FORM 4

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

OMB APPROVAL
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# 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 Bencherif M	ess of Reporting Pers	son <sup>*</sup>	2. Issuer Name and Ticker or Trading Symbol TARGACEPT INC [ TRGT ]	5. Relationship of Reporting Person(s) to Issuer (Check all applicable)  Director 10% Owner				
	) (First) (Middle) TARGACEPT, INC. EAST FIRST STREET, SUITE 300		3. Date of Earliest Transaction (Month/Day/Year) 12/14/2009	X Officer (give title Other (specify below) VP, Preclinical Research				
(Street) WINSTON- SALEM (City)	NC (State)	27101 (Zip)	4. If Amendment, Date of Original Filed (Month/Day/Year)	Individual or Joint/Group Filing (Check Applicable Line)     X Form filed by One Reporting Person     Form filed by More than One Reporting Person				

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned										
1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)  4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)		5. Amount of Securities Beneficially Owned Following	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership			
			Code	v	Amount	(A) or (D)	Price	Reported Transaction(s) (Instr. 3 and 4)	(1113	(Instr. 4)
Common Stock	12/14/2009		M		7,968	A	\$2.93	15,703	D	
Common Stock	12/14/2009		M		4,967	A	\$8.51	20,670	D	
Common Stock	12/14/2009		S		1,435	D	\$22.443	19,235	D	
Common Stock	12/14/2009		S		6,533	D	\$22.4488	12,702	D	
Common Stock	12/14/2009		S		4,967	D	\$22.4488	7,735	D	
Common Stock	12/15/2009		M		8,056	A	\$8.51	15,791	D	
Common Stock	12/15/2009		S		8,056	D	\$22.1852	7,735	D	

### Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

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/Year)	4. Transa Code ( 8)		of Deri Sec Acq (A) ( Disp of (I	osed 0) ir. 3, 4	6. Date Exercisable and Expiration Date (Month/Day/Year)  7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		Expiration Date		Expiration Date		Amount of Securities Underlying Derivative Security		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	Expiration Date	Title	Amount or Number of Shares								
Stock Option (Right to Buy)	\$2.93	12/14/2009		M			7,968	(1)	01/08/2019	Common Stock	7,968	\$0	34,532	D					
Stock Option (Right to Buy)	\$8.51	12/14/2009		M			4,967	(2)	12/18/2017	Common Stock	4,967	\$0	52,143	D					
Stock Option (Right to Buy)	\$8.51	12/15/2009		M			8,056	(2)	12/18/2017	Common Stock	8,056	\$0	44,087	D					

### **Explanation of Responses:**

- 1. This option vests in equal installments on the last day of 16 consecutive calendar quarters beginning March 31, 2009.
- 2. This option vests in equal installments on the last day of 16 consecutive calendar quarters beginning December 31, 2007.

#### Remarks:

/s/ Peter A. Zorn, Attorney-in-Fact for Merouane Bencherif

12/16/2009

\*\* 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.