

IDERA PHARMACEUTICALS, INC.  
 Form 4  
 August 17, 2006

**FORM 4**

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

OMB APPROVAL

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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 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 \*  
 Baker Brothers Life Sciences Capital (GP), LLC

2. Issuer Name and Ticker or Trading Symbol  
 IDERA PHARMACEUTICALS, INC. [IDP]

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)  
 667 MADISON AVENUE, 17TH FLOOR

3. Date of Earliest Transaction (Month/Day/Year)  
 04/25/2006

\_\_\_ Director \_\_\_X\_\_\_ 10% Owner  
 \_\_\_ Officer (give title below) \_\_\_ Other (specify below)

(Street)  
 NEW YORK, NY 10021

4. If Amendment, Date 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

(City) (State) (Zip)

**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)
				(A) or (D)	Price		
				Code	V	Amount	
Common Stock <sup>(1)</sup>	04/25/2006		J(2)(3)(4)		\$ 0 0	I	See Footnote (5)
Common Stock	04/25/2006		J(2)(3)(4)		\$ 0 0	I	See Footnote (6)
Common Stock	04/25/2006		J(2)(3)(4)		\$ 0 0	I	See Footnote (7)
Common	04/25/2006		J(2)(3)(4)		\$ 0 11,175,900	I	See

Stock

Footnote  
(8)

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

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(9-02)

**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 Underlying (Instr. 3 and 4)
					V	(A)	(D)	Date Exercisable	
Warrant	\$ 0.65	04/25/2006		J		3,821,193	09/26/2006	09/26/2011	Common Stock
Warrant	\$ 0.65	04/25/2006		J		505,590	09/26/2006	09/26/2011	Common Stock
Warrant	\$ 0.65	04/25/2006		J		608,343	09/26/2006	09/26/2011	Common Stock
Warrant	\$ 0.65	04/25/2006		J		4,935,126	09/26/2006	09/26/2011	Common Stock

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Baker Brothers Life Sciences Capital (GP), LLC 667 MADISON AVENUE 17TH FLOOR NEW YORK, NY 10021		X		
Baker Biotech Capital II (GP), LLC 667 MADISON AVE 17TH FLOOR NEW YORK, NY 10021		X		
Baker Biotech Capital II (Z) (GP), LLC 667 MADISON AVENUE		X		

17TH FLOOR  
NEW YORK, NY 10021

Baker Biotech Capital III (Z) (GP), LLC  
667 MADISON AVENUE  
17TH FLOOR X  
NEW YORK, NY 10021

BAKER JULIAN  
667 MADISON AVENUE X  
NEW YORK, NY 10021

BAKER FELIX  
667 MADISON AVENUE X  
NEW YORK, NY 10021

## Signatures

/s/ Julian C. Baker, as Managing Member of Baker Biotech Capital II (GP), LLC	08/17/2006
__Signature of Reporting Person	Date
/s/ Julian C. Baker, as Managing Member of Baker Biotech Capital II (Z) (GP), LLC	08/17/2006
__Signature of Reporting Person	Date
/s/ Julian C. Baker, as Managing Member of Baker Biotech Capital III (GP), LLC	08/17/2006
__Signature of Reporting Person	Date
/s/ Julian C. Baker, as Managing Member of Baker Biotech Capital III (Z) (GP), LLC	08/17/2006
__Signature of Reporting Person	Date
s/ Julian C. Baker, as Managing Member of Baker Brothers Life Sciences Capital (GP), LLC	08/17/2006
__Signature of Reporting Person	Date
/s/ Julian C. Baker	08/17/2006
__Signature of Reporting Person	Date
/s/ Felix J. Baker	08/17/2006
__Signature of Reporting Person	Date

## Explanation of Responses:

\* 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).

In addition to Baker Brothers Life Sciences Capital (GP), LLC (formerly known as Baker Biotech Capital III (GP), LLC), this form is being filed jointly by Julian C. Baker, Felix J. Baker, Baker Biotech Capital II (GP), LLC, Baker Biotech Capital II (Z)(GP), LLC, and

(1) Baker Biotech Capital III (Z)(GP), each of whom has the same business address as Baker Brothers Life Sciences Capital (GP), LLC. Each of the reporting persons disclaims beneficial ownership of the securities reported hereon except to the extent of his or its pecuniary interest, if any, therein.

On April 25, 2006, Baker Biotech Fund II, L.P., Baker Biotech Fund II (Z), L.P. and Baker Biotech Fund III (Z), L.P. were merged with and into Baker Biotech Fund III, L.P. which changed its name simultaneously therewith to Baker Brothers Life Sciences, L.P.

(2) Simultaneously therewith, Baker Biotech Capital II, L.P., Baker Biotech Capital II (Z), L.P., and Baker Biotech Capital III (Z), L.P., the general partners of Baker Biotech Fund II, L.P., Baker Biotech Fund II (Z), L.P. and Baker Biotech Fund III (Z), L.P., respectively, were merged with and into Baker Biotech Capital III, L.P., the general partner of Baker Biotech Fund III, L.P., and Baker Biotech Capital III, L.P. changed its name simultaneously therewith to Baker Brothers Life Sciences Capital, L.P. (Continued in footnote 3.)

(3)

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In addition, simultaneously therewith, Baker Biotech Capital II (GP), LLC, Baker Biotech Capital II (Z)(GP), LLC, and Baker Biotech Capital III (Z)(GP), LLC, the general partners of Baker Biotech Capital II, L.P., Baker Biotech Capital II (Z), L.P., and Baker Biotech Capital III (Z), L.P., respectively, were merged with and into Baker Biotech Capital III (GP), LLC, the general partner of Baker Biotech Capital III, L.P. and Baker Biotech Capital III (GP), LLC changed its name simultaneously therewith to Baker Brothers Life Sciences Capital (GP), LLC. Julian C. Baker and Felix J. Baker are the controlling members of Baker Biotech Capital II (GP), LLC, Baker Biotech Capital II (Z)(GP), LLC, Baker Biotech Capital III (Z)(GP), LLC and Baker Brothers Life Sciences Capital (GP), LLC, and may have a pecuniary interest in shares held by them. Such pecuniary interest, if any, was unchanged as a result of the mergers referred to herein. (Continued in footnote 4.)

- (4) Julian C. Baker and Felix J. Baker disclaim beneficial ownership of the shares reported herein except to the extent of their pecuniary interest, if any, therein.
- (5) Represents securities owned directly by Baker Biotech Fund II, L.P., which is no longer subject to Section 16 of the Securities Exchange Act of 1934.
- (6) Represents securities owned directly by Baker Biotech Fund II (Z), L.P., which is no longer subject to Section 16 of the Securities Exchange Act of 1934.
- (7) Represents securities owned directly by Baker Biotech Fund III(Z), L.P., which is no longer subject to Section 16 of the Securities Exchange Act of 1934.
- (8) Represents securities owned directly by Baker Brothers Life Sciences, L.P. (formerly known as Baker Biotech Fund III, L.P.).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.