#### UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934 (Amendment No. )\*

IDERA PHARMACEUTICALS, INC.

(Name of Issuer)

Common Stock, \$0.001 per share (Title of Class of Securities)

> 45168K306 (CUSIP Number)

August 4, 2010 (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) [X] Rule 13d-1(c) [ ] Rule 13d-1(d)

The information required on 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 ("Act") 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).

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<sup>\*</sup>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.

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Names of Reporting Persons

SENATOR INVESTMENT GROUP LP

Check the Appropriate Box If a Member of a Group (See Instructions)

- 3 SEC Use Only
- Citizenship or Place of Organization

## DELAWARE

	5	Sole Voting Power
Number of		3,234,505*
Shares		
Beneficially	6	Shared Voting Power
Owned By		0
Each		
Reporting	7	Sole Dispositive Power
Person		3,234,505*
With		
	8	Shared Dispositive Power

Aggregate Amount Beneficially Owned by Each Reporting Person

3,234,505\*

Check Box If the Aggregate Amount in Row (9) Excludes Certain 10 Shares (See Instructions)

[]

Percent of Class Represented By Amount in Row (9) 11

11.73%

12 Type of Reporting Person (See Instructions)

ΙA

The Reporting Person also holds warrants exercisable into 1,293,802 shares of common stock. The warrants may be exercised so long as the Reporting Person holds no more than 4.99% of the number of shares of common stock outstanding after such exercise. The limit may be increased to 9.99% upon no less than 61 days notice to the Issuer.

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Item 1(a) Name of Issuer:

Idera Pharmaceuticals, Inc. (the "Issuer").

Item 1(b) Address of the Issuer's Principal Executive Offices:

167 Sydney Street

Cambridge, Massachusetts 02139

Name of Person Filing Item 2(a)

Senator Investment Group LP

Address of Principal Business Office or, if None, Residence: Item 2(b)

The principal office of Senator Investment Group LP is:

1330 Avenue of the Americas 26th Floor New York, NY 10019

Item 2(c) Citizenship:

Senator Investment Group LP is a Delaware limited partnership.

Item 2(d) Title of Class of Securities:

Common Stock, \$0.001 Par Value

Item 2(e) **CUSIP Number:** 

45168K306

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:

Not applicable.

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## Item 4. Ownership:

(a) Amount beneficially owned: 3,234,505\*

(b) Percent of class: 11.73%

- (c) Number of shares as to which such person has:
- (i) Sole power to vote or to direct the vote:

3,234,505\*

(ii) Shared power to vote or to direct the vote:

0

(iii) Sole power to dispose or to direct the disposition of:

3,234,505\*

(iv) Shared power to dispose or to direct the disposition of:

0

Senator Investment Group LP, a Delaware limited partnership, serves as investment manager to two Delaware limited partnerships, four Cayman Islands limited partnerships, and a Cayman Islands company (collectively, the "Funds"), and as such, has investment discretion with respect to the Funds.

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<sup>\*</sup> The Reporting Person also holds warrants exercisable into 1,293,802 shares of common stock. The warrants may be exercised so long as the Reporting Person holds no more than 4,99% of the number of shares of common stock outstanding after such exercise. The limit may be increased to 9,99% upon no less than 61 days notice to the Issuer.

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## Item 5. Ownership of Five Percent or Less of a Class:

Not applicable.

## Item 6. Ownership of More than Five Percent on Behalf of Another Person:

The partners of the Funds have the right to participate in the receipt of dividends from, or proceeds from the sale of, the securities reported herein held by the Funds in accordance with their respective ownership interests in the Funds.

Senator Investment Group LP disclaims beneficial ownership of the securities included in this report and this report shall not be deemed an admission that Senator Investment Group LP is the beneficial owner of such securities for purposes of Section 16 or for any other purpose.

## Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company:

Not applicable.

# Item 8. Identification and Classification of Members of the Group:

Not applicable.

## Item 9. Notice of Dissolution of Group:

Not applicable.

#### Item 10. Certification:

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and 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 such purpose or effect.

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## SIGNATURE

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

Dated as of August 12, 2010 SENATOR INVESTMENT GROUP LP

By: Edward Larmann Chief Financial Officer

By: /s/ Edward Larmann