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 4, 2010

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 August 4, 2010, Targacept, Inc. issued a press release announcing its financial results for the second quarter ended June 30, 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 August 4, 2010

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 4, 2010

/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 August 4, 2010

Exhibit 99.1

Targacept Reports Second Quarter 2010 Financial Results

Winston-Salem, North Carolina – **August 4, 2010** – Targacept, Inc. (NASDAQ: TRGT), a clinical-stage biopharmaceutical company developing novel NNR Therapeutics™, today reported its financial results for the second quarter ended June 30, 2010.

Targacept reported net income of $3.8 million for the second quarter of 2010, compared to a net loss of $9.7 million for the second quarter of 2009. For the six months ended June 30, 2010, Targacept reported net income of $10.6 million, compared to a net loss of $14.3 million for the corresponding period of 2009. The net income position for each of the 2010 periods was primarily due to the recognition into revenue of $18.1 million and $36.0 million, respectively, of the $200.0 million upfront payment received in January 2010 from AstraZeneca under a collaboration agreement for TC-5214. As of June 30, 2010, Targacept's cash, cash equivalents and investments totaled $283.7 million.

"We continued this quarter to execute on an aggressive operating plan for 2010 and passed an important company milestone with the timely initiation in June of the Phase 3 development program for TC-5214 as an adjunct to anti-depressant therapy for major depressive disorder," said J. Donald deBethizy, Ph.D., Targacept's President and Chief Executive Officer. "Three additional product candidates in Phase 2 development for cognitive disorders and a fourth targeted for inflammatory disorders that we expect to enter Phase 2 before the end of the year highlight the depth of our pipeline of NNR Therapeutics."

Recent Highlights and Program Updates:

TC-5214 (co-development with AstraZeneca)

- First patient enrolled in the Phase 3 clinical development program (known as the Renaissance Program), which is designed to support the planned second half of 2012 filing of a New Drug Application with the FDA for TC-5214 as an adjunct (or add-on) therapy for patients with major depressive disorder who do not respond adequately to first-line treatment with a selective serotonin reuptake inhibitor or serotonin/norepinephrine reuptake inhibitor;
- All five studies included in the Renaissance Program planned for initiation in 2010;
- Targacept and AstraZeneca held a scientific advisory group meeting with the European Medicines Agency and are executing towards the goal of filing a Marketing Authorization Application in Europe in 2014;
- Initiation of a Phase 2 clinical trial of TC-5214 as a second-line "switch" monotherapy expected by the end of 2010;

TC-5619

- Received $11.0 million from AstraZeneca in connection with an expansion of the development program for TC-5619 to include attention deficit/hyperactivity disorder (ADHD) and Alzheimer's disease in addition to cognitive dysfunction in schizophrenia (CDS);

- Phase 2 clinical proof of concept study of TC-5619 in adults with ADHD initiated in May 2010 and a separate Phase 2 clinical proof of concept study of TC-5619 in CDS ongoing; results from each of these trials expected in the first quarter of 2011;
- Studies ongoing to support the potential advancement of TC-5619 into Phase 2 clinical development for Alzheimer's disease; a Phase 2 trial in Alzheimer's disease could initiate in the first half of 2011;

AZD3480

- AstraZeneca is continuing to assess AZD3480 in non-clinical studies to support further development across the broad ADHD patient population; if AstraZeneca determines that AZD3480 is suitable for advancement as a potential ADHD therapy, Targacept expects the next trial would be a Phase 2b clinical trial in adults with ADHD and would initiate in the first quarter of 2011;

AZD1446

- Safety and tolerability clinical study of AZD1446 as an add-on treatment to donepezil in patients with Alzheimer's disease and a Phase 2 clinical study of AZD1446 in adults with ADHD currently being conducted by AstraZeneca and expected to complete in the second half of 2010;

TC-6987 and Inflammatory Disorders

- Phase 1 multiple rising dose clinical study of TC-6987 ongoing; multiple inflammatory disorders under consideration for future development, with the first Phase 2 clinical trial expected to initiate in the fourth quarter of 2010; and
- Added to program for inflammatory disorders with the in-licensing of NNR-based patents and a library of preclinical compounds that act on alpha7 and other nicotinic receptors from Cornerstone Therapeutics Inc.

Financial Results

Targacept reported net income of $3.8 million for the second quarter of 2010, compared to a net loss of $9.7 million for the second quarter of 2009. For the six months ended June 30, 2010, Targacept reported net income of $10.6 million, compared to a net loss of $14.3 million for the corresponding period in 2009. The net income position for each of the 2010 periods was primarily due to the recognition into revenue of $18.1 million and $36.0 million, respectively, of the $200.0 million upfront payment received in January 2010 from AstraZeneca. The results included non-cash, stock-based compensation charges of $1.2 million and $572,000 for the second quarter of 2010 and 2009, respectively, and $2.5 million and $1.1 million for the six months ended June 30, 2010 and 2009, respectively.

Net operating revenues totaled $20.9 million for the second quarter of 2010, compared to $2.8 million for the second quarter of 2009. The higher net operating revenues for the 2010 period were principally attributable to the recognition of $18.1 million of license fee revenue described above and $1.6 million of the $11.0 million payment received from AstraZeneca in connection with an April 2010 expansion of the development program for TC-5619, partially offset by decreases of $1.1 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 agreement with AstraZeneca for cognitive disorders.

For the six months ended June 30, 2010, net operating revenues totaled $40.4 million compared to $9.0 million for the corresponding period in 2009. The higher net operating revenues for the 2010 period were primarily attributable to the recognition of $37.6 million of license fee revenue derived from the $200.0 million and $11.0 million payments from AstraZeneca described above, partially offset by decreases of $2.5 million in milestone payments from GlaxoSmithKline and $2.7 million in collaboration research and development revenue and $521,000 of license fee revenue resulting from the January 2010 completion of the term of the preclinical research collaboration under Targacept's agreement with AstraZeneca for cognitive disorders.

Research and development expenses totaled $14.1 million for the second quarter of 2010, compared to $11.0 million for the second quarter of 2009. The higher research and development expenses for the 2010 period were principally attributable to increases of $2.0 million in costs incurred for third-party research and development services in connection with clinical-stage product candidates and $1.5 million in compensation-related costs for research and development personnel and infrastructure costs, partially offset by a decrease of $383,000 in costs incurred for third-party research and development services in connection with preclinical programs. For the 2010 period, third-party research and development costs related to clinical-stage product candidates totaled $5.8 million and were incurred principally with respect to activities for the ongoing Phase 2 clinical proof of concept trials of TC-5619 in cognitive dysfunction in schizophrenia and adults with ADHD, Phase 3 development of TC-5214 and Phase 1 clinical development of TC-6987.

For the six months ended June 30, 2010, research and development expenses totaled $24.7 million, compared to $20.5 million for the corresponding period in 2009. The higher research and development expenses for the 2010 period were principally attributable to increases of $2.7 million in compensation-related costs for research and development personnel and infrastructure costs and $2.6 million in costs incurred for third-party research and development services in connection with clinical-stage product candidates, partially offset by a decrease of $1.2 million in costs incurred for third-party research and development services in connection with preclinical programs. For the 2010 period, third-party research and development costs related to clinical-stage product candidates totaled $8.6 million and were incurred principally with respect to the same activities as described above for the second quarter of 2010.

General and administrative expenses totaled $1.8 million for the second quarter of 2010, compared to $1.4 million for the second quarter of 2009. For the six months ended June 30, 2010, general and administrative expenses totaled $3.6 million, compared to $2.8 million for the corresponding period in 2009. The higher general and administrative expenses for the 2010 periods were principally attributable to increases in stock based compensation expense, salary and other compensation-related expenses for general and administrative personnel of $467,000 and $822,000, respectively.

Other income, net of expense, totaled $328,000 for the second quarter of 2010, compared to $201,000 for the second quarter of 2009. For the six months ended June 30, 2010, other income, net of expense, totaled $660,000, compared to $503,000 for the corresponding period in 2009. The increase for both 2010 periods reflected significantly increased cash and investment balances, partially offset by lower interest rates.

Income tax expense totaled $1.5 million for the second quarter of 2010, compared to no income tax expense or benefit for the second quarter of 2009. For the six months ended June 30, 2010, income tax expense totaled $2.1 million compared to an income tax benefit of $73,000 for the corresponding period in 2009. Income tax expense for each of the 2010 periods was primarily due to the tax effect of the difference in treatment of stock-based compensation for income tax purposes as compared to U.S. generally accepted accounting principles.

Conference Call

As previously announced, Targacept will be hosting a conference call and webcast today, August 4, 2010, at 5:00 p.m. Eastern Daylight Time. The conference call may be accessed by dialing 800-591-6942 for domestic participants and 617-614-4909 for international callers (reference passcode 93542084). A replay of the conference call may be accessed from approximately 8:00 p.m. Eastern Daylight Time on August 4, 2010 through August 18, 2010 by dialing 888-286-8010 for domestic callers and 617-801-6888 for international callers (reference passcode 99843216).

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 in Phase 3 development 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. Targacept is committed to Building Health and Restoring Independence™ for patients. For more information, please visit 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 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 size, design, population, conduct, duration or objective of any clinical trial, 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 (including a New Drug Application or a Marketing Authorization Application for TC-5214), or the target indication(s) for development; 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 or AZD1446 in Alzheimer's disease or ADHD; 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; 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 June 30,		Six Months Ended June 30,	
	2010	2009	2010	2009
Net operating revenues	$ 20,902	$ 2,830	$ 40,420	$ 8,971
Operating expenses:				
Research and development	14,122	11,049	24,729	20,544
General and administrative	1,814	1,377	3,636	2,848
Cost of product sales	—	258	—	485
Total operating expenses	15,936	12,684	28,365	23,877
Operating income (loss)	4,966	(9,854)	12,055	(14,906)
Other income, net	328	201	660	503
Income (loss) before income taxes	5,294	(9,653)	12,715	(14,403)
Income tax (expense) benefit	(1,512)	—	(2,138)	73
Net income (loss)	$ 3,782	$ (9,653)	$ 10,577	$ (14,330)
Basic net income (loss) per share	$ 0.13	$ (0.39)	$ 0.37	$ (0.57)
Diluted net income (loss) per share	$ 0.13	$ (0.39)	$ 0.35	$ (0.57)
Weighted average common shares outstanding—basic	28,509,619	24,966,347	28,411,083	24,965,632
Weighted average common shares outstanding—diluted	30,152,309	24,966,347	30,082,275	24,965,632

TARGACEPT, INC

Unaudited Condensed Balance Sheets
(in thousands)

	June 30, 2010	December 31, 2009
Cash, cash equivalents and investments	$283,726	$ 111,066
Collaboration receivables and other current assets	3,532	203,363
Property and equipment, net	5,367	4,783
Other assets, net	158	167
Total assets	$292,783	$ 319,379
Current portion of deferred revenue	$ 86,336	$ 77,243
Other current liabilities	9,936	23,984
Deferred revenue, net of current portion	109,269	147,195
Long-term debt, net of current portion	1,215	1,966
Total stockholders' equity	86,027	68,991
Total liabilities and stockholders' equity	$292,783	$ 319,379