
**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): April 24, 2012

TARGACEPT, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

000-51173
(Commission
File Number)

56-2020050
(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))
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Item 1.02 Termination of a Material Definitive Agreement.

On April 24, 2012, Targacept, Inc. received notice of termination of its collaboration and license agreement, dated December 3, 2009, with AstraZeneca AB for the development and commercialization of Targacept's product candidate TC-5214. By the terms of the agreement, the termination becomes effective on May 24, 2012. As a result of the termination of the agreement, all rights and licenses granted under the agreement by Targacept to AstraZeneca will terminate and revert to Targacept.

Under the agreement, Targacept and AstraZeneca conducted a global development program for TC-5214 as an adjunct to antidepressant therapy for patients with major depressive disorder who do not respond adequately to initial antidepressant treatment (the "Target Indication"). In March 2012, Targacept and AstraZeneca announced that, based on the totality of the results from the program, they will not pursue a regulatory filing for TC-5214 for the Target Indication.

Targacept will incur no early termination penalties as a result of the termination of the agreement.

Targacept and AstraZeneca are also parties to a collaborative research and license agreement, dated as of December 27, 2005, as amended, that is focused in cognitive disorders and remains in full force and effect.

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: April 30, 2012

/s/ Peter A. Zorn

Peter A. Zorn
Senior Vice President, Legal Affairs, General Counsel and
Secretary