research and development expenses reflected an increase of $4.3 million in salary and benefit expenses, temporary personnel, supply and infrastructure costs and an increase of $2.1 million in costs incurred for third-party research and development services. These increases resulted principally from increased activities in the therapeutic focus areas of the alliance with GlaxoSmithKline, which was formed in July 2007, and increased activities in the preclinical research collaboration with AstraZeneca as product candidates progressed to later stages of research. A greater number of clinical-stage programs and progression of these programs during 2008 also contributed to the increase in salary and benefit expenses, temporary personnel, supply and infrastructure costs.

General and administrative expenses totaled $1.5 million for the fourth quarter 2008, compared to $2.1 million for the fourth quarter of 2007. The lower general and administrative expenses were principally attributable to a reduction of $319,000 in employee bonuses. For the year ended December 31, 2008, general and administrative expenses totaled $6.5 million, compared to $8.0 million for 2007. The lower general and administrative expenses were primarily attributable to reductions of $627,000 in employee bonuses and $967,000 in stock-based compensation expense.

Interest income, net of interest expense, totaled $419,000 for the fourth quarter of 2008, compared to $1.0 million for the fourth quarter of 2007. For the year ended December 31, 2008, interest income, net of interest expense, totaled $2.5 million, compared to $3.7 million for 2007. The decrease for both 2008 periods was principally attributable to lower short-term interest rates and increased indebtedness under loan facilities used to finance equipment, furnishings, software and other fixed assets.

2009 Financial Guidance

Based on current operating plans and the existing alliance with GlaxoSmithKline and collaboration with AstraZeneca, Targacept expects net operating revenues for the year ending December 31, 2009 to be in the range of $14 million to $16 million, operating expenses for the year ending December 31, 2009 to be in the range of $46 million to $50 million, and to have a balance of at least $54 million in cash, cash equivalents and short-term investments at December 31, 2009. Targacept also expects that its current cash resources will be sufficient to meet its operating requirements at least through the first half of 2011. This financial guidance includes both cash and non-cash revenue and expense items and does not include amounts that Targacept could receive if any clinical development milestone events are achieved under its agreement with AstraZeneca or its agreement with GlaxoSmithKline.

Conference Call

As previously announced, Targacept will be hosting a conference call and webcast today, February 12, 2009, at 5:00 p.m. Eastern Standard Time. A live webcast of the conference call will be available on the Investor Relations page of Targacept's website, www.targacept.com. 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.

The conference call may be accessed by dialing 866-783-2137 for domestic participants and 857-350-1596 for international callers (reference passcode 29165052). A replay of the conference call may be accessed at least through February 26, 2009 by dialing 888-286-8010 for domestic callers and 617-801-6888 for international callers (reference passcode 48125665).

About Targacept

Targacept is a clinical-stage biopharmaceutical company that discovers and develops NNR Therapeutics™, a new class of drugs for the treatment 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 product candidates in development for Alzheimer's disease, cognitive dysfunction in schizophrenia, pain and major depressive disorder, 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

Statements in this press release that are not purely historical in nature constitute "forward-looking statements" made under the provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include, without limitation, statements regarding the timing for a decision by AstraZeneca as to whether to conduct further development of AZD3480 in Alzheimer's disease or ADHD, the progress or scope of the research and development of Targacept's product candidates, such as the number of subjects to be enrolled in any clinical trial, the timing for initiation or completion of or availability of results from any clinical trial or the indication for which any of its product candidates may be developed, 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 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, including as to whether to conduct any further development of AZD3480 in Alzheimer's disease or ADHD; the conduct and results of the ongoing clinical trial of AZD3480 in ADHD in adults and other studies ongoing being conducted by AstraZeneca, including the amount and

timing of resources that AstraZeneca devotes, the performance of third parties engaged to execute them and difficulties or delays in the completion of subject enrollment or data analysis; the risks that successful results in a particular clinical trial of AZD3480 may not be replicated in other clinical trials or that successful results in clinical trials of AZD3480 in a particular condition characterized by one degree of cognitive impairment may not be predictive of successful results in clinical trials of AZD3480 in a condition characterized by more severe cognitive impairment or in cognitive impairment resulting from a different condition; the conduct and results of clinical trials and non-clinical studies and assessments of TC-5214 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 ability to establish additional strategic alliances, collaborations and licensing or other arrangements on favorable terms; and the timing and success of submission, acceptance and approval of regulatory filings. These and other risks and uncertainties are described in greater detail under the 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.

Contacts:

Alan Musso, VP and CFO
Targacept, Inc.
Tel: (336) 480-2186
Email: alan.musso@targacept.com

Michelle Linn
Linnden Communications
Tel: (508) 362-3087
Email: michelle@linndencom.com

TARGACEPT, INC

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

	Three Months Ended December 31,		Year Ended December 31,	
	2008	2007	2008	2007
Net operating revenues	$ 6,518	$ 3,557	$ 20,085	$ 11,576
Operating expenses:				
Research and development	10,665	9,914	40,981	34,620
General and administrative	1,517	2,127	6,499	8,013
Cost of product sales	184	171	749	715
Total operating expenses	12,366	12,212	48,229	43,348
Operating loss	(5,848)	(8,655)	(28,144)	(31,772)
Interest income, net	419	1,009	2,483	3,699
Net loss	$ (5,429)	$ (7,646)	$ (25,661)	$ (28,073)
Basic and diluted net loss per share	$ (0.22)	$ (0.37)	$ (1.04)	$ (1.42)
Weighted average common shares outstanding - basic and diluted	24,964	20,484	24,664	19,721

TARGACEPT, INC

Unaudited Condensed Balance Sheets
(in thousands)

	December 31, 2008	December 31, 2007
Cash, cash equivalents and short-term investments	$ 88,363	$ 87,040
Collaboration receivables and other current assets	3,603	5,373
Property and equipment, net	6,401	6,115
Other assets, net	184	437
Total assets	$ 98,551	$ 98,965
Current liabilities	$ 13,792	$ 15,196
Noncurrent liabilities	27,386	32,185
Total stockholders' equity	57,373	51,584
Total liabilities and stockholders' equity	$ 98,551	$ 98,965