### 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): April 23, 2008

# Idera Pharmaceuticals, Inc.

(Exact name of Registrant as Specified in its Charter)

001-31918

(State or Other Jurisdiction of Incorporation)

Delaware

(Commission File Number)

04-3072298 (IRS Employer Identification No.)

02139

Zip Code)

167 Sidney Street, Cambridge, Massachusetts

(Address of Principal Executive Offices)

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))

#### Item 3.02 Unregistered Sales of Equity Securities.

On April 23, 2008, Idera issued 64,723 shares of its common stock to the holders of common stock purchase warrants upon the exercise of those common stock purchase warrants for an exercise price of \$8.00 per share. As a result of the foregoing warrant exercises, Idera issued more than 1% of its outstanding shares of common stock in unregistered transactions upon exercises of warrants since the last periodic report that it filed with the Securities and Exchange Commission.

Including the issuance of the 64,723 shares referred to above, since the last periodic report it filed, Idera has issued a total of 234,040 shares of its common stock in unregistered sales of its equity securities, all of which were issued to holders of warrants in connection with the exercise by such warrant holders of outstanding Idera common stock purchase warrants. Idera issued the 234,040 shares for the following consideration:

- 166,519 shares were issued upon payment of a warrant exercise price of \$5.36 per share;
- 66,007 shares were issued upon the payment of a warrant exercise price of \$8.00 per share; and
- 1,514 shares were issued pursuant to the cashless exercise provisions of the warrants through the surrender of the right to purchase 2,492 shares.

Idera received approximately \$1.4 million of cash proceeds in aggregate upon the exercise of the foregoing warrants.

The issuances of shares of Idera's common stock upon exercise of outstanding warrants described above were exempt from registration under the Securities Act of 1933 pursuant to an exemption from registration under Section 4(2) of the Securities Act of 1933, as amended, Rule 506 of Regulation D promulgated thereunder, and/or Regulation S promulgated thereunder as not involving a public offering. The shares of common stock issued by Idera upon these warrant exercises have been registered for resale by the holders under Idera's Registration Statements on Form S-3, File No. 333-109630 and 333-119943.

#### 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: April 28, 2008

By: /s/ Louis J. Arcudi, III Louis J. Arcudi, III

Chief Financial Officer