

INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

OMB APPROVAL	
OMB Number:	3235-0104
Estimated average burden hours per response:	0.5

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) 667 MADISON AVENUE, 21ST FLOOR (Street) NEW YORK NY 10065 (City) (State) (Zip)	2. Date of Event Requiring Statement (Month/Day/Year) 08/07/2015	3. Issuer Name and Ticker or Trading Symbol <u>AQUINOX PHARMACEUTICALS, INC [AQXP]</u>	
		4. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director <input checked="" type="checkbox"/> 10% Owner Officer (give title below) Other (specify below)	5. If Amendment, Date of Original Filed (Month/Day/Year) 6. Individual or Joint/Group Filing (Check Applicable Line) <input type="checkbox"/> Form filed by One Reporting Person <input checked="" type="checkbox"/> Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Beneficially Owned

1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
Common Stock	458,665	I	See Footnote ⁽¹⁾⁽³⁾
Common Stock	3,808,635	I	See Footnote ⁽²⁾⁽³⁾

Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)		3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)		4. Conversion or Exercise Price of Derivative Security	5. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exercisable	Expiration Date	Title	Amount or Number of Shares			

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

[BAKER FELIX](#)

(Last) (First) (Middle)

667 MADISON AVENUE, 21ST FLOOR

(Street)

NEW YORK NY 10065

(City) (State) (Zip)

1. Name and Address of Reporting Person*

[Baker Brothers Life Sciences LP](#)

(Last) (First) (Middle)

667 MADISON AVENUE, 21ST FLOOR

(Street)

NEW YORK NY 10065

(City) (State) (Zip)

1. Name and Address of Reporting Person*

[667, L.P.](#)

(Last) (First) (Middle)

667 MADISON AVENUE 21ST FLOOR

(Street)

NEW YORK NY 10065

(City) (State) (Zip)

Explanation of Responses:

1. As a result of Felix J. Baker's and Julian C. Baker's ownership interest in Baker Biotech Capital (GP), LLC, Felix J. Baker and Julian C. Baker may be deemed to have an indirect pecuniary interest in 458,665 shares of Common Stock of the Issuer beneficially owned by 667, L.P. ("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.

2. As a result of Felix J. Baker's and Julian C. Baker's ownership interest in Baker Brothers Life Sciences Capital (GP), LLC, Felix J. Baker and Julian C. Baker may be deemed to have an indirect pecuniary interest 3,808,635 shares of Common Stock of the Issuer beneficially owned by Baker Brothers Life Sciences, L.P. ("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.

3. Baker Bros. Advisors LP (the "Adviser") serves as the Investment Adviser to 667 and Life Sciences(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: President /s/ Scott L. Lessing](#) [08/10/2015](#)

[Name: Scott L. Lessing Title: President /s/ Scott L. Lessing](#) [08/10/2015](#)

[/s/ Julian C. Baker](#) [08/10/2015](#)

[/s/ Felix J. Baker](#) [08/10/2015](#)

[Baker Bros. Advisors LP, Mgmt. Co. and Inv. Adviser to BAKER BROTHERS LIFE SCIENCES, L.P., pursuant to authority granted by Baker Brothers Life Sciences Capital, L.P. GP to Baker](#) [08/10/2015](#)

[Baker Bros. Advisors LP, Mgmt. Co. and Inv. Adviser to 667, L.P., pursuant to authority granted by Baker Biotech Capital, L.P., GP to 667, L.P.](#) [08/10/2015](#)

[Name: Scott L. Lessing, Title: President /s/ Scott L.](#)

** 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 5 (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.