

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

**INFORMATION REQUIRED IN PROXY STATEMENT
SCHEDULE 14A INFORMATION**

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material Pursuant to Rule 14a-12

Targacept, Inc.

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if Other Than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required.
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.
- (1) Title of each class of securities to which transaction applies: _____
- (2) Aggregate number of securities to which transaction applies: _____
- (3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined): _____
- (4) Proposed maximum aggregate value of transaction: _____
- (5) Total fee paid: _____
- Fee paid previously with preliminary materials.
- Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing:
- (1) Amount Previously Paid: _____
- (2) Form, Schedule or Registration Statement No.: _____
- (3) Filing Party: _____
- (4) Date Filed: _____

Important Notice Regarding the Availability of Proxy Materials for the Stockholder Meeting of

Meeting Information

TARGACEPT, INC.

Meeting Type: Annual Meeting
For holders as of: April 14, 2010
Date: June 10, 2010 Time: 8:30 a.m. Eastern Daylight Time
Location: Winston-Salem Marriott
425 North Cherry Street
Winston-Salem, North Carolina 27101



Table with 2 columns and 3 rows: COMPANY NUMBER, ACCOUNT NUMBER, CONTROL NUMBER.

This communication is not a form for voting and presents only an overview of the more complete proxy materials that are available to you on the Internet or by mail. We encourage you to access and review all of the important information contained in the proxy materials before voting.

Please visit www.targacept.com/2010annualmeeting where the following materials are available for view:

- Notice of 2010 Annual Meeting of Stockholders and Proxy Statement
•Form of Proxy Card
•2009 Annual Report

If you want to receive a paper or e-mail copy of these documents you must request one, as you will not otherwise receive one. There is no charge to you for requesting a copy. Please make your request as instructed below on or before May 27, 2010 to facilitate timely delivery.

TO REQUEST MATERIAL: TELEPHONE: 888-Proxy-NA (888-776-9962) or 718-921-8562 (for international callers)
E-MAIL: info@amstock.com
WEBSITE: http://www.amstock.com/proxyservices/requestmaterials.asp

TO VOTE: OVER THE INTERNET: To access your online proxy card, please visit www.voteproxy.com and follow the on-screen instructions. You may enter your voting instructions at www.voteproxy.com up until 11:59 PM Eastern Daylight Time the day before the meeting date.

IN PERSON: You may vote your shares in person at the Annual Meeting.

BY TELEPHONE: To vote by telephone, please visit https://secure.amstock.com/voteproxy/login2.asp to view the materials and to obtain the toll free number to call.

BY MAIL: You may request a card by following the instructions above.

For directions to the Annual Meeting, please contact Jo Peay at 336-480-2100.

Matters to be acted upon:

- 1. Election of the three nominees named below as Class I directors for a term to expire at the 2013 annual meeting of stockholders, with each director to hold office until his successor is duly elected and qualified or until his earlier death, retirement, resignation or removal.

NOMINEES:

- Charles A. Blixt
Alan W. Dunton, M.D.
Ralph Snyderman, M.D.

- 2. Proposal to ratify the appointment of Ernst & Young LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2010.
3. Any other business that is properly brought before the Annual Meeting.

This is not a ballot or proxy card. You cannot use this notice to vote your shares.

The Board of Directors recommends that you vote FOR the election of Charles A. Blixt, Alan W. Dunton, M.D. and Ralph Snyderman, M.D. as Class I directors and FOR the ratification of the appointment of Ernst & Young LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2010.

If any other business is properly brought before the Annual Meeting, the persons named as proxies on the proxy card for the Annual Meeting will have the authority to vote the shares represented by proxy in their discretion.

[TARGACEPT, INC. LETTERHEAD]

April 16, 2010

VIA EDGAR

Filing Desk
Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549

Re: Targacept, Inc. Notice of Annual Meeting and Internet Availability of Proxy Materials

Ladies and Gentlemen:

On behalf of Targacept, Inc. (the "Company"), accompanying this letter for filing please find: (i) the notice of annual meeting and internet availability of proxy materials to be provided by the Company to its stockholders pursuant to Rule 14a-16 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), in connection with the Company's 2010 Annual Meeting of Stockholders scheduled for June 10, 2010; and (ii) the Schedule 14A cover page required pursuant to Rule 14a-6(m) promulgated under the Exchange Act.

Sincerely,

Targacept, Inc.

By: /s/ Peter A. Zorn

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