

IDERA PHARMACEUTICALS, INC.  
Form SC 13D  
August 17, 2006

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

**SCHEDULE 13D  
Under the Securities Exchange Act of 1934**

**(Amendment No.   )**

**Idera Pharmaceuticals, Inc**  
(Name of Issuer)

**Common Stock, par value \$0.001 per share**  
(Title of Class of Securities)

**45168K108**  
(CUSIP Number)

**Leo Kirby**  
**667 Madison Avenue, 17th Floor**  
**New York, NY 10021**  
**(212) 521-2418**

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

**July 26, 2006**  
(Date of Event which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of Rule 13d-1(e), 13d-1(f) or 13d-1(g), check the following box.  x

**Note:** Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7 for other parties to whom copies are to be sent.

\*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 (the "Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

**SCHEDULE 13D**

**CUSIP No. 45168K108**

**Page 2 of 7 Pages**

- 1** NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS  
 Julian C. Baker
- 2** CHECK THE APPROPRIATE BOX IF A MEMBER OF A (a)   
 GROUP (See Instructions) (b)
- 3** SEC USE ONLY
- 4** SOURCE OF FUNDS (See Instructions)  
 WC
- 5** CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS  
 IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e)
- 6** CITIZENSHIP OR PLACE OF ORGANIZATION  
 United States
- |                     |           |                          |  |
|---------------------|-----------|--------------------------|--|
| <b>NUMBER OF</b>    | <b>7</b>  | SOLE VOTING POWER        |  |
| <b>SHARES</b>       |           | 0                        |  |
| <b>BENEFICIALLY</b> | <b>8</b>  | SHARED VOTING POWER      |  |
| <b>OWNED BY</b>     |           | 3,977,273                |  |
| <b>EACH</b>         | <b>9</b>  | SOLE DISPOSITIVE POWER   |  |
| <b>REPORTING</b>    |           | 0                        |  |
| <b>PERSON</b>       | <b>10</b> | SHARED DISPOSITIVE POWER |  |
| <b>WITH</b>         |           | 3,977,273                |  |
- 11** AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
 3,977,273
- 12** CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES   
 CERTAIN SHARES (See Instructions)
- 13** PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  
 20.8%
- 14** TYPE OF REPORTING PERSON (See Instructions)  
 IN

**SCHEDULE 13D**

**CUSIP No. 45168K108**

**Page 3 of 7 Pages**

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GROUP (See Instructions) (b)
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WC
- 5** CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS  
IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e) o
- 6** CITIZENSHIP OR PLACE OF ORGANIZATION  
United States
- |                     |           |                          |  |
|---------------------|-----------|--------------------------|--|
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IN

**Item 1. Security and Issuer.**

This statement relates to the common stock, \$0.001 par value (the “Common Stock”), of Idera Pharmaceuticals Inc, a Delaware corporation (the “Company”), whose principal executive offices are located at 345 Vassar Street, Cambridge MA 02139.

**Item 2. Identity and Background.**

This statement is being filed by Julian C. Baker and Felix J. Baker (each, a “Reporting Person”), each of whom is a United States citizen. Set forth below is certain information with respect to each Reporting Person:

Name	Business Address	Present Principal Occupation
Julian C. Baker	667 Madison Avenue New York, NY 10021	Managing Member, Baker Bros. Advisors, LLC (an entity engaged in investment activities)
Felix J. Baker	667 Madison Avenue New York, NY 10021	Managing Member, Baker Bros. Advisors, LLC (an entity engaged in investment activities)

During the last five years, none of the Reporting Persons has been convicted in any criminal proceeding (excluding traffic violations or similar misdemeanors) or has been a party to a civil proceeding of a judicial or administrative body of competent jurisdiction resulting in his being subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws, or finding any violations with respect to such laws.

**Item 3. Source and Amount of Funds or Other Consideration.**

The funds used to purchase the shares of Common Stock reported in Item 5 below were provided from the available working capital of the entities there indicated.

**Item 4. Purpose of Transaction.**

The entities referred to in Item 5 below acquired the shares of Common Stock and Warrants set forth therein solely for investment. The Reporting Persons expect to review from time to time the investment positions of these entities and may, depending on market and other conditions, increase or decrease their holdings.

Whether the entities purchase any additional shares of Common Stock or dispose of any shares of Common Stock, and the amount and timing of any such transactions, will depend upon the Reporting Persons’ continuing assessments of pertinent factors, including the availability of shares of Common Stock for purchase at particular price levels, the Company’s business and prospects, other business investment opportunities, economic conditions, stock market conditions, money market conditions, the attitudes and actions of the Board of Directors and management of the Company, the availability and nature of opportunities to dispose of shares in the Company and other plans and requirements of the particular entities. Depending upon their assessments of these factors from time to time, the Reporting Persons may change their present intentions as stated above, including determining to acquire additional shares of Common Stock (by means of open market or privately negotiated purchases) or to dispose of some or all of the shares of Common Stock under their control. The Reporting Persons do not have any plans or proposals with

respect to any extraordinary corporate transaction involving the Company or any sale of its assets or any change in its Board of Directors, management, capitalization, dividend strategy, charter or by-laws, or any other change in its business or corporate structure or with respect to the delisting or deregistration of any of its securities including, without limitation, those matters described in subparagraphs (a) through (j) of Item 4 of Schedule 13D.

**Item 5. Interest in Securities of the Issuer.**

The Reporting Persons may be deemed to have acquired beneficial ownership of 1,704,545 shares of Common Stock on July 26, 2006 by virtue of the fact that the Warrants held by them become exercisable within 60 days of that date.

Set forth below is the aggregate number of shares of Common Stock held, including shares that maybe acquired upon the exercise of Warrants, as of the date hereof by each of the following, together with the percentage of outstanding shares of Common Stock that such number represents based upon 17,406,951 shares outstanding as reported in the Company's Form 10Q filed on August 14, 2006. Such percentage figures are calculated on the basis that the Warrants owned by the Reporting Persons are deemed exercised for shares of Common Stock but other outstanding Warrants are not deemed converted or exercised.

Name	Number of Shares	Percent of Class Outstanding
Baker Bros. Investments, L.P.	123,113	0.6%
Baker Bros. Investments II, L.P.	111,259	0.6%
Baker Biotech Fund I, L.P	1,222,919	6.4%
Baker Brothers Life Sciences, L.P.	2,444,728	12.8%
14159, L.P.	75,254	0.4%
<hr/>		
Total	3,977,273	20.8%

By virtue of their ownership of entities that have the power to control the investment decisions of the limited partnerships listed in the table above, Julian C. Baker and Felix J. Baker may each be deemed to be beneficial owners of shares owned by such entities and may be deemed to have shared power to vote or direct the vote of and shared power to dispose or direct the disposition of such securities.

**Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer.**

On March 24, 2006, the Company entered into a Stock Purchase Agreement with Baker Brothers I, L.P., Baker Brothers II, L.P., Baker Brothers Life Sciences, L.P., Baker Biotech Fund I, L.P. and 14159, L.P. ("Baker Entities") under which the Baker Entities purchased an aggregate of 2,272,728 shares of Common Stock at \$3.52 per share from the Company on March 24, 2006. (These numbers reflect the one-for-eight reverse split effective on June 29, 2006). A copy of the Stock Purchase Agreement is filed as Exhibit 1 hereto and is incorporated herein in its entirety by reference. As part of this Stock Purchase Agreement the affiliated funds of the Baker Entities received 1,704,545 warrants to purchase shares in the Company for \$5.20 per share, exercisable on September 24, 2006. This agreement does not reflect the one-for-eight reverse split effective on June 29, 2006.

**Item 7. Material to Be Filed as Exhibits.**

Exhibit 1 Stock Purchase Agreement dated March 24, 2006 by and among the Company and the Baker Entities (incorporated by reference to the Form 10-K filed by the Company with the Securities and Exchange Commission on March 31, 2006).

Exhibit 2. Agreement regarding the joint filing of this statement.

**SIGNATURE**

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

August 17, 2006

By: /s/ Julian C.  
Baker  
Julian C. Baker

By: /s/ Felix J.  
Baker  
Felix J. Baker

**AGREEMENT**

In accordance with Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, as amended, the undersigned hereby agree that this Statement on Schedule 13D relating to the Common Stock, \$0.001 par value, of Idera Pharmaceuticals, Inc. is being filed with the Securities and Exchange Commission on behalf of each of them.

August 17, 2006

By: /s/ Julian C.  
Baker  
Julian C. Baker

By: /s/ Felix J.  
Baker  
Felix J. Baker

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