
**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 18, 2011

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 7.01 Regulation FD Disclosure.

Rule 10b5-1 promulgated under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), permits directors, officers and other persons who are not aware of material non-public information to adopt pre-arranged plans for the purchase or sale of company securities under specified conditions or at specified times. Once a plan is adopted, the participant has no discretion over the timing, price or terms of transactions made pursuant to the plan.

In June 2011, J. Donald deBethizy, Ph.D., President and Chief Executive Officer of Targacept, Inc. (“Targacept”), adopted a plan designed to comply with Rule 10b5-1. Dr. deBethizy adopted the plan for financial planning purposes and other personal considerations. Under the terms of the plan, Dr. deBethizy could sell up to 199,890 shares of Targacept common stock, if certain per share price targets are reached. The shares subject to the plan represent approximately 31.4% of Targacept stock options currently held by Dr. deBethizy. The price targets under the plan range from \$25.00 to \$50.00, with a weighted average price target of \$30.32.

An additional 142,243 shares of Targacept common stock could be sold pursuant to currently effective plans designed to comply with Rule 10b5-1 adopted by other executive officers of Targacept, if certain per share price targets are reached. The price targets under these plans range from \$21.50 to \$40.00, with a weighted average price target of \$29.26.

An additional 94,500 shares of Targacept common stock could be sold pursuant to currently effective plans designed to comply with Rule 10b5-1 adopted by non-employee directors of Targacept, if certain per share price targets are reached. The price targets under these plans range from \$20.00 to \$55.00, with a weighted average price target of \$36.85.

Any transaction that is executed under a plan referenced in this Current Report on Form 8-K will be disclosed publicly in accordance with applicable securities laws, rules and regulations through the required filing with the Securities and Exchange Commission.

Targacept does not undertake any obligation to report Rule 10b5-1 plans that may be adopted from time to time by any of its directors, officers or other personnel or to report any modification or termination of such plans, except as may be required by applicable law.

The information in this Current Report on Form 8-K shall not be deemed to be “filed” for purposes of Section 18 of 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, unless such filing references this Current Report on Form 8-K specifically.

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 18, 2011

/s/ Alan A. Musso

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