

IDERA PHARMACEUTICALS, INC.

Form 4/A

April 23, 2012

FORM 4

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

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person *
Senator Investment Group LP

2. Issuer Name and Ticker or Trading Symbol
IDERA PHARMACEUTICALS, INC. [IDRA]

5. Relationship of Reporting Person(s) to Issuer
(Check all applicable)

(Last) (First) (Middle)
510 MADISON AVENUE, 28TH FLOOR
(Street)

3. Date of Earliest Transaction (Month/Day/Year)
04/19/2012

____ Director
____ Officer (give title below)
 10% Owner
____ Other (specify below)

NEW YORK, NY 10022

4. If Amendment, Date Original Filed(Month/Day/Year)
08/12/2010

6. Individual or Joint/Group Filing(Check Applicable Line)
 Form filed by One Reporting Person
 Form filed by More than One Reporting Person

(City) (State) (Zip)

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) | 4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Ownership (Instr. 4) | | |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|--|-----------------------------------|---|----------------------|
| | | | | Code V | Amount | (A) or (D) | Price | | |
| Common Stock | 04/19/2012 | | S | 37,000 | D | \$ 2.01 | 2,843,000 | I | See Footnote (1) (2) |
| Common Stock | 04/20/2012 | | S | 27,300 | D | \$ 2 | 2,815,700 | I | See Footnote (1) (2) |

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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