

SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

SCHEDULE 13G

(RULE 13D-102)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED  
PURSUANT TO RULES 13D-1(B), (C) AND (D) AND  
AMENDMENTS THERETO FILED PURSUANT TO RULE 13D-2(B)

(AMENDMENT NO.   )\*

TARGACEPT, INC.

(NAME OF ISSUER)

COMMON STOCK, PAR VALUE \$0.01 PER  
SHARE

87611R306

(TITLE OF CLASS OF SECURITIES)

(CUSIP NUMBER)

DECEMBER 31, 2006

(DATE OF EVENT WHICH REQUIRES FILING OF THIS STATEMENT)

CHECK THE APPROPRIATE BOX TO DESIGNATE THE RULE PURSUANT TO WHICH THIS SCHEDULE IS FILED:

- RULE 13D-1(B)  
 RULE 13D-1(C)  
 RULE 13D-1(D)

\*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page. The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

Continued on Following Pages  
Page 1

1 NAME OF REPORTING PERSONS: NOMURA INTERNATIONAL PLC ON BEHALF OF NOMURA PHASE4 VENTURES LP, NOMURA PHASE4 GP LIMITED AND NOMURA PHASE4 VENTURES LIMITED

I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY):

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP:  
(A)   
(B)

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION: ENGLAND AND WALES

NUMBER OF SHARES	5	SOLE VOTING POWER:	2,136,904
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BENEFICIALLY OWNED BY	6	SHARED VOTING POWER:	-0-
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EACH REPORTING	7	SOLE DISPOSITIVE POWER:	2,136,904
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PERSON WITH	8	SHARED DISPOSITIVE POWER:	-0-
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9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:		2,136,904
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10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES:		<input type="checkbox"/>
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11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9): 11.2%		
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12	TYPE OF REPORTING PERSON: CO, 00		
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ITEM 1. NAME OF ISSUER AND ADDRESS OF ISSUER'S PRINCIPAL EXECUTIVE OFFICES

(a) and (b) This Statement on Schedule 13G (the "Schedule 13G") relates to the Common Stock, par value \$0.001 per share (the "Common Stock"), of Targacept, Inc., a Delaware corporation (the "Issuer"). The address of the principal executive offices of the Issuer is 200 East First Street, Suite 300, Winston-Salem, North Carolina, 27101.

ITEM 2. NAME OF PERSON FILING

(a) Name of Persons Filing:

See Item 1 on the cover page. See also Schedule I.

(b) Address of Principal Business Office or, if None, Residence:

The principal business office of each of the Reporting Persons listed in Item 2(a) is as follows:

Nomura House  
1 St Martins - 1e - Grand  
London, EC1A 4NP  
United Kingdom

(c), (d) and (e) For information with respect to citizenship of each of the Reporting Persons, title of class of securities and CUSIP number for the shares held by such persons, see the appropriate cover page above.

ITEM 3. IF THIS STATEMENT IS FILED PURSUANT TO RULE 13D-1(B), OR 13D-2(B) OR (C), CHECK WHETHER THE PERSON FILING IS:

(a)  Broker or dealer registered under Section 15 of the Exchange Act;

(b)  Bank as defined in Section 3(a)(6) of the Exchange Act;

(c)  Insurance company as defined in Section 3(a)(19) of the Exchange Act;

(d)  Investment company registered under Section 8 of the Investment Company Act;

(e)  An investment adviser in accordance with Rule 13d-1(b)(1)(ii)(E);

(f)  An Employee benefit plan or endowment fund in accordance with Rule 13d-1(b)(1)(ii)(F);

(g)  A parent holding company or control person in accordance with Rule 13d-1(b)(1)(ii)(G);

(h)  A Savings association as defined in Section 3(b) of the Federal Deposit Insurance Act;

(i)  A church plan that is excluded from the definition of an investment company under Section 3(c)(14) of the Investment Company Act;

(j)  Group, in accordance with Rule 13d-1(b)(1)(ii)(J).

Not applicable.

ITEM 4. OWNERSHIP

(a) - (c) The response of the Reporting Persons to Items 5 through 11 on the Cover Sheets which relate to the beneficial ownership of the Common Stock of the Issuer is incorporated herein by reference. The percentage ownership of each of the Reporting Persons is based on 19,119,745 shares of Common Stock outstanding as of October 31, 2006, as reported by the Issuer Form 10-Q for the period ending September 30, 2006 filed with the Securities and Exchange Commission on November 13, 2006, and includes, where appropriate, securities not outstanding which are subject to options that are exercisable within 60 days. See also Schedule I.

ITEM 5. OWNERSHIP OF FIVE PERCENT OR LESS OF A CLASS

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of Securities, check the following .

Not applicable.

ITEM 6. OWNERSHIP OF MORE THAN FIVE PERCENT ON BEHALF OF ANOTHER PERSON

Not applicable.

ITEM 7. IDENTIFICATION AND CLASSIFICATION OF THE SUBSIDIARY WHICH ACQUIRED THE SECURITY BEING REPORTED ON BY THE PARENT HOLDING COMPANY

See Schedule I.

ITEM 8. IDENTIFICATION AND CLASSIFICATION OF MEMBERS OF THE GROUP.

Not applicable.

ITEM 9. NOTICE OF DISSOLUTION OF GROUP

Not applicable.

ITEM 10. CERTIFICATION

(a) Not applicable.

(b) By signing below, the undersigned certifies that, to the best of his or its knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

[The remainder of this page intentionally left blank.]

SIGNATURE

After reasonable inquiry and to the best of our knowledge and belief, the undersigned certify that the information set forth in this statement is true, complete and correct.

Date: February 13, 2007

NOMURA INTERNATIONAL PLC

By: /s/ Denise Pollard-Knight

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Name: Denise Pollard-Knight

Title: Head of Nomura Phase 4 Ventures

## SCHEDULE I

This statement is being filed by Nomura International plc ("NI"), a public limited company incorporated under the laws of England and Wales, and on behalf of itself and Nomura Phase4 Ventures LP ("NLP", Nomura Phase4 Ventures GP Limited ("NGP") and Nomura Phase4 Ventures Limited ("NVL") (collectively, the "Reporting Entities"). Each of the Reporting Entities has the address of Nomura House, 1 St Martins-le-Grand, London, EC1A 4NP, United Kingdom. NI owns directly all of the stock of NVL. NVL owns directly all of the stock of NGP. NGP is the general partner of NLP.

At the time of the closing of the Issuer's initial public offering on April 18, 2006 (the "IPO"), NI acquired 1,190,476 shares of Common Stock and NLP acquired 946,428 shares of Common Stock, pursuant to a conversion of securities acquired prior to the IPO.

NI and NGP (as general partner of NLP) have each delegated their investment and voting powers in relation to the securities of the Issuer to NVL.

NI, NGP and NLP each disclaim beneficial ownership of the securities.