

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

OMB APPROVAL	
OMB Number:	3235-0287
Estimated average burden hours per response:	0.5

1. Name and Address of Reporting Person* BAKER BROS. ADVISORS LP (Last) (First) (Middle) 860 WASHINGTON STREET 3RD FLOOR (Street) NEW YORK NY 10014 (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol IDERA PHARMACEUTICALS, INC. [IDRA]	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) 06/06/2019	
	4. If Amendment, Date of Original Filed (Month/Day/Year)	6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person

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								4,288,031	I	See footnotes ⁽¹⁾⁽⁸⁾⁽⁹⁾
Common Stock	06/06/2019		J ⁽²⁾		178,967	D	\$0 ⁽²⁾	347,757	I	See footnotes ⁽⁴⁾⁽⁸⁾⁽⁹⁾
Common Stock	06/06/2019		J ⁽³⁾		59,267	D	\$0 ⁽³⁾	0	I	See footnotes ⁽⁵⁾⁽⁸⁾⁽⁹⁾
Common Stock	06/06/2019		J		21,929	A	\$0	21,929 ⁽⁶⁾	D	
Common Stock	06/06/2019		J		21,929	A	\$0	21,929 ⁽⁷⁾	D	

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				
Warrants to purchase Common Stock	\$0.08	06/06/2019		J		42,724		05/07/2013	05/07/2020	Common Stock	42,724	\$0	0	I	See Footnote ⁽¹⁰⁾
Warrants to purchase Common Stock	\$0.08	06/06/2019		J		11,337		09/25/2013	09/30/2020	Common Stock	11,337	\$0	0	I	See Footnote ⁽¹⁰⁾
Warrants to purchase Common Stock	\$0.08	06/06/2019		J		6,009		02/05/2014	02/10/2021	Common Stock	6,009	\$0	0	I	See Footnote ⁽¹⁰⁾
Warrants to purchase Common Stock	\$0.08	06/06/2019		J		6,256		05/07/2013	05/07/2020	Common Stock	6,256	\$0	6,256 ⁽¹¹⁾	D	
Warrants to purchase Common Stock	\$0.08	06/06/2019		J		1,660		09/25/2013	09/30/2020	Common Stock	1,660	\$0	1,660 ⁽¹¹⁾	D	
Warrants to purchase Common Stock	\$0.08	06/06/2019		J		880		02/05/2014	02/10/2021	Common Stock	880	\$0	880 ⁽¹¹⁾	D	

**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				
Warrants to purchase Common Stock	\$0.08	06/06/2019		J		6,256		05/07/2013	05/07/2020	Common Stock	6,256	\$0	6,256 ⁽¹²⁾	D	
Warrants to purchase Common Stock	\$0.08	06/06/2019		J		1,660		09/25/2013	09/30/2020	Common Stock	1,660	\$0	1,660 ⁽¹²⁾	D	
Warrants to purchase Common Stock	\$0.08	06/06/2019		J		880		02/05/2014	02/10/2021	Common Stock	880	\$0	880 ⁽¹²⁾	D	

1. Name and Address of Reporting Person*

[BAKER BROS. ADVISORS LP](#)

(Last) (First) (Middle)

860 WASHINGTON STREET
3RD FLOOR

(Street)
NEW YORK NY 10014

(City) (State) (Zip)

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. As a result of their ownership interest in (i) Baker Brothers Life Sciences Capital, L.P. and (ii) Baker Brothers Life Sciences, L.P. ("Life Sciences"), Julian C. Baker and Felix J. Baker each may be deemed to have an indirect pecuniary interest in common stock ("Common Stock") of Idera Pharmaceuticals, Inc. (the "Issuer") 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 29,966 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.

2. Represents shares of Common Stock distributed by 667, L.P. ("667") as part of an in-kind pro rata distribution without consideration in accordance with pecuniary interest to Julian C. Baker, Felix J. Baker and other investors in 667.
3. Represents shares of Common Stock distributed by 14159, L.P. ("14159", and together with Life Sciences and 667, the "Funds") as part of an in-kind pro rata distribution without consideration in accordance with pecuniary interest to Julian C. Baker, Felix J. Baker and other investors in 14159.
4. 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 29,966 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.
5. After giving effect to the transaction reported herein and as a result of their ownership interest in (i) 14159 Capital, L.P. and (ii) 14159, 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 14159, a limited partnership of which the sole general partner is 14159 Capital, L.P., a limited partnership of which the sole general partner is 14159 Capital (GP), LLC, due to 14159 Capital, L.P.'s right to receive an allocation of a portion of the profits from 14159. Due to the fact that 14159 has fully distributed all of the Issuer's securities it no longer has the right to the pecuniary interest in the securities issued pursuant to the Stock Incentive Plan for securities received.
6. Common Stock held directly by Felix J. Baker received from the in-kind pro rata distributions without consideration reported above.
7. Common Stock held directly by Julian C. Baker received from the in-kind pro rata distributions without consideration reported above.
8. Baker Bros. Advisors LP (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. Baker Bros. Advisors (GP) LLC (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.
9. 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.
10. Represents warrants exercisable for Common Stock distributed by 14159 as part of an in-kind pro rata distribution without consideration in accordance with pecuniary interest to Julian C. Baker, Felix J. Baker and other investors in 14159.
11. Warrants exercisable for Common Stock held directly by Felix J. Baker received from the in-kind pro rata distributions without consideration reported above.
12. Warrants exercisable for Common Stock held directly by Julian C. Baker received from the in-kind pro rata distributions without consideration reported above.

Remarks:

Remarks: Effective June 4, 2019 Kelvin M. Neu resigned from the board of directors of Idera Pharmaceuticals, Inc.

By: Baker Bros. Advisors LP,
Name: Scott L. Lessing, Title: 06/07/2019
President /s/ Scott L. Lessing
By: Baker Bros. Advisors (GP)
LLC, Name: Scott L. Lessing, 06/07/2019
Title: President /s/ Scott L.
Lessing
/s/ Felix J. Baker 06/07/2019
/s/ Julian C. Baker 06/07/2019
** 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.

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.