

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 BROS. ADVISORS LP</u> (Last) (First) (Middle) 860 WASHINGTON STREET 3RD FLOOR (Street) NEW YORK NY 10014 (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>IDERA PHARMACEUTICALS, INC. [IDRA]</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) 07/01/2019	
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								21,929 ⁽¹⁾	D	
Common Stock								21,929 ⁽²⁾	D	
Common Stock	07/01/2019		A		2,964	A	\$2.61	350,721	I	See footnotes ⁽³⁾⁽⁴⁾⁽⁵⁾⁽⁶⁾⁽⁸⁾⁽⁹⁾⁽¹⁰⁾
Common Stock	07/01/2019		A		2,964	A	\$2.61	4,290,995	I	See footnotes ⁽³⁾⁽⁴⁾⁽⁵⁾⁽⁷⁾⁽⁸⁾⁽⁹⁾⁽¹⁰⁾

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					

1. Name and Address of Reporting Person* <u>BAKER BROS. ADVISORS LP</u> (Last) (First) (Middle) 860 WASHINGTON STREET 3RD FLOOR (Street) NEW YORK NY 10014 (City) (State) (Zip)		
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1. Name and Address of Reporting Person*		
Baker Bros. Advisors (GP) LLC		
(Last)	(First)	(Middle)
860 WASHINGTON STREET 3RD FLOOR		
(Street)		
NEW YORK	NY	10014
(City) (State) (Zip)		
1. Name and Address of Reporting Person*		
BAKER FELIX		
(Last)	(First)	(Middle)
860 WASHINGTON STREET 3RD FLOOR		
(Street)		
NEW YORK	NY	10014
(City) (State) (Zip)		
1. Name and Address of Reporting Person*		
BAKER JULIAN		
(Last)	(First)	(Middle)
860 WASHINGTON STREET, 3RD FLOOR		
(Street)		
NEW YORK	NY	10014
(City) (State) (Zip)		

Explanation of Responses:

1. Common stock ("Common Stock") of Idera Pharmaceuticals, Inc. (the "Issuer") directly held by Julian C. Baker.
2. Common Stock directly held by Felix J. Baker.
3. 2,964 shares of Common Stock issued to Dr. Kelvin M. Neu, a full-time employee of Baker Bros. Advisors LP (the "Adviser") pursuant to the 2013 Stock Incentive Plan (the "Stock Incentive Plan") of the Issuer in lieu of director retainer fees of \$7,736.
4. The shares of Common Stock are fully vested. Dr. Neu previously served on the Issuer's board of directors (the "Board") as a representative of the 667, L.P. ("667") and Baker Brothers Life Sciences, L.P. ("Life Sciences", and together with 667, the "Funds"). Dr. Neu also previously served on the Compensation Committee of the Board for which he received additional director retainer fees. Julian C. Baker, a Managing Member of Baker Bros. Advisors (GP) LLC (the "Adviser GP") also previously served on the Board as a representative of the Funds.
5. Pursuant to the policies of the Adviser, Julian C. Baker and Dr. Neu do not have any right to the pecuniary interest in the Issuer's securities issued in lieu of director retainer fees for previous service on the Board and the Funds are entitled to an indirect proportionate pecuniary interest in the securities issued in lieu of director fees. The Funds each owns an indirect proportionate pecuniary interest in the shares of Common Stock.
6. After giving effect to the transaction reported herein and as a result of their ownership interest in (i) Baker Biotech Capital, L.P. and (ii) 667, Julian C. Baker and Felix J. Baker each may be deemed to have an indirect pecuniary interest in Common Stock reported in column 5 of Table I directly held by 667, a limited partnership of which the sole general partner is Baker Biotech Capital, L.P., a limited partnership of which the sole general partner is Baker Biotech Capital (GP), LLC, due to Baker Biotech Capital, L.P.'s right to receive an allocation of a portion of the profits from 667. Includes beneficial ownership of 32,930 shares issued pursuant to the Stock Incentive Plan in lieu of director retainer fees of which the fund may be deemed to own a portion.
7. After giving effect to the transaction reported herein and as a result of their ownership interest in (i) Baker Brothers Life Sciences Capital, L.P. and (ii) Life Sciences, Julian C. Baker and Felix J. Baker each may be deemed to have an indirect pecuniary interest in Common Stock reported in column 5 of Table I directly held by Life Sciences, a limited partnership of which the sole general partner is Baker Brothers Life Sciences Capital, L.P., a limited partnership of which the sole general partner is Baker Brothers Life Sciences Capital (GP), LLC, due to Baker Brothers Life Sciences Capital, L.P.'s right to receive an allocation of a portion of the profits from Life Sciences. Includes beneficial ownership of 32,930 shares issued pursuant to the Stock Incentive Plan in lieu of director retainer fees of which the fund may be deemed to own a portion.
8. The 2,964 shares are reported for each of the Funds as each has an indirect pecuniary interest.
9. The Adviser serves as the investment adviser to the Funds. In connection with the services provided by the Adviser, the Adviser receives an asset-based management fee that does not confer any pecuniary interest in the securities held by the Funds. The Adviser GP is the Adviser's sole general partner. Julian C. Baker and Felix J. Baker are managing members of the Adviser GP. The Adviser has complete and unlimited discretion and authority with respect to the investment and voting power of the securities held by the Funds. The general partners of the Funds relinquished to the Adviser all discretion and authority with respect to the investment and voting power of the securities held by the Funds.
10. Julian C. Baker, Felix J. Baker, the Adviser GP and the Adviser disclaim beneficial ownership of the securities held directly by the Funds except to the extent of their pecuniary interest therein, and this report shall not be deemed an admission that any of Julian C. Baker, Felix J. Baker, the Adviser GP or the Adviser is a beneficial owner of such securities for purposes of Section 16 or any other purpose.

Remarks:

By: Baker Bros. Advisors LP,
Name: Scott L. Lessing, Title: 07/03/2019
President /s/ Scott L. Lessing

By: Baker Bros. Advisors (GP)
LLC. Name: Scott L. Lessing. 07/03/2019
Title: President /s/ Scott L.
Lessing
/s/ Felix J. Baker 07/03/2019
/s/ Julian C. Baker 07/03/2019
** 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.

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