FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

OMB APPROVAL OMB Number: 3235-0287 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 [*] Baker Bros. Capital (GP), LLC (Last) (First) (Middle) | | | | IDE IDP] | 2. Issuer Name and Ticker or Trading Symbol IDERA PHARMACEUTICALS, INC. [IDP] 3. Date of Earliest Transaction (Month/Day/Year) | | | | | | | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director X 10% Owner Officer (give title Other (specify below) below) | | | | | | | | |
|---|---|------|---|---|--|------------------------------|--------|--|---------------|--|--|---|-----------|--|--|--|--|---|--|--|
| 667 MADISON AVENUE 17TH FLOOR | | | | | 01/10/2008 | | | | | | | | | | , | | | | | |
| (Street) NEW YORK NY US 10021 (City) (State) (Zip) | | | | 4. If A | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | 6. Individual or Joint/Group Filing (Check Applicable Line) Form filed by One Reporting Person X Form filed by More than One Reporting Person | | | | | | | | |
| | | Tabl | e I - Non-Deriv | ative S | Seci | uritie | s Ac | auir | red. D | Disposed | of. o | r Benef | icia | ally Own | ed | | | | | |
| 1. Title of Security (Instr. 3) | | | 2. Transaction Date (Month/Day/Year | 2A. Deem Execution | | ned 3. n Date, Tra Coo | | Transaction Code (Instr. | | 4. Securities Acquired (A) Disposed Of (D) (Instr. 3, 5) | | ired (A) or | | 5. Amoun Securities Beneficial Owned Following | t of i lly | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | | 7. Nature of Indirect Beneficial Ownership (Instr. 4) | | |
| | | | | | | Cod | Code V | | Amount | (A) or (D) | Price | | Transacti | Reported Transaction(s) (Instr. 3 and 4) | | | | | | |
| Common Stock ⁽¹⁾⁽²⁾ 01/10 | | | | | | | S | (3) | | 42 | D | \$13.00 | 28 | 89,45 | 89,458 ⁽⁴⁾ | | Ι | | Through Partnership ⁽⁴⁾ | |
| 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 | Date | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) | | | | 6. Date Exercis Expiration Dat (Month/Day/Ye | | n Date | and 7. Title and Amount of Securities Underlying Derivative Security (Ins 3 and 4) | | ir. | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | | 10. Owners Form: Direct or Indi (I) (Inst 4) | ship (D) rect | 11. Nature of Indirect Beneficial Ownership (Instr. 4) | |
| | | | | Code | v | (A) | (D) | Date Exe | te ercisab | Expirati le Date | on Tit | Amou or Numb of Ie Share | ber | | | | | | | |
| 1. Name and Address of Reporting Person [*] Baker Bros. Capital (GP), LLC | | | | | | | | | | | | | | | | | | | | |
| (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 JULIAN | | | | | | | | | | | | | | | | | | | | |
| (Last) (First) (Middle) 667 MADISON AVENUE, 17TH FLOOR | | | | | | | | | | | | | | | | | | | | |
| (Street) NEW YORK NY | | | US 10021 | | | | | | | | | | | | | | | | | |
| (City) (State) (Zip) | | | | | | | | | | | | | | | | | | | | |

| 1. Name and Addres BAKER FELI | | Person [*] | | | | | |
|--------------------------------|---------|---------------------|--|--|--|--|--|
| (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 20 shares sold by Baker Bros. Investments II, L.P. and 22 shares sold by Baker Bros. Investments, L.P.

4. Represents shares 42,468 shares owned directly by Baker Bros. Investments II, L.P. and 46,990 shares owned directly by Baker Bros. Investments, L.P., limited partnerships 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.

| <u>/s/ Julian C. Baker, as</u> | |
|----------------------------------|------------|
| Managing Member of Baker | 01/14/2008 |
| Bros. Capital (GP), LLC | |
| /s/ Julian C. Baker | 01/14/2008 |
| /s/ Felix J. Baker | 01/14/2008 |
| ** 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.