
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 8-K

**CURRENT REPORT
PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934**

Date of Report (Date of earliest event reported): January 16, 2007

Idera Pharmaceuticals, Inc.

(Exact name of Registrant as Specified in its Charter)

Delaware
(State or Other Jurisdiction
of Incorporation)

001-31918
(Commission File Number)

04-3072298
(IRS Employer Identification No.)

345 Vassar Street, Cambridge, Massachusetts 02139
(Address of Principal Executive Offices including Zip Code)

Registrant's telephone number, including area code: (617) 679-5500

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (*see* General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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TABLE OF CONTENTS

[Item 1.01. Entry Into a Material Definitive Agreement](#)

[Item 9.01. Financial Statements and Exhibits](#)

[SIGNATURE](#)

[EXHIBIT INDEX](#)

[EX-4.1 Amendment No. 3 to Rights Agreement, dated as of January 16, 2007](#)

Item 1.01. Entry Into a Material Definitive Agreement

Amendment to Rights Agreement

On January 16, 2007, Idera Pharmaceuticals, Inc. (the “Company”) entered into Amendment No. 3 (“Amendment No. 3”) to the Rights Agreement, dated as of December 10, 2001, as amended (the “Rights Agreement”), between the Company and Mellon Investor Services LLC, as Rights Agent.

Amendment No. 3 modifies the definition of Exempted Person under the Rights Agreement to provide that Baker Brothers Investments, together with its affiliates and associates (the “Baker Entities”), will be an Exempted Person under the Rights Agreement until such time as the Baker Entities beneficially own (i) more than 5,375,000 shares of the Company’s common stock (subject to adjustment and disregarding for purposes of the calculation any shares of Common Stock purchased by Baker Entities pursuant to the participation right set forth in the Common Stock Purchase Agreement dated March 24, 2006 by and among the Company, certain Baker Entities and certain other investors named therein) or (ii) less than 14% of the common stock then outstanding once such participation right terminates. Prior to Amendment No. 3, the Rights Agreement provided that the Baker Entities would be deemed an Exempt Person and would not trigger the provisions of the Rights Agreement until such time as it beneficially owned more than 4,375,000 shares of the Company’s common stock (subject to adjustment and disregarding for purposes of the calculation any shares of Common Stock purchased by Baker Entities pursuant to the participation right set forth in the Common Stock Purchase Agreement dated March 24, 2006 by and among the Company, certain Baker Entities and certain other investors named therein). Amendment No. 3 was effected to increase the number of shares of the Company’s Common Stock that the Baker Entities could acquire without triggering the provisions of the Rights Agreement by 1,000,000 shares to a total of 5,375,000 shares.

Amendment No. 3 is attached hereto as Exhibit 4.1 and is incorporated herein by reference. The foregoing description of Amendment No. 3 does not purport to be complete and is qualified in its entirety by reference to such Exhibit.

Item 9.01. Financial Statements and Exhibits

(d) Exhibits

<u>Exhibit No.</u>	<u>Description</u>
4.1	Amendment No. 3 to Rights Agreement, dated as of January 16, 2007, by and between the Company and Mellon Investor Services LLC, as amended.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

IDERA PHARMACEUTICALS, INC.

Date: January 17, 2007

By: /s/ Robert G. Andersen

Robert G. Andersen
Chief Financial Officer and
Vice President of Operations

EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description</u>
4.1	Amendment No. 3 to Rights Agreement, dated as of January 16, 2007, by and between the Company and Mellon Investor Services LLC, as amended.

**AMENDMENT NO. 3
TO
RIGHTS AGREEMENT**

This AMENDMENT NO. 3 TO RIGHTS AGREEMENT (the "Amendment") is entered into as of January 16, 2007, between Idera Pharmaceuticals, Inc., a Delaware corporation (the "Company"), and Mellon Investor Services LLC, a New Jersey limited liability company, as Rights Agent (the "Rights Agent"). Capitalized terms not otherwise defined herein shall have the meanings given them in the Rights Agreement, dated as of December 10, 2001, as amended (the "Rights Agreement"), between the parties hereto.

RECITALS

WHEREAS, the Board has previously determined that it was in the best interest of the Company to amend, and the Company did so amend, the Rights Agreement to modify the definition of Exempted Person to exclude a certain stockholder of the Company from such definition in specified circumstances;

WHEREAS, the Board has determined that it is in the best interest of the Company to further modify such definition of Exempted Person to increase the number of shares such stockholder may hold;

WHEREAS, the address of the General Counsel of the Rights Agent has changed; and

WHEREAS, the Company has determined that the Rights Agreement be amended in accordance with Section 27 of the Rights Agreement, as set forth herein, and the Rights Agent is hereby directed to join in the amendment to the Rights Agreement as set forth herein.

AGREEMENT

NOW THEREFORE, the parties hereto, intending to be legally bound, hereby agree as follows:

1. Section 1(oo) of the Rights Agreement is hereby amended to read in its entirety as follows:

“(oo) “Exempted Person” shall mean Baker Brothers Investments, together with all of its Affiliates and Associates (“Baker Brothers”), unless and until such time as Baker Brothers, directly or indirectly, becomes the Beneficial Owner of more than 5,375,000 shares (subject to appropriate adjustment to reflect any stock split, reverse stock split, stock dividend, combination, reclassification or other similar recapitalization affecting such shares) of the Common Stock (disregarding for purposes of this calculation any shares of Common Stock purchased by Baker Brothers pursuant to the participation right (the “Participation Right”) set forth in Section 5.2 of that certain Common Stock Purchase Agreement, dated March 24, 2006, by and among the Company and the purchasers listed in Exhibit A thereto (the “CSP Agreement”)). Notwithstanding the preceding sentence, if following the date on which its Participation Right terminates in accordance with the CSP Agreement, Baker Brothers, directly or indirectly, is or becomes the Beneficial

Owner of less than 14% of the Common Stock then outstanding, Baker Brothers immediately shall cease to be an Exempted Person. The Company acknowledges that the Rights Agent has no knowledge of the CSP Agreement.”

2. The second paragraph of Section 26 of the Rights Agreement is hereby amended to read as follows:

“Subject to the provisions of Section 21, any notice or demand authorized by this Agreement to be given or made by the Company or by the holder of any Rights Certificate to or on the Rights Agent shall be sufficiently given or made if sent by first-class mail, postage prepaid, addressed (until another address is filed in writing with the Company) or by facsimile transmission as follows as follows:

Mellon Investor Services LLC
111 Founder’s Plaza 11th Floor
East Hartford, CT 06108
Attention: Relationship Manager
Facsimile No.: (860) 528-6472

with a copy to:

Mellon Investor Services LLC
480 Washington Boulevard
Jersey City, NJ 07310
Attention: General Counsel
Facsimile No.: (201) 680-4610”

3. Except as amended hereby, the Rights Agreement shall remain unchanged and shall remain in full force and effect.

4. This Amendment may be executed in any number of counterparts, each of which shall be an original, but all of which together shall constitute one instrument.

5. This Amendment shall be deemed to be a contract made under the laws of the State of Delaware and for all purposes shall be governed by and construed in accordance with the laws of Delaware applicable to contracts made and to be performed entirely within Delaware; provided, however, that all rights, duties and obligations of the Rights Agent shall be governed by and construed in accordance with the laws of the State of New York applicable to contracts made and to be performed entirely within such state.

[remainder of page intentionally left blank]

IN WITNESS WHEREOF, the parties have caused this Amendment to be executed by their respective duly authorized representatives as of the date first above written.

IDERA PHARMACEUTICALS, INC.

By: /s/ SUDHIR AGRAWAL
Name: Sudhir Agrawal
Title: Chief Executive Officer

MELLON INVESTORS SERVICES LLC,
as Rights Agent

By: /s/ JOHN J. BORYCZKI
Name: John J. Boryczki
Title: Client Relationship Executive