IDERA PHARMACEUTICALS, INC.

Form S-8

September 29, 2006

As filed with the Securities and Exchange Commission on September 29, 2006

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)

Delaware04-3072298(State or Other Jurisdiction of<br/>Incorporation or Organization)(I.R.S. Employer<br/>Identification No.)

345 Vassar Street Cambridge, Massachusetts **02139** (Zip Code)

(Address of Principal Executive Offices)

1995 Employee Stock Purchase Plan

(Full Title of the Plan)

Sudhir Agrawal, D. Phil.

Chief Executive Officer Idera Pharmaceuticals, Inc.

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345 Vassar Street Cambridge, Massachusetts 02139

(Name and Address of Agent For Service)

(617) 679-5500

(Telephone Number, Including Area Code, of Agent For Service)

#### **CALCULATION OF REGISTRATION FEE**

		Proposed			
		Maximum	Proposed		
	Amount	Offering	Maximum	Amount of	
Title of Securities	to be	Price	Aggregate	Registration	
to be Registered	Registered(1)	Per Share	Offering Price	Fee	
Common Stock, \$0.001 par value per share					
(including the associated Preferred Stock	62,500				
Purchase Rights)	shares	\$3.43(2)	\$214,375(2)	\$22.94	

(1) In accordance with Rule 416 under the Securities Act of 1933, as amended, this registration statement shall

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 September 26, 2006.

#### STATEMENT OF INCORPORATION BY REFERENCE

This Registration Statement on Form S-8 is filed to register the offer and sale of an additional 62,500 shares of the Registrant s common stock, \$0.001 par value per share, to be issued under the Registrant s 1995 Employee Stock Purchase Plan. This Registration Statement incorporates by reference the contents of the registration statements on form S-8, File Nos. 333-03896 and 333-116011, filed by the Registrant on April 23, 1996 and May 28, 2004, relating to the Registrant s 1995 Employee Stock Purchase 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.

#### **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 September 21, 2006.

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 Robert G. Andersen and Sudhir Agrawal, 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.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
/s/ James B. Wyngaarden	Chairman of the Board of Directors	September 21, 2006
James B. Wyngaarden, M.D.		
/s/ Sudhir Agrawal	Chief Executive Officer, Chief Scientific Officer and Director	September 21, 2006
Sudhir Agrawal, D. Phil.	(Principal Executive Officer)	
/s/ Robert W. Karr	President and Director	September 21, 2006
Robert W. Karr, M.D.		
/s/ Robert G. Andersen	Chief Financial Officer, Vice	September 21, 2006
Robert G. Andersen	President of Operations, Treasurer and Secretary (Principal Financial and Accounting Officer)	
/s/ Youssef El-Zein	Director	September 21, 2006
Youssef El-Zein	-2-	
	-2-	

<u>Signature</u>	<u>Title</u>	<u>Date</u>
/s/ C. Keith Hartley	Director	September 21, 2006
C. Keith Hartley		
/s/ William S. Reardon	Director	September 21, 2006
William S. Reardon		
/s/ Alison Taunton-Rigby	Director	September 21, 2006
Alison Taunton-Rigby, Ph.D.	-3-	

#### INDEX TO EXHIBITS

EXHIBIT NUMBER	<u>DESCRIPTION</u>
4.1 (1)	Restated Certificate of Incorporation of the Registrant, as amended.
4.2 (2)	Amended and Restated By-laws of the Registrant.
4.3 (3)	Rights Agreement dated December 10, 2001 between the Registrant and Mellon Investor Services LLC, as rights agent.
4.4 (4)	Amendment No. 1 to Rights Agreement dated as of August 27, 2003 between the Registrant and Mellon Investor Services LLC.
4.5 (5)	Amendment No. 2 to Rights Agreement dated as of March 24, 2006 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

Quarterly Report

on Form 10-Q,

for the quarter

ended June 30,

2006 (File No.

001-31918) and

incorporated

herein by

reference.

## (2) Previously filed

with the

Securities and

Exchange

Commission as

an Exhibit to the

Registrant s Registration Statement on Form S-1, dated November 6, 1995, as amended (File No. 33-99024) and incorporated herein by reference.

- (3) 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.
- (4) 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.
- (5) 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.