

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* <u>BAKER BROS. ADVISORS LP</u> (Last) (First) (Middle) 667 MADISON AVENUE, 21ST FLOOR (Street) NEW YORK NY US 10065 (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>AQUINOX PHARMACEUTICALS, INC [AQXP]</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) 09/10/2015	
	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							2,260	D ⁽¹⁾		
Common Stock							2,260	D ⁽²⁾		
Common Stock	09/10/2015		P		266,563	A	\$15.5	725,228	I	See Footnote ⁽³⁾ (4)(6)
Common Stock	09/10/2015		P		2,213,469	A	\$15.5	6,022,104	I	See Footnotes ⁽³⁾⁽⁵⁾⁽⁶⁾

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)		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)					

1. Name and Address of Reporting Person*
BAKER BROS. ADVISORS LP
 (Last) (First) (Middle)
 667 MADISON AVENUE, 21ST FLOOR
 (Street)
 NEW YORK NY US 10065
 (City) (State) (Zip)

1. Name and Address of Reporting Person*
Baker Bros. Advisors (GP) LLC
 (Last) (First) (Middle)
 667 MADISON AVENUE 21ST FLOOR
 (Street)
 NEW YORK NY US 10065
 (City) (State) (Zip)

1. Name and Address of Reporting Person*
BAKER FELIX

(Last)	(First)	(Middle)
667 MADISON AVENUE, 21ST FLOOR		
(Street)		
NEW YORK	NY	US 10065
(City)	(State)	(Zip)

1. Name and Address of Reporting Person*

BAKER JULIAN

(Last)	(First)	(Middle)
667 MADISON AVENUE, 21ST FLOOR		
(Street)		
NEW YORK	NY	US 10065
(City)	(State)	(Zip)

Explanation of Responses:

1. Common shares held directly by Felix J. Baker and for which Felix J. Baker has sole beneficial ownership. These shares were received in an in kind pro rata distribution from an affiliated investment fund in January 2015 without consideration.
2. Common shares held directly by Julian C. Baker and for which Julian C. Baker has sole beneficial ownership. These shares were received in an in kind pro rata distribution from an affiliated investment fund in January 2015 without consideration.
3. On September 10, 2015, Baker Brothers Life Sciences, L.P. ("Life Sciences") and 667, L.P. ("667", and together with Life Sciences, the "Funds") purchased 266,563 shares and 2,213,469 shares, respectively, of the Common Stock of Aquinox Pharmaceuticals, Inc. (the "Issuer") pursuant to an underwritten public offering. The Funds purchased the shares of Common Stock at the public offering price of \$15.50 per share.
4. After giving effect to the transactions reported herein, and as a result of their ownership interest in Baker Biotech Capital (GP), LLC, Julian C. Baker and Felix J. Baker may be deemed to have an indirect pecuniary interest in the Issuer's shares of 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.
5. After giving effect to the transactions reported herein, and as a result of their ownership interest in Baker Brothers Life Sciences Capital (GP), LLC, Julian C. Baker and Felix J. Baker may be deemed to have an indirect pecuniary interest in the Issuer's shares of 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.
6. 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 principals 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. 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.

Name: Scott L. Lessing Title: 09/11/2015
President /s/ Scott L.
By: Baker Bros. Advisors (GP)
LLC, Name: Scott L. Lessing, 09/11/2015
Title: President /s/ Scott L.
Lessing
/s/ Felix J. Baker 09/11/2015
/s/ Julian C. Baker 09/11/2015
 ** 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.