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 10, 2011

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 10, 2011, Targacept, Inc. issued a press release announcing its financial results for the fourth quarter and year ended December 31, 2010. 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 10, 2011

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 10, 2011

/s/ Alan A. Musso

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

EXHIBIT INDEX

Exhibit Number	Description
99.1	Press release dated February 10, 2011

Exhibit 99.1

Targacept Reports Fourth Quarter and 2010 Financial Results

Winston-Salem, North Carolina, February 10, 2011 – Targacept, Inc. (NASDAQ: TRGT), a clinical-stage biopharmaceutical company developing novel NNR Therapeutics™, today reported its financial results for the fourth quarter and year ended December 31, 2010.

Targacept reported a net loss of $2.2 million for the fourth quarter of 2010, compared to a net loss of $26.4 million for the fourth quarter of 2009. For the year ended December 31, 2010, Targacept reported net income of $10.9 million, compared to a net loss of $39.4 million for 2009. The improved financial results were principally due to the recognition into revenue for both 2010 periods of a portion of the $200.0 million upfront payment from AstraZeneca under a December 2009 collaboration and license agreement for Targacept's product candidate TC-5214 and to the recording of a corresponding license fee obligation to a third party of $16.0 million for the fourth quarter of 2009. As of December 31, 2010, cash and investments in marketable securities totaled $252.5 million.

"This year has the potential to be transformative for Targacept, as we progress the Phase 3 RENAISSANCE Program for TC-5214 with AstraZeneca," said J. Donald deBethizy, Ph.D., Targacept's President and Chief Executive Officer. "But the promise of Targacept extends well beyond TC-5214. Our clinical-stage pipeline of pharmacologically diverse NNR Therapeutics targets large unmet medical needs and presents multiple opportunities for clinical success. Our passionate and talented workforce, coupled with a strong cash position, have us poised to capitalize on the uniquely broad application of NNRs to build health and restore independence for patients suffering from nervous system diseases and disorders."

Recent Highlights and Program Updates:

TC-5214 (co-development with AstraZeneca)

- Execution continuing for the five Phase 3 clinical studies in the RENAISSANCE Program, which is designed to support the planned filing of a New Drug Application with the FDA in the second half of 2012 as an adjunct therapy for patients with major depressive disorder (MDD) who do not respond adequately to initial treatment with an SSRI or SNRI; first top-line Phase 3 results expected to become available in the fourth quarter of 2011;
- Initiated a global Phase 2b clinical trial as a "switch" monotherapy in patients with MDD who do not respond adequately to initial treatment with an SSRI or SNRI;

TC-5619

- Met protocol-defined success criteria on the primary efficacy outcome measure, the Groton Maze Learning Task of the CogState Schizophrenia Battery, and was well tolerated in a Phase 2 clinical proof of concept study in cognitive dysfunction in schizophrenia;
- Results from a Phase 2 clinical proof of concept study in adults with attention deficit/hyperactivity disorder (ADHD) expected to become available later in the first quarter of 2011;
- Decision by AstraZeneca whether to exercise its license right expected in the first half of 2011;

- Execution continuing for clinical and nonclinical studies to support potential advancement into Phase 2 clinical development in Alzheimer's disease;

AZD3480

- Decision by AstraZeneca regarding potential future development in ADHD now expected in the first half of 2011;
- Targacept continuing to explore the practicability of further development in Alzheimer's disease; respective roles, responsibilities and financial arrangements for such a study agreed with AstraZeneca;

AZD1446

- Decision by AstraZeneca regarding potential further development in Alzheimer's disease now expected in the third quarter of 2011, following the anticipated completion of AstraZeneca's ongoing study to evaluate pharmacodynamic effects in Alzheimer's disease patients;

TC-6987

- Initiated separate Phase 2 trials in asthma and Type 2 diabetes in the first quarter of 2011, with the goal to complete both studies by year end to guide the selection of the indications for which TC-6987 is best suited for later-stage development;

Scientific Leadership

- Generated efficacy signal in a four-week, single-site exploratory study of TC-6499 in 24 subjects with constipation-predominant irritable bowel syndrome; outcome suggests potential opportunities for NNR Therapeutics in the treatment of gastrointestinal disorders and Targacept is considering next steps; and
- Targacept scientists continue to demonstrate their leadership in NNR research, recently publishing two papers in respected scientific journals:
  - one reviewed the relevance of the alpha7 NNR as a target for treating a broad array of disease and disorders characterized by an inflammatory component (Bencherif, M., Lippiello, P.M., Lucas, R. & Marrero, M.B. (Oct. 2010). Alpha7 nicotinic receptors as novel therapeutic targets for inflammation-based diseases. *Cellular and Molecular Life Sciences*, DOI: 10.1007/s0018-010-052501.); and
  - the other reviewed the scientific evidence suggesting that an alpha7 modulator may affect the positive and negative symptoms of schizophrenia as well as cognitive dysfunction associated with the disease (Kucinski, A.J., et al.). Alpha7 neuronal nicotinic receptors as targets for novel therapies to treat multiple domains of schizophrenia. *Current Pharmaceutical Biotechnology*, 12(3): 437-448 (2011).

Financial Results

Targacept reported a net loss of $2.2 million for the fourth quarter of 2010, compared to a net loss of $26.4 million for the fourth quarter of 2009. For the year ended December 31, 2010, Targacept reported net income of $10.9 million, compared to a net loss of $39.4 million for 2009. The improved financial results were principally due to the recognition into revenue for both 2010 periods of a portion of the $200.0 million upfront payment from AstraZeneca under a December 2009 collaboration and license agreement for Targacept's product candidate TC-5214 and to the recording of a corresponding license fee obligation to a third party of $16.0 million for the fourth quarter of 2009. For the fourth quarter and year

ended December 31, 2010, Targacept recognized into revenue $18.3 million and $72.6 million, respectively, of the $200.0 million upfront payment. The results included non-cash, stock-based compensation charges of $1.2 million and $755,000 for the fourth quarters of 2010 and 2009, respectively, and $4.9 million and $2.5 million for the years ended December 31, 2010 and 2009, respectively.

Net operating revenues totaled $23.5 million for the fourth quarter of 2010, compared to $3.4 million for the fourth quarter of 2009. The higher net operating revenues for the 2010 period were principally attributable to the recognition of $18.3 million of the upfront payment described above, $2.4 million of the $11.0 million payment received from AstraZeneca in connection with an April 2010 expansion of the development program for TC-5619 and $1.5 million received under the U.S. government's Qualifying Therapeutic Discovery Project tax credit program. The higher net operating revenues were partially offset by decreases for the 2010 period of $1.5 million in collaboration research and development revenue and $313,000 of license fee revenue resulting from the January 2010 completion of the term of the preclinical research collaboration under Targacept's 2005 collaborative research and license agreement with AstraZeneca focused in cognitive disorders.

For the year ended December 31, 2010, net operating revenues totaled $85.7 million, compared to $25.1 million for 2009. The higher net operating revenues for 2010 were primarily attributable to recognition of an aggregate of $78.9 million of the $200.0 million and $11.0 million payments from AstraZeneca described above and $1.5 million received under the U.S. government's Qualifying Therapeutic Discovery Project tax credit program, partially offset by the achievement of a $10.0 million milestone event under Targacept's cognitive disorders agreement with AstraZeneca in July 2009, a decrease of $2.5 million in milestone payments from GlaxoSmithKline under a strategic alliance agreement and decreases of $5.2 million in collaboration research and development revenue and $1.1 million of license fee revenue resulting from the January 2010 completion of the term of the preclinical research collaboration under the cognitive disorders agreement with AstraZeneca.

Research and development expenses totaled $22.5 million for the fourth quarter of 2010, compared to $10.4 million for the fourth quarter of 2009. The higher research and development expenses for the 2010 period were principally attributable to an increase of $9.5 million in costs incurred for third-party research and development services in connection with clinical-stage product candidates, an increase of $1.4 million in costs incurred for third-party research and development services in connection with preclinical programs and $1.1 million in compensation costs for research and development personnel and other research and development-related operating and infrastructure costs. For the 2010 period, third-party research and development costs related to clinical-stage product candidates totaled $12.0 million and were incurred principally with respect to activities for the ongoing Phase 3 clinical development of TC-5214, Phase 2 clinical proof of concept trials of TC-5619 in cognitive dysfunction in schizophrenia and adults with ADHD and Phase 1 clinical development of TC-6987.

For the year ended December 31, 2010, research and development expenses totaled $64.5 million, compared to $40.2 million for 2009. The higher research and development expenses for the 2010 period were principally attributable to an increase of $17.3 million in costs incurred for third-party research and development services in connection with clinical-stage product candidates and $5.4 million in compensation costs for research and development personnel and other research and development-related operating and infrastructure costs, as well as a $1.5 million payment made upon entering into an exclusive worldwide license agreement with Cornerstone Therapeutics, Inc. For 2010, third-party research and development costs related to clinical-stage product candidates totaled $27.6 million and were incurred principally in connection with the same activities as described above for the fourth quarter of 2010.

General and administrative expenses totaled $2.4 million for the fourth quarter of 2010, compared to $3.7 million for the fourth quarter of 2009. For the year ended December 31, 2010, general and administrative expenses totaled $8.1 million, compared to $8.2 million for 2009. The lower general and administrative expenses for the 2010 periods were primarily attributable to decreased employee compensation and related expenses, arising principally from lower incentive compensation expenses in the 2010 periods.

Interest income, net of interest expense, totaled $324,000 for the fourth quarter of 2010, compared to $210,000 for the fourth quarter of 2009. For the year ended December 31, 2010, interest income, net of interest expense, totaled $1.3 million, compared to $833,000 for 2009. The increase for both 2010 periods reflected significantly increased cash and investment balances, partially offset by lower interest rates.

Income tax expense totaled $1.1 million for the fourth quarter of 2010, compared to a $5,000 income tax benefit for the fourth quarter of 2009. For the year ended December 31, 2010, income tax expense totaled $3.5 million compared to an income tax benefit of $88,000 for 2009. Income tax expense for each of the 2010 periods was primarily due to the tax effect recognized for periods with net income of the difference in treatment of stock-based compensation for income tax purposes as compared to U.S. generally accepted accounting principles.

2011 Financial Guidance

Based on current operating plans, Targacept expects its net operating revenues for the year ending December 31, 2011 to be in the range of $80 million to $90 million, its operating expenses for the year ending December 31, 2011 to be in the range of $105 million to $115 million, and its cash, cash equivalents and investments balance at December 31, 2011 to be at least $150 million. In addition, Targacept continues to expect that its current cash resources will be sufficient to meet its operating requirements at least through the end of 2013. This financial guidance includes both cash and non-cash revenue and expense items and does not include amounts that Targacept could receive if any milestone events are achieved under its agreement with AstraZeneca for TC-5214 or if AstraZeneca exercises its right to license TC-5619.

Conference Call

As previously announced, Targacept will be hosting a conference call and webcast today, February 10, 2011, at 5:00 p.m. Eastern Standard Time. The conference call may be accessed by dialing 800-638-5495 for domestic participants and 617-614-3946 for international callers (reference passcode 67516215). A replay of the conference call may be accessed from approximately 8:00 p.m. Eastern Standard Time on February 10, 2011 through February 24, 2011 by dialing 888-286-8010 for domestic callers and 617-801-6888 for international callers (reference passcode 13971958).

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 developing a diverse pipeline of innovative NNR Therapeutics™ for difficult-to-treat diseases and disorders of the nervous system. NNR Therapeutics selectively modulate the activity of specific neuronal nicotinic receptors, a unique class of proteins that regulate vital biological functions that are impaired in various disease states. Targacept's lead program, TC-5214, is being co-developed with AstraZeneca and is in Phase 3 clinical trials as an adjunct treatment for major depressive disorder.

Targacept leverages its scientific leadership and proprietary drug discovery platform Pentad™ to generate novel small molecule product candidates to fuel its pipeline and attract significant collaborations with global pharmaceutical companies. For more information, please visit www.targacept.com.

TARGACEPT
Building Health, Restoring Independence℠

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 statements, other than statements of historical fact, regarding, without limitation: the progress or scope of development of TC-5214, TC-5619, AZD3480, AZD1446, TC-6987 or any other Targacept product candidate or program, such as the target indication(s) for development, the size, design, population, conduct, duration or objective of any clinical trial or the timing for initiation or completion of any clinical trial, for availability of results from any clinical trial or for submission or approval of any regulatory filing (such as a New Drug Application for TC-5214); the timing for a decision by AstraZeneca as to whether to license TC-5619 or as to whether to conduct further development of either or both of AZD1446 or AZD3480; the competitive position of any Targacept product candidate or the commercial opportunity in any target indication; 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, performance or experience may differ materially from those expressed or implied by any forward-looking statement 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 collaborations with AstraZeneca; the control or significant influence that AstraZeneca has over the development of TC-5214, AZD3480 and AZD1446, including as to the timing, scope and design of any future clinical trials and as to the conduct at all of further development of AZD3480 in ADHD, AZD1446 in Alzheimer's disease or TC-5619 in Alzheimer's disease; the conduct and results of clinical trials and non-clinical studies and assessments of TC-5214, TC-5619, AZD3480, AZD1446, TC-6987 and any other Targacept product candidate, 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; whether AstraZeneca will decide to license TC-5619; whether AstraZeneca will decide to conduct any further development of AZD3480 in ADHD in light of reservations about the adequacy of the therapeutic margin; the overall impact of GlaxoSmithKline's shift in discovery research focus on Targacept's alliance with GlaxoSmithKline; Targacept's ability to protect its intellectual property; 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 December 31,		Year Ended December 31,	
	2010	2009	2010	2009
Net operating revenues	$ 23,495	$ 3,428	$ 85,713	$ 25,062
Operating expenses:				
Research and development	22,488	10,360	64,546	40,179
General and administrative	2,364	3,690	8,052	8,167
License fees and royalties	—	16,000	—	16,350
Cost of product sales	—	—	—	691
Total operating expenses	24,852	30,050	72,598	65,387
Operating (loss) income	(1,357)	(26,622)	13,115	(40,325)
Interest income, net	324	210	1,310	833
(Loss) income before income taxes	(1,033)	(26,412)	14,425	(39,492)
Income tax (expense) benefit	(1,131)	5	(3,526)	88
Net (loss) income	$ (2,164)	$ (26,407)	$ 10,899	$ (39,404)
Basic net (loss) income per share	$ (0.08)	$ (0.96)	$ 0.38	$ (1.54)
Diluted net (loss) income per share	$ (0.08)	$ (0.96)	$ 0.36	$ (1.54)
Weighted average common shares outstanding - basic	28,724,965	27,465,714	28,543,408	25,636,419
Weighted average common shares outstanding - diluted	28,724,965	27,465,714	30,150,324	25,636,419

TARGACEPT, INC
Unaudited Condensed Balance Sheets
(in thousands)

	December 31, 2010	December 31, 2009
Cash, cash equivalents and investments	$ 252,509	$ 111,066
Collaboration receivables and other current assets	4,057	203,363
Property and equipment, net	6,072	4,783
Other assets, net	149	167
Total assets	$ 262,787	$ 319,379
Current portion of deferred revenue	$ 81,710	$ 77,243
Other Current liabilities	16,947	23,984
Deferred revenue, net of current portion	70,934	147,195
Long-term debt, net of current portion	1,349	1,966
Total stockholders' equity	91,847	68,991
Total liabilities and stockholders' equity	$ 262,787	$ 319,379