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): July 14, 2014

TARGACEPT, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation)

> 100 North Main Street, Suite 1510 Winston-Salem, North Carolina (Address of principal executive offices)

000-51173 (Commission File Number) 56-2020050 (IRS Employer Identification No.)

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)

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

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

Item 8.01 Other Events.

On July 14, 2014, Targacept, Inc. issued a press release announcing top-line results from its Phase 2b clinical trial of TC-1734 in mild to moderate Alzheimer's disease. The full text of the press release is attached as Exhibit 99.1 to this Current Report on Form 8-K.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

| Exhibit <u>Number</u> | Description |
|--------------------------|-----------------------------------|
| 99.1 | Press release dated July 14, 2014 |

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.

Date: July 14, 2014

TARGACEPT, INC.

/s/ Patrick C. Rock

Patrick C. Rock Senior Vice President, General Counsel and Secretary

EXHIBIT INDEX

Exhibit
NumberDescription99.1Press release dated July 14, 2014

Targacept Phase 2b Clinical Trial in Alzheimer's Disease Does Not Show Superiority of TC-1734 Over Donepezil

Winston-Salem, NC—July 14, 2014—Targacept, Inc. (NASDAQ: TRGT), a clinical-stage biopharmaceutical company developing novel NNR TherapeuticsTM, today announced top-line results from a Phase 2b monotherapy clinical trial of TC-1734 as a treatment for mild to moderate Alzheimer's disease. In the trial, TC-1734 did not meet the objective of showing superiority to donepezil, the marketed medication most often prescribed for Alzheimer's disease, after 52 weeks of treatment. The trial did not include a placebo arm and was not designed to determine whether TC-1734 is equivalent to donepezil. The co-primary endpoints for the study were measures of cognitive function and global function. Consistent with previous clinical results, TC-1734 exhibited a benign safety and tolerability profile.

"We are disappointed for Alzheimer's disease patients and their families. We designed a rigorous study to provide a definitive answer on whether TC-1734 could be a better treatment option than the current standard of care in what has been a very difficult disease area for the development of novel therapeutics. Based on these results, we do not intend to invest in further development of TC-1734," said Dr. Stephen A. Hill, Targacept's President and Chief Executive Officer. "I want to thank the investigators, patients and my colleagues at Targacept for their efforts."

Analyses of the full dataset from the trial are ongoing and Targacept plans to present and publish more detailed results over the coming months.

About the Trial

The Phase 2b trial was a double blind, positive comparator, randomized, parallel group trial evaluating TC-1734 head-to-head against donepezil, the marketed medication most often prescribed for Alzheimer's disease. The trial randomized 293 patients, and was conducted at 61 sites in Eastern Europe and 3 sites in the United States. For U.S. regulatory purposes, the Alzheimer's Disease Assessment Scale-Cognitive subscale 11-item assessment and the Clinician Interview-Based Impression of Change Plus Caregiver Input (CIBIC-(+)) were co-primary endpoints, with the Alzheimer's Disease Cooperative Study-Activities of Daily Living Inventory replacing CIBIC-(+) as a co-primary endpoint for European regulatory purposes. The study included a 3-week screening period, followed by a 12-month treatment period during which patients received a fixed dose of TC-1734 (30mg) or donepezil once daily.

About Targacept

Targacept is developing an advanced clinical pipeline of NNR Therapeutics™ to treat patients suffering from serious nervous system and gastrointestinal/genitourinary diseases and disorders. Many diseases arise from abnormalities in signaling within and between the brain and other organ systems such as the bladder and the GI tract. Targacept's NNR Therapeutics have the potential to normalize these signaling pathways to provide significant medical benefit. Targacept is dedicated to building health and restoring independence for patients. 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: whether or when Targacept will initiate further clinical trials of TC-1734; the medical benefits or tolerability of TC-1734 as a treatment for Alzheimer's disease; the competitive position of TC-1734 or the commercial opportunity; 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. Risks and uncertainties that Targacept faces 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.

NNR Therapeutics[™] and Building Health, Restoring Independence[®] are trademarks or service marks of Targacept, Inc. Any other service marks, trademarks and trade names appearing in this press release are the properties of their respective owners.

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