

**FORM 4**

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

OMB APPROVAL	
OMB Number:	3235-0287
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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 US 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) 07/28/2008	
	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 <sup>(1)(2)</sup>	07/28/2008		S		5,901	D	\$14.8726	437,700	I	Through Partnership <sup>(3)</sup>
Common Stock <sup>(1)(2)</sup>	07/29/2008		S		19,670	D	\$14.931	418,030	I	Through Partnership <sup>(3)</sup>

**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		Date Exercisable	Expiration Date					

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 US 10021  (City) (State) (Zip)		
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1. Name and Address of Reporting Person *		
<u>BAKER JULIAN</u>		
(Last)	(First)	(Middle)
667 MADISON AVENUE, 17TH FLOOR		
(Street)		
NEW YORK	NY	US 10021
(City)		
(State)	(Zip)	
1. Name and Address of Reporting Person *		
<u>BAKER FELIX</u>		
(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 Brothers Life Sciences Capital (GP), LLC, this Form 4 is being filed jointly by Julian C. Baker and Felix J. Baker, each of whom has the same business address as Baker Brothers Life Sciences 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 of 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 owners of securities owned by any 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 securities owned directly by Baker Brothers Life Sciences, L.P., the sole general partner of which is Baker Brothers Life Sciences Capital, L.P., a limited partnership the sole general partner of which is Baker Brothers Life Sciences Capital (GP), LLC. Julian C. Baker and Felix J. Baker are the controlling members of Baker Brothers Life Sciences Capital (GP), LLC.

/s/ Julian C. Baker, as  
Managing Member of Baker  
Brothers Life Sciences Capital 07/30/2008  
(GP), LLC

/s/ Julian C. Baker 07/30/2008  
/s/ Felix J. Baker 07/30/2008

\*\* 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.**