FORM 4

## **UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

| OMB APPROVAL          |           |  |  |  |  |
|-----------------------|-----------|--|--|--|--|
| OMB Number:           | 3235-0287 |  |  |  |  |
| Estimated average bur | den       |  |  |  |  |
| 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

| Name and Address of Reporting Person*     Baker Bros. Capital (GP), LLC |   |  | 2. Issuer Name and Ticker or Trading Symbol  IDERA PHARMACEUTICALS, INC. [ (Check all applicable) |                                  |  |   |   |             |  |                                       |   |                                  | ssuer  |  |  |                     |  |                  |  |  |
|---|---|--|---|----------------------------------|--|---|---|-------------|--|---------------------------------------|---|----------------------------------|--|--|--|---------------------|--|------------------|--|--|
| Daker DIUS, Capital (GP), LLC   |   |  |   | IDP ]                            | I  |   |   |             |  |                                       |   |                                  |  | Director X 10% Owner   |  |                     |  |                  |  |  |
| (Last) (First) (Middle)<br>667 MADISON AVENUE 17TH FLOOR                |   |  |   |                                  | 3. Date of Earliest Transaction (Month/Day/Year) Delow |   |   |             |  |                                       |   |                                  |  |  | specify  |                     |  |                  |  |  |
|   |   |  |   | 4. If Ar                         | 4. If Amendment, Date of Original Filed (Month/Day/Year)  6. Individual or Joint/Group Filing (Check Applical  |   |   |             |  |                                       |   |                                  |  |  | pplicable  |                     |  |                  |  |  |
| (Street) NEW YORK NY US 10021   |   |  |   |                                  | Line)  Form filed by One Reporting Person  X  Person   |   |   |             |  |                                       |   |                                  |  |  |  |                     |  |                  |  |  |
| (City) (State) (Zip)  |   |  |   |                                  | Person   |   |   |             |  |                                       |   |                                  |  |  |  |                     |  |                  |  |  |
|   |   | Table                                      | e I - Non-Deriv   | ative S                          | ecı  | urities                                 | s Acc                                   | quir        | ed,                                      | Disposed                              | of, o   | r Bene                           | fici   | ally Own   | ed   |                     |  |                  |  |  |
| 1. Title of Security (Instr. 3)   |   | 2. Transaction<br>Date<br>(Month/Day/Year  | 2A. Deeme<br>Execution<br>if any<br>(Month/Da   |                                  | Date,  | 3.<br>Transaction<br>Code (Instr.<br>8) |   |             | 4. Securities Ad<br>Disposed Of (D<br>5) |                                       |   |                                  | 5. Amoun<br>Securities<br>Beneficial<br>Owned                | lly  | 6. Ownership<br>Form: Direct<br>(D) or<br>Indirect (I) |                     | Indire<br>Bene<br>Owne   | ficial<br>ership |  |  |
|   |   |  |   |                                  |  | Cod                                     | e                                       | v           | Amount                                   | (A)<br>or<br>(D)                      | Price   |                                  | Following<br>Reported<br>Transaction(s)<br>(Instr. 3 and 4)  |  | (Instr. 4)   |                     | (Instr. 4)   |                  |  |  |
| Common  | Stock <sup>(1)(2)</sup>   |  | 12/10/2007  |                                  |  | s <sup>(3)</sup> 602 D                  |   | \$12.3      | 2.3641 94,9                              |                                       | 961   |                                  | [  | Through<br>Partnership <sup>(6)</sup>  |  |                     |  |                  |  |  |
| Common Stock <sup>(1)(2)</sup>  |   | 12/11/2007                                 |   |                                  |  | S <sup>(4</sup>                         |   |             | 265                                      | D                                     | \$12.2527   |                                  | 94,696   |  | I  |                     | Through<br>Partnership <sup>(7)</sup>                              |                  |  |  |
| Common Stock <sup>(1)(2)</sup> 12/12/2007                               |   |  | 12/12/2007  |                                  |  | S                                       | 5)                                      |             | 5  | D                                     | \$12.25   |                                  | 94,691   |  | I  |                     | Through<br>Partnership <sup>(8)</sup>                              |                  |  |  |
|   |   | Та   | ble II - Derivat<br>(e.g., p  |                                  |  |   |   |             |  | sposed of                             |   |                                  |  | y Owned  |  |                     |  |                  |  |  |
| 1. Title of<br>Derivative<br>Security<br>(Instr. 3)                     | 2.<br>Conversion<br>or Exercise<br>Price of<br>Derivative<br>Security | 3. Transaction<br>Date<br>(Month/Day/Year) | 3A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year)                                       | 4.<br>Transact<br>Code (In<br>8) | tion   | 5. Nu<br>of                             | mber<br>ative<br>rities<br>ired<br>osed | 6. D        | Date E                                   | xercisable an<br>on Date<br>Day/Year) | Oate Amount of Securities Derivative Security (Instr. 5) Gradulties Securities |                                  | derivati<br>Securit<br>Benefic<br>Owned<br>Followi<br>Report | urities   Form   Direct   or In   (I) (In   t) (In   t)   (In   t) |  | ship<br>(D)<br>rect | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |                  |  |  |
|   |   |  |   | Code                             | v  | (A)                                     | (D)                                     | Date<br>Exe | e<br>ercisa                              | Expiration Date                       | on Tit  | Amo<br>or<br>Num<br>of<br>e Shar | ber  |  |  |                     |  |                  |  |  |
| ı   |   | Reporting Person*                          |   |                                  |  |   |   |             |  |                                       |   |                                  |  |  |  |                     |  |                  |  |  |
| <u>Baker</u>  | Bros. Ca  | pital (GP), Ll                             | <u>_C</u>   |                                  |  |   |   |             |  |                                       |   |                                  |  |  |  |                     |  |                  |  |  |
| (Last)  |   | (First)<br>ENUE 17TH FLC                   | (Middle)  |                                  |  |   |   |             |  |                                       |   |                                  |  |  |  |                     |  |                  |  |  |
| (Street) NEW YO   | ORK   | 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 Addre                                      |              | rson*    |  |  |  |  |  |
| (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. Felix J. Baker and Julian C. Baker are directors of the Issuer. Because of certain business and family 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 security holders. (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 declares beneficial ownership of securities reported herein except to the extent of their pecuniary interest, if any, therein.
- 3. Represents 286 shares sold by Baker Bros. Investments II, L.P. and 316 shares sold by Baker Bros. Investments, L.P.
- 4. Represents 126 shares sold by Baker Bros. Investments II, L.P. and 139 shares sold by Baker Bros. Investments, L.P.
- 5. Represents 2 shares sold by Baker Bros. Investments II, L.P. and 3 shares sold by Baker Bros. Investments, L.P.
- 6. Represents shares 45,080 shares owned directly by Baker Bros. Investments II, L.P. and 49,881 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 44,954 shares owned directly by Baker Bros. Investments II, L.P. and 49,742 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.
- 8. Represents shares 44,952 shares owned directly by Baker Bros. Investments II, L.P. and 49,739 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.

 /s/ Julian C. Baker, as
 Managing Member of Baker
 12/12/2007

 Bros. Capital (GP), LLC
 12/12/2007

 /s/ Julian C. Baker
 12/12/2007

 /s/ Felix J. Baker
 12/12/2007

 \*\* 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.