

| OMB APPROVAL | |
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| Estimated average burden hours per response: | 0.5 |

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

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| | | |
|--|---|---|
| 1. Name and Address of Reporting Person* <u>Baker Bros. Capital (GP), LLC</u> (Last) (First) (Middle) 667 MADISON AVENUE 17TH FLOOR (Street) NEW YORK NY US 10021 (City) (State) (Zip) | 2. Issuer Name and Ticker or Trading Symbol <u>IDERA PHARMACEUTICALS, INC. [IDP]</u> | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director <input checked="" type="checkbox"/> 10% Owner Officer (give title below) Other (specify below) |
| | 3. Date of Earliest Transaction (Month/Day/Year) 01/07/2008 | |
| 4. If Amendment, Date of Original Filed (Month/Day/Year) | | |

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 Indirect Beneficial Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|------------|-----------|---|--|---|
| | | | Code | V | Amount | (A) or (D) | Price | | | |
| Common Stock ⁽¹⁾⁽²⁾ | 01/07/2008 | | S ⁽³⁾ | | 5 | D | \$13 | 89,717 | I | Through Partnership ⁽⁶⁾ |
| Common Stock ⁽¹⁾⁽²⁾ | 01/08/2008 | | S ⁽⁴⁾ | | 5 | D | \$13 | 89,712 | I | Through Partnership ⁽⁷⁾ |
| Common Stock ⁽¹⁾⁽²⁾ | 01/09/2008 | | S ⁽⁵⁾ | | 212 | D | \$13.0008 | 89,500 | I | Through Partnership ⁽⁸⁾ |

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) | | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | 6. Date Exercisable and Expiration Date (Month/Day/Year) | | 7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4) | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |
|--|--|--------------------------------------|--|--------------------------------|---|--|--|-----------------|---|--|--|---|--|
| | | | | Code | V | | Date Exercisable | Expiration Date | | | | | |

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| 1. Name and Address of Reporting Person* <u>Baker Bros. Capital (GP), LLC</u> (Last) (First) (Middle) 667 MADISON AVENUE 17TH FLOOR (Street) NEW YORK NY US 10021 (City) (State) (Zip) | | |
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| | | |
|---|---------|----------|
| 1. Name and Address of Reporting Person * | | |
| BAKER JULIAN | | |
| (Last) | (First) | (Middle) |
| 667 MADISON AVENUE, 17TH FLOOR | | |
| (Street) | | |
| NEW YORK | NY | US 10021 |
| (City) | | |
| (State) | (Zip) | |
| 1. Name and Address of Reporting Person * | | |
| BAKER FELIX | | |
| (Last) | (First) | (Middle) |
| 667 MADISON AVENUE, 17TH FLOOR | | |
| (Street) | | |
| NEW YORK | NY | US 10021 |
| (City) | | |
| (State) | (Zip) | |

Explanation of Responses:

1. In addition to Baker Bros. Capital (GP), LLC, this Form 4 is being filed jointly by Felix J. Baker and Julian C. Baker, each of whom has the same business address as Baker Bros. Capital (GP), LLC and may be deemed to have a pecuniary interest in securities owned by it. Because of certain relationships with other security holders of the Issuer, the Reporting Persons are filing solely for informational purposes as if they were members of a group with such shareholders.(Continued in footnote 2).
2. However, the Reporting Persons disclaim that they and any other person or persons in fact constitute a "group" for purposes of Section 13(d)(3) of the Securities Exchange Act of 1934, as amended, or Rule 13d 5 thereunder or that they are the beneficial owner of securities owned by such other persons, and each of them disclaims beneficial ownership of securities reported herein except to the extent of their pecuniary interest, if any, therein.
3. Represents 2 shares sold by Baker Bros. Investments II, L.P. and 3 shares sold by Baker Bros. Investments, L.P.
4. Represents 2 shares sold by Baker Bros. Investments II, L.P. and 3 shares sold by Baker Bros. Investments, L.P.
5. Represents 101 shares sold by Baker Bros. Investments II, L.P. and 111 shares sold by Baker Bros. Investments, L.P.
6. Represents shares 42,591 shares owned directly by Baker Bros. Investments II, L.P. and 47,126 shares owned directly by Baker Bros. Investments, L.P., limited partnerships of which the sole general partner is Baker Bros. Capital, L.P., a limited partnership of which the sole general partner is Baker Bros. Capital (GP), LLC. Felix J. Baker and Julian C. Baker are controlling members of Baker Bros. Capital (GP), LLC.
7. Represents shares 42,589 shares owned directly by Baker Bros. Investments II, L.P. and 47,123 shares owned directly by Baker Bros. Investments, L.P., limited partnerships of which the sole general partner is Baker Bros. Capital, L.P., a limited partnership of which the sole general partner is Baker Bros. Capital (GP), LLC. Felix J. Baker and Julian C. Baker are controlling members of Baker Bros. Capital (GP), LLC.
8. Represents shares 42,488 shares owned directly by Baker Bros. Investments II, L.P. and 47,012 shares owned directly by Baker Bros. Investments, L.P., limited partnerships of which the sole general partner is Baker Bros. Capital, L.P., a limited partnership of which the sole general partner is Baker Bros. Capital (GP), LLC. Felix J. Baker and Julian C. Baker are controlling members of Baker Bros. Capital (GP), LLC.

| | |
|--|----------------------------|
| /s/ Julian C. Baker, as Managing Member of Baker Bros. Capital (GP), LLC | 01/09/2008 |
| /s/ Julian C. Baker | 01/09/2008 |
| /s/ Felix J. Baker | 01/09/2008 |
| ** Signature of Reporting Person | Date |

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

* If the form is filed by more than one reporting person, see Instruction 4 (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).

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

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.