FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Washington, D.C. 20049

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

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

OMB APPROVAL

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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* | | | | | | 2. Issuer Name and Ticker or Trading Symbol TARGACEPT INC [TRGT] | | | | | | | | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) | | | | |
|--|---|--|---|-------------|--|--|-------|--|---------------|--------|---|--|---|--|--------------------|--|--|--|
| deBethizy J Donald | | | | | | | | | 1 | | | X Director | | | 10% Ow | ner | | |
| (Last) | (Fi | rst) | (Middle) | | Date o | f Earlinet | Trans | eaction (Mon | th/Day/ | /Voar) | _ : | X Officer below) | (give title | | Other (s below) | pecify | | |
| C/O TARGACEPT, INC. | | | | | | 3. Date of Earliest Transaction (Month/Day/Year) 01/09/2009 | | | | | | | | President and CEO | | | | |
| 200 EAST FIRST STREET, SUITE 300 | | | | | | | | | | | | | | | | | | |
| (Street) | | | | | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | 6. Individual or Joint/Group Filing (Check Applicable Line) | | | | | |
| WINSTO | ON- | С | 27101 | | | | | | | | | X Form filed by One Reporting Person | | | | | | |
| SALEM | | | | | | | | | | | | | Form fi Persor | | than | One Repor | ting | |
| (City) | (Si | tate) | (Zip) | | | | | | | | | | | | | | | |
| Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned | | | | | | | | | | | | | | | | | | |
| 1. Title of Security (Instr. 3) 2. Transac Date (Month/Da | | | | | Execution Date | | | Transaction Disposed Code (Instr. 5) | | | ties Acquired (A) or d Of (D) (Instr. 3, 4 a | | 5. Amour Securitie Beneficia Owned F | Form (D) or | | : Direct Indirect str. 4) | 7. Nature of Indirect Beneficial Ownership | |
| | | | | | | | | Code V | / An | mount | (A) or (D) | Price | Reported Transact (Instr. 3 a | ction(s) | | | Instr. 4) | |
| Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) | | | | | | | | | | | | | | | | | | |
| | | | | | , Calls | | | | | | | | | | | | | |
| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date if any (Month/Day/Ye | Code | action (Instr. | | | 6. Date Exercisable and Expiration Date (Month/Day/Year) | | | 7. Title and Amount of Securities Underlying Derivative Security (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) | |
| | | | | Code | v | (A) | (D) | Date Exercisable | Expir Date | ration | Title | Amount or Number of Shares | | | | | | |
| Stock Option (Right to Buy) | \$2.93 | 01/09/2009 | | A | | 65,000 | | (1) | 01/08 | 8/2019 | Common Stock | 65,000 | \$0 | 65,000 | | D | | |

Explanation of Responses:

1. This option vests in equal installments on the last day of 16 consecutive calendar quarters beginning March 31, 2009.

Remarks:

/s/ Peter A. Zorn, Attorney-in-Fact for J. Donald deBethizy

01/13/2009

** 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.