FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

| STATEMENT | OF CHANGES | S IN BENEFICIAL | OWNERSHIP |
|------------------|------------|-----------------|------------------|

| L | OMB APPRO | VAL |
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| | OMB Number: | 3235-0287 |
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| | hours per response: | 0.5 |

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| 1. Name and Address of Reporting Person* DUNTON ALAN W (Last) (First) (Middle) C/O TARGACEPT, INC. | | | | | Issuer Name and Ticker or Trading Symbol TARGACEPT INC [TRGT] Date of Earliest Transaction (Month/Day/Year) 06/07/2013 | | | | | | | | Relationship leck all applic X Directo | cable) | Person(s) to Issi 10% Ow | | |
|---|---|--|------------------|--|---|---------------|--|----------------|--|--------|----------------------|---|--|---|---|--|--|
| | | | | | | | | | | | | | | Officer (give title below) | | pecify | |
| 100 NOF | RTH MAIN | STREET, SUIT | E 1510 | | | | | | | | | | | | | | |
| (Street) WINSTON- SALEM NC 27101 | | | 4. If | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | Lin | ndividual or Joint/Group Filing (Check Applicable e) X Form filed by One Reporting Person Form filed by More than One Reporting Person | | | | | |
| (City) | (S | tate) | (Zip) | | | | | | | | | | | | | | |
| | | Tab | le I - Non | -Deriv | ative | e Se | curities | s Ac | quired, | Dis | posed o | f, or Be | neficial | ly Owned | | | |
| 1. Title of Security (Instr. 3) 2. Transa Date (Month/D | | | | Execution ay/Year) if any | | ecution Date, | | ction nstr. | | | | Beneficia Owned F | ties For cially (D) Following (I) (| rm: Direct or Indirect (Instr. 4) | 7. Nature of Indirect Beneficial Ownership | | |
| | | | | | | | | Code | v | Amount | (A) or (D) | Price | Reported Transact (Instr. 3 | ion(s) | | Instr. 4) | |
| | | - | Fable II - E | | | | | | | | osed of, onvertil | | | Owned | | | |
| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | Date Execution I | ate, T | Transa Code (I | | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | | 6. Date Exercisable and Expiration Date (Month/Day/Year) | | • | 7. Title and Amor of Securities Underlying Derivative Secur (Instr. 3 and 4) | | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s (Instr. 4) | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |
| | | | | c | Code | v | (A) | (D) | Date Exercisab | | Expiration Date | Title | Amount or Number of Shares | | | | |
| Stock Option (Right to Buy) | \$5.23 | 06/07/2013 | | | A | | 12,500 | | (1) | C | 06/06/2023 | Common Stock | 12,500 | \$0 | 12,500 | D | |

Explanation of Responses:

1. This stock option vests and becomes exercisable in full on the earlier of (i) June 7, 2014 or (ii) the business day immediately preceding the date of the issuer's annual meeting of stockholders that occurs in 2014, provided that the reporting person remains in service as a director on such earlier date.

Remarks:

/s/ Peter A. Zorn, Attorney-in-06/10/2013 Fact for Alan W. Dunton

** Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- * If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.