

INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

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* <u>BLIXT CHARLES A</u> (Last) (First) (Middle) <u>C/O TARGACEPT, INC.</u> <u>200 EAST FIRST STREET, SUITE 300</u> (Street) <u>WINSTON- SALEM NC 27101</u> (City) (State) (Zip)	2. Date of Event Requiring Statement (Month/Day/Year) <u>04/11/2006</u>	3. Issuer Name and Ticker or Trading Symbol <u>TARGACEPT INC [TRGT]</u>	
		4. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner Officer (give title below) Other (specify below)	5. If Amendment, Date of Original Filed (Month/Day/Year) 6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Beneficially Owned

1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
Common Stock	4,333	I	By R.J. Reynolds Tobacco Holdings, Inc. ⁽¹⁾

Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)		3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)		4. Conversion or Exercise Price of Derivative Security	5. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exercisable	Expiration Date	Title	Amount or Number of Shares			
Series A Convertible Preferred Stock	(2)	(2)	Common Stock	666,666 ⁽³⁾	(3)	I	By R.J. Reynolds Tobacco Holdings Inc. ⁽¹⁾
Series C Convertible Preferred Stock	(2)	(2)	Common Stock	238,095 ⁽⁴⁾	(4)	I	By R.J. Reynolds Tobacco Holdings Inc. ⁽¹⁾
Warrant (Right to Buy)	(5)	(6)	Common Stock	215,054	14.63	I	By R.J. Reynolds Tobacco Holdings Inc. ⁽¹⁾
Stock Option (Right to Buy)	08/08/2003	08/07/2012	Common Stock	4,333	0.075	I	By R.J. Reynolds Tobacco Holdings Inc. ⁽¹⁾
Stock Option (Right to Buy)	06/11/2004	06/10/2013	Common Stock	1,000	0.075	I	By R.J. Reynolds Tobacco Holdings Inc. ⁽¹⁾
Stock Option (Right to Buy)	06/07/2006	(7)	Common Stock	1,000	0.075	I	R.J. Reynolds Tobacco Holdings Inc. ⁽¹⁾

Explanation of Responses:

- The reporting person is the President of R.J. Reynolds Tobacco Holdings, Inc. The reporting person disclaims beneficial ownership of these securities except to the extent of his pecuniary interest therein.
- The convertible preferred stock is convertible at any time, at the holder's election, and will convert automatically upon completion of the issuer's initial public offering. This security has no expiration date.
- Each share of Series A Convertible Preferred Stock is convertible into approximately 0.133 shares of the issuer's common stock. This conversion ratio reflects a 1 for 7.5 share reverse stock split of the issuer's common stock effected February 3, 2005.
- Each share of Series C Convertible Preferred Stock is convertible into approximately 0.144 shares of the issuer's common stock. This conversion ratio reflects a 1 for 7.5 share reverse stock split of the issuer's common stock effected February 3, 2005.
- The warrant is exercisable in whole or in part upon the earliest to occur of (a) the completion of the issuer's initial public offering, and (b) a change in control of the issuer.
- To the extent it is not exercised, the warrant will expire at 11:59 p.m. on the day that it becomes exercisable.
- This stock option expires on the later of (a) the date that is two and one-half months following the end of the first taxable year of R.J. Reynolds Tobacco Holdings, Inc. during which the option vests, or (b) the date that is two and one-half months following the end of the issuer's taxable year in which the option vests, and in no event after March 15, 2007.

Remarks:

/s/ Charles A. Blixt

04/11/2006

** 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 5 (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.

Securities and Exchange Commission
Judiciary Plaza
450 Fifth Street, N.W.
Washington, DC 20549

Re: Targacept, Inc.

Gentlemen:

Pursuant to General Instruction 7 to Form 3 (Initial Statement of Beneficial Ownership), Form 4 (Statement of Changes in Beneficial Ownership) and Form 5 (Annual Statement of Changes in Beneficial Ownership) promulgated by the Securities and Exchange Commission pursuant to Section 16 of the Securities Exchange Act of 1934, the undersigned director, officer and/or shareholder of Targacept, Inc. (the "Company") hereby authorizes and designates Peter A. Zorn, Mauri Hodges, and Alan A. Musso, and each of them, to execute and file with the Commission on his behalf any and all statements on Form 3, Form 4 or Form 5 relating to his beneficial ownership of securities of the Company as required by Section 16(a) of the Securities Exchange Act of 1934 and the rules of the Commission promulgated thereunder. This authorization and designation shall be effective for so long as the undersigned remains subject to the provisions of Section 16 of the Securities Exchange Act of 1934.

Effective as of April 11, 2006.

/s/ Charles A. Blixt
Charles A. Blixt
