

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

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 Brothers Life Sciences Capital (GP), LLC</u> (Last) (First) (Middle) 667 MADISON AVENUE 17TH FLOOR (Street) NEW YORK NY 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) 04/25/2006	
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⁾	04/25/2006		J ⁽²⁾⁽³⁾⁽⁴⁾		5,094,924	D	\$0	0	I	See Footnote ⁽⁵⁾
Common Stock	04/25/2006		J ⁽²⁾⁽³⁾⁽⁴⁾		674,120	D	\$0	0	I	See Footnote ⁽⁶⁾
Common Stock	04/25/2006		J ⁽²⁾⁽³⁾⁽⁴⁾		811,124	D	\$0	0	I	See Footnote ⁽⁷⁾
Common Stock	04/25/2006		J ⁽²⁾⁽³⁾⁽⁴⁾		6,580,168	A	\$0	11,175,900	I	See Footnote ⁽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	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Warrant	\$0.65	04/25/2006		J		3,821,193		09/26/2006	09/26/2011	Common Stock	3,821,193	\$0	0	I	See footnote ⁽⁵⁾
Warrant	\$0.65	04/25/2006		J		505,590		09/26/2006	09/26/2011	Common Stock	505,590	\$0	0	I	See footnote ⁽⁶⁾
Warrant	\$0.65	04/25/2006		J		608,343		09/26/2006	09/26/2011	Common Stock	608,343	\$0	0	I	See footnote ⁽⁷⁾
Warrant	\$0.65	04/25/2006		J		4,935,126		09/26/2006	09/26/2011	Common Stock	4,935,126	\$0	8,381,925	I	See footnote ⁽⁸⁾

1. Name and Address of Reporting Person*

[Baker Brothers Life Sciences Capital \(GP\), LLC](#)

(Last) (First) (Middle)

667 MADISON AVENUE
17TH FLOOR

(Street)

NEW YORK NY 10021

(City) (State) (Zip)

1. Name and Address of Reporting Person*

[Baker Biotech Capital II \(GP\), LLC](#)

(Last) (First) (Middle)

667 MADISON AVE 17TH FLOOR

(Street)

NEW YORK NY 10021

(City) (State) (Zip)

1. Name and Address of Reporting Person*

[Baker Biotech Capital II \(Z\) \(GP\), LLC](#)

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667 MADISON AVENUE
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(Street)

NEW YORK NY 10021

(City) (State) (Zip)

1. Name and Address of Reporting Person*

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667 MADISON AVENUE
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(Street)

NEW YORK NY 10021

(City) (State) (Zip)

1. Name and Address of Reporting Person*

[BAKER JULIAN](#)

(Last) (First) (Middle)

667 MADISON AVENUE

(Street)

NEW YORK NY 10021

(City) (State) (Zip)

1. Name and Address of Reporting Person*

BAKER FELIX

(Last) (First) (Middle)

667 MADISON AVENUE

(Street)

NEW YORK NY 10021

(City) (State) (Zip)

Explanation of Responses:

1. 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 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.

2. 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. 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. 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.).

/s/ Julian C. Baker, as
Managing Member of Baker
Biotech Capital II (GP), LLC 08/17/2006

/s/ Julian C. Baker, as
Managing Member of Baker
Biotech Capital II (Z) (GP),
LLC 08/17/2006

/s/ Julian C. Baker, as
Managing Member of Baker
Biotech Capital III (GP), LLC 08/17/2006

/s/ Julian C. Baker, as
Managing Member of Baker
Biotech Capital III (Z) (GP),
LLC 08/17/2006

s/ Julian C. Baker, as
Managing Member of Baker
Brothers Life Sciences Capital
(GP), LLC 08/17/2006

/s/ Julian C. Baker 08/17/2006

/s/ Felix J. Baker 08/17/2006

** 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.