IDERA PHARMACEUTICALS, INC. Form S-8 November 16, 2007

As filed with the Securities and Exchange Commission on November 16, 2007 Registration No. 333-\_\_\_\_

## SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549 FORM S-8 REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933 Idera Pharmaceuticals, Inc.

(Exact Name of Registrant as Specified in Its Charter)

#### Delaware

(State or Other Jurisdiction of Incorporation or Organization)

167 Sidney Street Cambridge, Massachusetts (Address of Principal Executive Offices) 2005 Stock Incentive Plan

> Sudhir Agrawal, D. Phil. Chief Executive Officer Idera Pharmaceuticals, Inc. 167 Sidney Street Cambridge, Massachusetts 02139 (Name and Address of Agent For Service)

(Full Title of the Plan)

#### (617) 679-5500

(Telephone Number, Including Area Code, of Agent For Service) CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered(1)	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, \$0.001 par value per share (including the associated Preferred Stock Purchase Rights)	1,500,000 shares	\$11.94 (2)	\$17,910,000 (2)	\$550.00
(1) In accordance with Rule 416 under the				

under the Securities Act of 1933, as amended, this registration statement shall

## 04-3072298 (I.R.S. Employer Identification No.)

**02139** (Zip Code)

2

be deemed to cover any additional securities that may from time to time be offered or issued to prevent dilution resulting from stock splits, stock dividends or similar transactions.

(2) Estimated solely for the purpose of calculating the registration fee pursuant to Rules 457(c) and 457(h) of the Securities Act of 1933, as amended, and based upon the average of the high and low prices of the Registrant s common stock as reported on the American Stock Exchange on November 14, 2007.

# TABLE OF CONTENTS

Item 5. Interests of Named Experts and Counsel Item 8. Exhibits SIGNATURES INDEX TO EXHIBITS

## STATEMENT OF INCORPORATION BY REFERENCE

This Registration Statement on Form S-8 is filed to register the offer and sale of an additional 1,500,000 shares of the Registrant s common stock, \$0.001 par value per share, to be issued under the Registrant s 2005 Stock Incentive Plan. This Registration Statement incorporates by reference the contents of the registration statements on form S-8, File No. 333-126664 and File No. 333-137688, filed by the Registrant on July 18, 2005 and September 29, 2006, relating to the Registrant s 2005 Stock Incentive Plan.

## Item 5. Interests of Named Experts and Counsel.

Wilmer Cutler Pickering Hale and Dorr LLP has opined as to the legality of the securities being offered by this registration statement.

## Item 8. Exhibits.

The Exhibit Index immediately preceding the exhibits is incorporated herein by reference.

- 1 -

#### SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Cambridge, Massachusetts, on November 16, 2007.

Idera Pharmaceuticals, Inc.

By: /s/ Sudhir Agrawal Sudhir Agrawal, D. Phil. Chief Executive Officer

## POWER OF ATTORNEY AND SIGNATURES

We, the undersigned officers and directors of Idera Pharmaceuticals, Inc., hereby severally constitute and appoint Sudhir Agrawal and Robert W. Karr and each of them singly, our true and lawful attorneys with full power to them, and each of them singly, to sign for us and in our names in the capacities indicated below, the registration statement on Form S-8 filed herewith and any and all subsequent amendments to said registration statement, and generally to do all such things in our names and on our behalf in our capacities as officers and directors to enable Idera Pharmaceuticals, Inc. to comply with the provisions of the Securities Act of 1933, as amended, and all requirements of the Securities and Exchange Commission, hereby ratifying and confirming our signatures as they may be signed by our said attorneys, or any of them, to said registration statement and any and all amendments thereto.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ James B. Wyngaarden	Chairman of the Board of Directors	November 16, 2007
James B. Wyngaarden, M.D.		
/s/ Sudhir Agrawal	Chief Executive Officer, Chief Scientific	November 16,
-	Officer and Director (Principal Executive	2007
Sudhir Agrawal, D. Phil.	Officer)	
/s/ Robert W. Karr	President and Director	November 16, 2007
Robert W. Karr, M.D.		
/s/ Donna A. Lopolito	Interim Chief Financial Officer (Principal Financial and Accounting Officer)	November 16, 2007
Donna A. Lopolito, C.P.A.	-	
/s/ Youssef El-Zein	Director	November 16, 2007
Youssef El-Zein		
	- 2 -	

Signature /s/ C. Keith Hartley	Title	Date November 16, 2007
C. Keith Hartley	Director	
Hans Mueller /s/ William S. Reardon	Director	November 16, 2007
William S. Reardon, C.P.A. /s/ Alison Taunton-Rigby	Director	November 16, 2007
Alison Taunton-Rigby, Ph.D.	- 3 -	

## INDEX TO EXHIBITS

EXHIBIT NUMBER	DESCRIPTION
4.1 (1)	Rights Agreement dated December 10, 2001 between the Registrant and Mellon Investor Services LLC, as rights agent.
4.2 (2)	Amendment No. 1 to Rights Agreement dated as of August 27, 2003 between the Registrant and Mellon Investor Services LLC.
4.3 (3)	Amendment No. 2 to Rights Agreement dated as of March 24, 2006 between the Registrant and Mellon Investor Services LLC.
4.4 (4)	Amendment No. 3 to Rights Agreement, dated as of January 16, 2007 between the Registrant and Mellon Investor Services LLC.
5.1	Opinion of Wilmer Cutler Pickering Hale and Dorr LLP.
23.1	Consent of Ernst & Young LLP.
23.2	Consent of Wilmer Cutler Pickering Hale and Dorr LLP, included in Exhibit 5.1 filed herewith.
24.1	Power of Attorney (See signature page of this Registration Statement).

(1) Previously filed with the Securities and Exchange Commission as an Exhibit to the Registrant s Registration Statement on Form S-2, dated October 10, 2003 (File No. 333-109630) and incorporated herein by reference.

 Previously filed with the Securities and Exchange Commission as an Exhibit to the

Registrant s Current Report on Form 8-K, dated August 29, 2003 (File No. 000-27352) and incorporated herein by reference. (3) Previously filed with the Securities and Exchange Commission as an Exhibit to the Registrant s Current Report on Form 8-K, dated March 29, 2006 (File No. 001-31918) and incorporated herein by reference. (4) Previously filed with the Securities and Exchange Commission as an Exhibit to the Registrant s Current Report on Form 8-K, dated January 17, 2007 (File

No. 001-31918) and incorporated

herein by reference.