

Arbeit Robert D.  
Form 3  
April 07, 2010

**FORM 3 UNITED STATES SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D.C. 20549**

OMB APPROVAL

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**INITIAL STATEMENT OF 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 *      |         | 2. Date of Event Requiring Statement | 3. Issuer Name <b>and</b> Ticker or Trading Symbol                         |  |
| Arbeit Robert D.                               |         | (Month/Day/Year)                     | IDERA PHARMACEUTICALS, INC. [IDRA]   |  |
| (Last)   | (First) | (Middle)                             | 04/07/2010   |  |
| IDERA PHARMACEUTICALS, INC., 167 SIDNEY STREET |         |                                      | 4. Relationship of Reporting Person(s) to Issuer                           | 5. If Amendment, Date Original Filed(Month/Day/Year)                   |
| (Street)                                       |         |                                      | (Check all applicable)   |  |
| CAMBRIDGE, MA 02139                            |         |                                      | <input type="checkbox"/> Director <input type="checkbox"/> 10% Owner       | 6. Individual or Joint/Group Filing(Check Applicable Line)             |
| (City)   | (State) | (Zip)                                | <input checked="" type="checkbox"/> Officer <input type="checkbox"/> Other | <input checked="" type="checkbox"/> Form filed by One Reporting Person |
|  |         |                                      | (give title below) (specify below)   | <input type="checkbox"/> Form filed by More than One Reporting Person  |
|  |         |                                      | VP Clinical Development  |  |

**Table I - Non-Derivative Securities Beneficially Owned**

|                                 |   |  |   |
|---------------------------------|---|--|---|
| 1. Title of Security (Instr. 4) | 2. Amount of Securities Beneficially Owned (Instr. 4) | 3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5) | 4. Nature of Indirect Beneficial Ownership (Instr. 5) |
|---------------------------------|---|--|---|

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

SEC 1473 (7-02)

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**Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)**

|  |  |   |  |  |   |
|--|--|---|--|--|---|
| 1. Title of Derivative Security (Instr. 4) | 2. Date Exercisable and Expiration Date (Month/Day/Year) | 3. Title and Amount of Securities Underlying Derivative Security (Instr. 4) | 4. Conversion or Exercise Price of Derivative Security | 5. Ownership Form of Derivative Security: Direct (D) or Indirect (I) | 6. Nature of Indirect Beneficial Ownership (Instr. 5) |
|  | Date Exercisable      Expiration Date                    | Title      Amount or Number of Shares                                       |  |  |   |

(Instr. 5)

|               |       |            |                 |        |         |   |   |
|---------------|-------|------------|-----------------|--------|---------|---|---|
| Stock Options | Â (1) | 08/03/2019 | Common<br>Stock | 40,000 | \$ 6.43 | D | Â |
| Stock Options | Â (2) | 12/23/2019 | Common<br>Stock | 17,000 | \$ 5.24 | D | Â |

## Reporting Owners

| Reporting Owner Name / Address  | Relationships |           |                              |       |
|---|---------------|-----------|------------------------------|-------|
|   | Director      | 10% Owner | Officer                      | Other |
| Arbeit Robert D.<br>IDERA PHARMACEUTICALS, INC.<br>167 SIDNEY STREET<br>CAMBRIDGE, MA 02139 | Â             | Â         | Â VP Clinical<br>Development | Â     |

## Signatures

/s/ Robert D.  
Arbeit 04/07/2010

\_\_Signature of  
Reporting Person

Date

## Explanation of Responses:

- \* If the form is filed by more than one reporting person, *see* Instruction 5(b)(v).
- \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

- (1) The options vest in equal quarterly installments over four years, beginning on August 3, 2009.
- (2) The options vest in equal quarterly installments over four years, beginning on December 23, 2009.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *See* Instruction 6 for procedure.  
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