

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

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 Under 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:

Targacept, Inc.
2012 Annual Meeting of Stockholders
Supplemental Information Regarding
Proposal 2 — Advisory Vote to Approve the Compensation of Targacept’s Named Executive
Officers as Disclosed in the Proxy Statement (“Say on Pay”)

Commencing on or about May 24, 2012, the following materials will be used by officers, directors and employees of Targacept, Inc. to communicate about Proposal 2 – Advisory Vote to Approve the Compensation of Targacept’s Named Executive Officers as Disclosed in the Proxy Statement (“Say on Pay”) for the 2012 Annual Meeting of Stockholders to be held on May 31, 2012, and may be sent to certain stockholders. This information supplements information contained in our definitive 2012 proxy statement dated April 20, 2012. This information may be deemed “soliciting material” within the meaning of the Securities Exchange Act of 1934, as amended, and the rules and regulations of the Securities and Exchange Commission.

I. Overview

At our 2012 Annual Meeting of Stockholders (the “Annual Meeting”) to be held on May 31, 2012, our stockholders will vote on the three proposals described in our proxy statement for the Annual Meeting dated April 20, 2012 (the “Proxy Statement”). One of the proposals, Proposal 2, is to approve, on a non-binding, advisory basis, the executive compensation paid by us to our named executive officers for the 2011 fiscal year as described in the Proxy Statement (the “Say on Pay Proposal”). Our Board of Directors has recommended a vote **FOR** the Say on Pay Proposal. Stockholders as of the record date for the Annual Meeting were previously sent a Notice of Annual Meeting and Internet Availability of Proxy Materials, and stockholders can view the proxy materials for the Annual Meeting on Targacept’s website at www.targacept.com/2012annualmeeting.

Glass Lewis & Co., one of the two major proxy advisory firms, has recommended a vote **FOR** the Say on Pay Proposal. Institutional Shareholder Services Inc. (“ISS”), however, has recommended that stockholders vote **AGAINST** the Say on Pay Proposal, specifically citing a perceived misalignment between the compensation of our President and Chief Executive Officer, J. Donald deBethizy, Ph.D., and company performance. The report issued by ISS with its recommendation indicates that its conclusion results largely from its assessed value of a stock option granted to Dr. deBethizy in March 2011, many months prior to negative clinical trial outcomes and associated significant stock price declines that we experienced in the fourth quarter of 2011. That stock option has an exercise price of \$26.05 and represents little or no actual value to Dr. deBethizy following the stock price decline. Moreover, as described in more detail below, ISS reached its conclusion not to support the Say on Pay Proposal in the face of contrary outcomes on its own quantitative tests to evaluate pay-for-performance and without regard to (1) actions taken by the Compensation Committee of our Board of Directors (the “Compensation Committee”) following the above-referenced stock price decline that clearly exhibit its commitment to aligning executive pay with performance and (2) factors unique to Targacept for 2011. We believe ISS’s conclusion is arbitrary and against the weight of objective evidence and we request that stockholders vote **FOR** the Say on Pay Proposal.

II. Background

Targacept is a biopharmaceutical company engaged in the design, discovery and development of novel NNR Therapeutics™ for the treatment of diseases and disorders of the nervous system. Pharmaceutical research and development is an extraordinarily time consuming process in a highly regulated, highly competitive environment. In addition to the time and expense involved, the process involves risks at each stage of testing and the outcomes are uncertain.

In the fourth quarter of 2011, we and our collaborator AstraZeneca reported that neither of the first two Phase 3 clinical trials of our product candidate TC-5214, a nicotinic channel modulator then in development as an adjunct therapy for patients with major depressive disorder, met its primary endpoint. Following each of these announcements, our stock price experienced significant declines.

Prior to the clinical setbacks for TC-5214, in March 2011, the Compensation Committee, giving consideration to the value of stock options as an incentive and retention tool, determined to grant a stock option to each of our named executive officers, as well as to our other executive officers and substantially all of our other employees. Dr. deBethizy was granted a stock option to purchase 105,000 shares of Targacept's common stock with an exercise price of \$26.05 per share, which is equal to the fair market value of Targacept's common stock (the closing price on NASDAQ) on the date of grant. The option vests quarterly over four years.

We believe this option grant to Dr. deBethizy is the primary basis for ISS's recommendation against the Say on Pay Proposal. However, as discussed below, when analyzed in the context of the totality of the circumstances and taking into account both ISS's own published policies and various aspects of its analysis and methodology that we believe are flawed, we strongly disagree that the stock option granted to Dr. deBethizy in 2011 should have resulted in a negative recommendation from ISS on the Say on Pay Proposal.

One of the primary objectives of the Compensation Committee is to align the interests of our executive officers with those of our stockholders. We believe the policies and procedures of the Compensation Committee, which includes among its members a principal of our largest stockholder, effectively achieve this objective.

III. Disagreements with ISS's Analysis and Methodology

As a threshold matter, we believe that the results of the quantitative pay-for-performance tests that ISS performed should have completed its analysis and resulted in support for our 2011 executive compensation. None of the three quantitative pay-for-performance analyses that ISS performs to identify companies with a significant misalignment in pay-for-performance resulted in a level of "High" concern for our 2011 executive compensation, based on ISS's own published rating scale (two of the analyses generated a level of "Low" concern and one analysis generated a level of "Medium" concern). Accordingly, we believe that the results of ISS's quantitative analysis did not indicate Targacept to be a significant outlier in pay-for-performance alignment and were (or should have been) sufficient under ISS's published policies to support a recommendation in favor of the Say on Pay Proposal. However, ISS nevertheless determined to proceed with a qualitative analysis of Targacept's 2011 executive compensation and ultimately concluded to recommend a vote against the Say on Pay Proposal based on the relative alignment of our CEO's compensation compared to total shareholder return ("TSR") as compared to an ISS-selected peer group.

We believe ISS's qualitative analysis was flawed in several respects as described below.

1. ISS Inaccurately Concluded That Our Board Of Directors Has The Ability To Reprice Stock Options

ISS's recommendation is based, in part, on the premise that our Board of Directors has the discretion under the Targacept, Inc. 2006 Stock Incentive Plan to reprice stock options (i.e., lower the exercise price of a granted stock option sometime after grant) without stockholder approval. This

statement is factually incorrect and was acknowledged as such by ISS in a Proxy Alert issued by ISS on May 21, 2012.

2. ISS Has A Rigid And Inappropriate Opposition To Stock Options With Time-Based Vesting And Fails To Appreciate That Time-Based Vesting Is Standard Practice In Targacept's Industry.

ISS's recommendation is also based, in part, on a purported concern with the time-based vesting schedule of Dr. deBethizy's 2011 option grant. ISS maintains that stock options with time-based vesting are not performance-based compensation. We disagree. Stock options granted with an exercise price at fair market value on the date of grant (which we set at the closing price on NASDAQ) have no intrinsic value to the recipient unless and until our stock price increases above the option exercise price and then to no greater extent than that available to any stockholder that purchases stock at the closing price on the grant date. This aligns the recipient's compensation directly with company performance measured by stock price and also aligns the recipient's interests with those of our stockholders. Also, because Targacept's stock options have quarterly vesting schedules over four years, the value to the recipient, if any, is contingent on the extent to which the recipient continues in Targacept's service through the vesting period. This helps us to achieve our objective of attracting and retaining key executive personnel. The 2011 option grant to Dr. deBethizy has not provided any actual realizable compensation to Dr. deBethizy and will do so only if our stock price increases substantially to be above the exercise price and then only to the extent that he continues in our service through the vesting period. Given ISS's focus on TSR in its analysis, we fail to see how stock options, which only provide value if Targacept's stock price increases after the grant date, are not directly aligned with the long-term interests of our stockholders.

In addition, we believe our use of time-based stock options as a long-term incentive vehicle is consistent with the practices of most of our peer companies as well as companies throughout the biotechnology/biopharmaceutical industry. If we were to incorporate additional conditions to the exercise of our stock options, we believe it would have a substantial and adverse effect on our ability to attract and retain executive talent for which we compete.

3. We Believe ISS Inappropriately Criticizes And Gives Undue Weight To The Compensation Committee's Philosophy Of Targeting The 75th Percentile With Annual Stock Option Grants As The Compensation Committee Has And Will Exercise Its Discretion To Deviate From This Philosophy When Circumstances Justify Deviation

The Compensation Committee's stated philosophy is to target the 75th percentile of peer group compensation with respect to annual stock option grants. At the time of Dr. deBethizy's option grant in 2011, his base salary was below the 50th percentile and more closely approximated the 25th percentile, which factor the Compensation Committee considered when applying this philosophy and determining the size of Dr. deBethizy's option grant. The Compensation Committee, however, is neither bound by nor rigidly adheres to a formulaic application of this philosophy and will use its discretion to deviate from the 75th percentile when justified to do so by outside factors, including company performance. For example, in May 2012 the Compensation Committee awarded Dr. deBethizy a stock option grant that was positioned at about the 25th percentile.

4. We Believe ISS's Analysis Overstates The Compensation Paid To Our CEO By Utilizing Its Own Black-Scholes Valuation Of The Stock Option Granted To The CEO In 2011

We believe ISS's analysis overstates the compensation paid to our CEO in 2011 by utilizing its own Black-Scholes valuation of the stock option granted to Dr. deBethizy in 2011. In fact, ISS calculated a value for this option of \$2.648 million, which is \$952,000, or approximately 36%, higher than the Targacept value disclosed in the Proxy Statement. ISS's model to value options differs from the model

used by Targacept and is inconsistent with applicable accounting guidance. Targacept's grant date fair value of option awards as set forth in the Proxy Statement is the same as that used for purposes of recording the compensation expense in our audited financial statements, and we believe our assumptions are appropriate and reasonable. We believe that the assumptions underlying the fair value of option awards used in ISS's analysis are not appropriate or reasonable.

5. We Believe The Peer Group Used By ISS To Evaluate Our Pay-For-Performance Alignment Is Not An Appropriate Peer Group

We believe that the peer group of companies used by ISS to evaluate our pay-for-performance alignment is not an appropriate peer group for several reasons. ISS uses a proprietary method of selecting its peer group constituents that considers three basic, data-driven factors: industry classification (based on the Standard & Poors GICS code system), revenue, and market capitalization. While we view these factors as important selection criteria, we believe this comparison is flawed as the peer group ISS selected does not provide appropriate comparators for Targacept. In establishing our peer group for compensation purposes, the Compensation Committee includes only pharmaceutical and biopharmaceutical companies at a similar stage of development and with market capitalizations within a range of ours, and taking into account several other indicators including R&D budgets, total operating budgets, and number of employees. The impact of overlooking factors such as direct competitors for talent has a material impact on the quality of the ISS peer group. As a result of neglecting these important selection factors, the ISS peer group overlaps with our peer group by only 5 companies (5 of the 17 companies in the peer group established by the Compensation Committee are included in the 23 ISS-selected companies).

6. ISS's Analysis Places Undue Emphasis On Targacept's Stock Price At The End Of The Year

ISS acknowledges that our CEO's compensation and TSR were generally aligned over the last five years, but that this changed in 2011 when Targacept's stock price significantly declined following the announcements in the fourth quarter of 2011 that TC-5214 did not achieve the primary endpoint in two Phase 3 clinical trials. The market prices of securities of pharmaceutical, biopharmaceutical and biotechnology companies are extremely volatile. For example, Dr. deBethizy's option grant in 2011 was issued in March 2011 with an exercise price of \$26.05, at which time Targacept's stock price was near its 52-week high of \$30.47, and several months before the clinical setbacks announced in the fourth quarter. On November 7, 2011, the last trading day before the announcement of top-line results from the first Phase 3 trial of TC-5214, Targacept's stock closed at \$19.12. On November 8, 2011, the day of the announcement of the top-line results from first the Phase 3 trial, Targacept's stock closed at \$7.61. ISS's focus on the stock price at the end of 2011 and the impact this focus has on its analysis fails to account for the fact that Dr. deBethizy's stock option was granted prior to the clinical setbacks experienced later in the year and the volatility of our stock price, as would be expected in our industry, that then occurred.

IV. Failure of ISS to Consider our Compensation Committee's Response to our Changed Circumstances in the Fourth Quarter of 2011 or our Existing Adherence to Best Practices.

In addition to our disagreements with ISS's analysis and methodology, we also contend that ISS failed to give appropriate weight to the actions of our Compensation Committee following the clinical setbacks for TC-5214 that we experienced in the fourth quarter of 2011 or our historical adherence to compensation program best practices. In particular, in January 2012, the Compensation Committee determined:

- to reconstitute our peer group for executive compensation benchmarking purposes to better reflect our changed profile (including stage of development and market capitalization), as opposed to continuing with our then-existing peer group;

- that none of our executive officers would receive a bonus under our annual cash incentive award program for fiscal 2011; and
- that none of our executive officers would receive any increase to his/her base salary for fiscal 2012.

In addition, Targacept has historically demonstrated a commitment to best practices with respect to performance-based executive compensation and governance design. Pay practices that are commonly cited as corporate governance concerns are not part of our executive compensation program. For example, a change in control of our company, alone, would not give rise to the payment of severance under our respective employment agreements with our named executive officers. Severance under the employment agreements is not triggered unless employment of the executive is terminated other than for cause or by the executive for a defined good reason. Accordingly, a change in control, alone, would not give rise to the payment of severance. Where severance is triggered under the employment agreements, the amount varies by executive but does not exceed for any executive 12 months base salary and 12 months acceleration of stock option vesting. Further, none of our employment agreements provides for an excise tax gross up.

At last year's Annual Meeting of Stockholders, the compensation of Targacept's named executive officers was approved with more than 99% of voted shares voting in favor. The Compensation Committee viewed this vote as evidence of strong stockholder support for Targacept's executive compensation decisions and policies and maintained its policies and procedures. When our circumstances changed in the fourth quarter of 2011, the Compensation Committee took action, as described above, consistent with its pay-for-performance philosophy. ISS's analysis failed to consider properly the Compensation Committee's clear commitment to aligning executive pay with performance.

V. Conclusion

We urge our stockholders to consider the above discussion together with the Executive Compensation section of the Proxy Statement, which discusses how our executive compensation policies and procedures implement our executive compensation philosophy. As disclosed in the Proxy Statement, the Compensation Committee believes that these policies and procedures are effective in implementing our executive compensation philosophy and in achieving its goals.

Your vote is important. In light of the foregoing, we strongly recommend that you vote FOR the Say on Pay Proposal. As we noted, a leading proxy advisory firm, Glass Lewis, has recommended that stockholders vote FOR the Say on Pay Proposal.

Even if voting instructions for your proxy have already been given, you can change your vote at any time before the Annual Meeting by giving new voting instructions as described in more detail in the Proxy Statement.