

AQUINOX PHARMACEUTICALS, INC

Form S-3

January 06, 2017

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As filed with the Securities and Exchange Commission on January 6, 2017

Registration No. 333-

**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D.C. 20549**

**FORM S-3**  
**REGISTRATION STATEMENT**  
***UNDER***  
***THE SECURITIES ACT OF 1933***

**Aquinox Pharmaceuticals, Inc.**

**(Exact name of registrant as specified in its charter)**

**Delaware**  
**(State or other jurisdiction of**  
**incorporation or organization)**

**98-0542593**  
**(I.R.S. Employer**  
**Identification Number)**

**450-887 Great Northern Way**

**Vancouver, B.C., Canada V5T 4T5**

**(604) 629-9223**

**(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)**

**David J. Main**

**President and Chief Executive Officer**

**Aquinox Pharmaceuticals, Inc.**

**450-887 Great Northern Way**

**Vancouver, B.C., Canada V5T 4T5**

**(604) 629-9223**

**(Name, address, including zip code, and telephone number, including area code, of agent for service)**

*Copies to:*

**Michael E. Tenta**

**Alan D. Hambelton**

**Cooley LLP**

**3175 Hanover Street**

**Palo Alto, CA 94304**

**(650) 843-5000**

**Approximate date of commencement of proposed sale to the public: From time to time after this Registration Statement becomes effective.**

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer (Do not check if a smaller reporting company)

Smaller reporting company

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<b>Title of Each Class of Securities to be Registered</b>	<b>Amount to be Registered (1)</b>	<b>Proposed Maximum Offering Price Per Share (2)</b>	<b>Proposed Maximum Aggregate Offering Price (2)</b>	<b>Amount of Registration Fee</b>
Common Stock, par value \$0.000001 per share	10,536,092	\$16.27	\$171,422,217	\$19,868

- (1) Pursuant to Rule 416 under the Securities Act, the shares being registered hereunder include such indeterminate number of shares of common stock as may be issuable with respect to the shares being registered hereunder as a result of stock splits, stock dividends or similar transactions.
- (2) Estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(c) under the Securities Act. The price per share and aggregate offering price are based on the average of the high and low prices of the registrant's common stock on January 3, 2017, as reported on the NASDAQ Global Market.

**The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until this registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.**

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**The information contained in this prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.**

**Subject to Completion, Dated January 6, 2017**

**PROSPECTUS**

**Common Stock**

This prospectus relates to the sale or other disposition from time to time of up to 10,536,092 shares of our common stock, par value \$0.000001 per share, held by the selling stockholders named in this prospectus. We are not selling any common stock under this prospectus and will not receive any of the proceeds from the sale or other disposition of shares by the selling stockholders.

The selling stockholders may sell or otherwise dispose of the shares of common stock covered by this prospectus in a number of different ways and at varying prices. We provide more information about how the selling stockholders may sell or otherwise dispose of their shares of common stock in the section entitled Plan of Distribution. Discounts, concessions, commissions and similar selling expenses attributable to the sale of shares of common stock covered by this prospectus will be borne by a selling stockholder. The selling stockholders will pay or reimburse us for all expenses (other than discounts, concessions, commissions and similar selling expenses) relating to the registration of the shares with the Securities and Exchange Commission.

Our common stock is listed on the NASDAQ Global Market under the symbol AQXP. On January 5, 2017, the last reported sale price of our common stock on the NASDAQ Global Market was \$17.12 per share.

**Investing in our common stock involves a high degree of risk. You should review carefully the risks and uncertainties described or incorporated by reference under the heading Risk Factors on page 3 of this prospectus, and under similar headings in any amendment or supplement to this prospectus or as updated by any subsequent filing with the Securities and Exchange Commission that is incorporated by reference herein.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.**

**The date of this prospectus is \_\_\_\_\_, 2017.**

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**ABOUT THIS PROSPECTUS**

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or SEC, using the shelf registration process. Under this process, the selling stockholders may from time to time, in one or more offerings, sell the common stock described in this prospectus.

You should rely only on the information contained in, or incorporated by reference into, this prospectus (as supplemented and amended), along with the information contained in any free writing prospectuses we or the selling stockholders have authorized for use in connection with a specific offering. We have not authorized anyone to provide you with different information. We and the selling stockholders take no responsibility for, and can provide no assurances as to the reliability of, any other information that others may give you. The information contained in this prospectus (and in any supplement or amendment to this prospectus) or any related free writing prospectus, and the documents incorporated by reference herein and therein, are accurate only as of their respective dates, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or any sale of a security. We urge you to read carefully this prospectus (as supplemented and amended), together with the information incorporated herein by reference as described under the heading Incorporation of Certain Information by Reference before deciding whether to invest in any of the common stock being offered.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the section entitled Where You Can Find More Information.

Except as otherwise indicated herein or as the context otherwise requires, references in this prospectus to Aquinox, the company, we, us, our and similar references refer to Aquinox Pharmaceuticals, Inc., a corporation under the laws of the State of Delaware, which we refer to in this prospectus as Aquinox USA, and Aquinox Pharmaceuticals (Canada) Inc., a corporation under the Canada Business Corporations Act, which we refer to in this prospectus as AQXP

Canada.

This prospectus and the information incorporated herein by reference include trademarks, service marks and trade names owned by us or other companies. All trademarks, service marks and trade names included or incorporated by reference into this prospectus and the information incorporated herein by reference are the property of their respective owners.



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**PROSPECTUS SUMMARY**

*The following summary highlights information contained elsewhere in this prospectus or incorporated by reference herein and does not contain all the information that may be important to purchasers of our securities. Prospective purchasers of our securities should carefully read the entire prospectus, any applicable prospectus supplement and any related free writing prospectus we or the selling stockholders have authorized for use in connection with a specific offering, including the risks of investing in our securities discussed under the heading Risk Factors contained in any applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. Prospective purchasers of our securities should also carefully read the information incorporated by reference into this prospectus, including our financial statements, and the exhibits to the registration statement of which this prospectus is a part.*

**Aquinox Pharmaceuticals, Inc.**

**Overview**

We are a clinical-stage pharmaceutical company discovering and developing targeted therapeutics in disease areas of inflammation and immuno-oncology. Our primary focus is anti-inflammatory product candidates targeting the SH2-containing inositol-5 -phosphatase 1 (SHIP1) enzyme, which is a key regulator of an important cellular signaling pathway in immune cells, known as the PI3K pathway. Our product candidate, AQX-1125, is a small molecule activator of SHIP1 suitable for oral, once daily dosing. We are currently developing AQX-1125 as a treatment in interstitial cystitis/bladder pain syndrome (IC/BPS), a chronic inflammatory disease of the bladder. For AQX-1125, we retain full worldwide rights and hold patents with terms through 2024 in Europe and 2028 in the United States with the possibility of further patent term extension avenues available to us.

AQX-1125 is a SHIP1 activator that has demonstrated preliminary safety, broad anti-inflammatory potential and favorable drug properties in multiple preclinical studies. We have also completed seven clinical trials, exposing over 380 subjects to once daily oral administration of AQX-1125. These trials have demonstrated a good tolerability profile, with over 200 subjects receiving AQX-1125 in two Phase 2 trials for periods of 12 weeks. We believe AQX-1125 is the only SHIP1 activator currently in clinical trials and that no SHIP1 activator has yet received marketing approval as a treatment for disease in humans. Our longer-term strategy is to broaden our development activities for AQX-1125 and to advance next generation SHIP1 activators for the treatment of additional inflammatory diseases and cancer.

**Company Information**

We commenced operations as 6175813 Canada Inc., a corporation formed in December 2003 under the Canada Business Corporations Act. We subsequently changed the name of this corporation in May 2014 to Aquinox Pharmaceuticals (Canada) Inc., which we refer to in this prospectus as AQXP Canada. We incorporated Aquinox Pharmaceuticals (USA) Inc., a corporation under the laws of the State of Delaware, in May 2007. We subsequently changed the name of this corporation in January 2014 to Aquinox Pharmaceuticals, Inc., which we refer to in this prospectus as Aquinox USA. AQXP Canada is now a wholly owned subsidiary of Aquinox USA. Our primary executive offices are located at 450-887 Great Northern Way, Vancouver, B.C., Canada V5T 4T5 and our telephone number is (604) 629-9223. Our website address is [www.aqxpharma.com](http://www.aqxpharma.com). The information contained in, or that can be accessed through, our website is not a part of, and is not incorporated into, this prospectus, and you should not consider it part of this prospectus.



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**The Offering**

Common stock to be offered by the selling stockholders 10,536,092 shares

Use of proceeds We will not receive any proceeds from the sale of the shares of common stock covered by this prospectus.

NASDAQ Global Market symbol AQXP

The selling stockholders named in this prospectus may offer and sell up to 10,536,092 shares of our common stock. Throughout this prospectus, when we refer to the shares of our common stock being registered on behalf of the selling stockholders, we are referring to all shares of common stock reported to us as held by the selling stockholders as of January 5, 2017.

On September 19, 2016, we entered into an underwriting agreement with Leerink Partners LLC, as representative of the several underwriters named therein, relating to the offering and sale of 6,152,500 shares of our common stock at the price to the public of \$12.25 per share. The sale of such shares closed on September 23, 2016, and the selling stockholders purchased 2,771,055 shares of our common stock in such offering, which are included in this prospectus.

On September 9, 2015, we entered into an underwriting agreement with Leerink Partners LLC, as representative of the several underwriters named therein, relating to the offering and sale of 6,325,000 shares of our common stock at the price to the public of \$15.50 per share. The sale of such shares closed on September 15, 2015, and the selling stockholders purchased 2,480,032 shares of our common stock in such offering, which are included in this prospectus.

On March 6, 2014, we entered into an underwriting agreement with Jefferies LLC and Cowen and Company, LCC, as representatives of the several underwriters named therein, relating to the offering and sale of 4,830,000 shares of our common stock at the price to the public of \$11.00 per share. The sale of such shares closed on March 12, 2014, and the selling stockholders purchased 454,545 shares of our common stock in such offering, which are included in this prospectus.

Between March 7, 2014 and January 5, 2017, the selling stockholders purchased an aggregate of 4,097,339 shares of our common stock in the open market at prices ranging from \$1.98 to \$13.19 per share.

Finally, the selling stockholders purchased 733,121 shares of our common shares through several private placements of our convertible preferred stock prior to our initial public offering, which convertible preferred stock was converted into common stock in connection with our initial public offering.

We agreed to file this prospectus pursuant to a Registration Rights Agreement with the selling stockholders dated September 19, 2016. Additional information with respect to the Registration Rights Agreement is contained in this prospectus under the heading **Selling Stockholders** and in our current report on Form 8-K filed with the Securities and Exchange Commission, or SEC, on September 20, 2016.

When we refer to the selling stockholders, we are referring to the selling stockholders named herein and, as applicable, any donees, pledgees, transferees or other successors-in-interest selling shares received after the date of

this prospectus from a selling stockholder as a gift, pledge, or other non-sale related transfer that may be identified in a supplement to this prospectus or, if required, a post-effective amendment to the registration statement of which this prospectus is a part.

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**RISK FACTORS**

An investment in our common stock involves a high degree of risk. Prior to making a decision about investing in our common stock, you should consider carefully the specific risk factors discussed in the sections entitled Risk Factors contained in our most recent Annual Report on Form 10-K or Quarterly Report on Form 10-Q, as filed with the SEC, which are incorporated in this prospectus by reference in their entirety, as well as any amendment or updates to our risk factors reflected in subsequent filings with the SEC, including any prospectus supplement hereto. These risks and uncertainties are not the only risks and uncertainties we face. Additional risks and uncertainties not presently known to us, or that we currently view as immaterial, may also impair our business. If any of the risks or uncertainties described in our SEC filings or any additional risks and uncertainties actually occur, our business, financial condition, results of operations and cash flow could be materially and adversely affected. In that case, the trading price of our common stock could decline and you might lose all or part of your investment.

**FORWARD-LOOKING STATEMENTS**

This prospectus, including the documents that we incorporate by reference herein, contains, and any applicable prospectus supplement or free writing prospectus, including the documents we incorporate by reference therein, may contain, forward-looking statements, including statements regarding our future financial condition, business strategy and plans and objectives of management for future operations. Forward-looking statements include all statements that are not historical facts. In some cases, you can identify forward-looking statements by terminology such as believe, will, may, estimate, continue, anticipate, intend, should, plan, might, approximately, expect, or the negative of these terms or other similar expressions. Forward-looking statements appear in a number of places throughout this prospectus and the documents that we incorporate by reference herein, and include statements regarding our intentions, beliefs, projections, outlook, analyses or current expectations concerning, among other things, our ongoing and planned preclinical development and clinical trials, the timing of and our ability to make regulatory filings and obtain and maintain regulatory approvals for AQX-1125 and our future product candidates, our intellectual property position, the degree of clinical utility of AQX-1125 and our future product candidates, particularly in specific patient populations, our ability to develop commercial functions, expectations regarding clinical trial data, our results of operations, cash needs, financial condition, liquidity, prospects, growth and strategies, the industry in which we operate and the trends that may affect our industry or us.

Discussions containing these forward-looking statements may be found, among other places, in the sections entitled Business, Risk Factors and Management's Discussion and Analysis of Financial Condition and Results of Operations incorporated by reference from our most recent Annual Report on Form 10-K and in our Quarterly Reports on Form 10-Q, as well as any amendments thereto, filed with the SEC. These statements relate to future events or our future financial performance and involve known and unknown risks, uncertainties and other factors that could cause our actual results, levels of activity, performance or achievement to differ materially from those expressed or implied by these forward-looking statements. We discuss in greater detail, and incorporate by reference into this prospectus in their entirety, many of these risks and uncertainties under the heading Risk Factors contained in the any applicable prospectus supplement, in any free writing prospectus we or the selling stockholders may authorize for use in connection with a specific offering, and in our most recent Annual Report on Form 10-K and in our most recent Quarterly Report on Form 10-Q, as well as any amendments thereto reflected in subsequent filings with the SEC. These statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. These forward-looking statements represent our estimates and assumptions only as of the date of the document containing the applicable statement and, except as required by law, we undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise.



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**USE OF PROCEEDS**

We will not receive any of the proceeds from the sale or other disposition of shares of our common stock by the selling stockholders pursuant to this prospectus. The selling stockholders will receive all of the net proceeds from sales of the common stock sold pursuant to this prospectus.

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**SELLING STOCKHOLDERS**

The selling stockholders named in this prospectus may offer and sell up to 10,536,092 shares of our common stock. The foregoing shares represent all shares of common stock reported to us as held by the selling stockholders as of January 5, 2017.

On September 19, 2016, in connection with a follow-on public offering of our common stock, we entered into a Registration Rights Agreement with the selling stockholders. Under the Registration Rights Agreement, we agreed that, if at any time and from time to time after December 19, 2016, the selling stockholders demand that we register their shares of our common stock for resale under the Securities Act of 1933, as amended, we would be obligated to effect such registration. Our registration obligations under the Registration Rights Agreement cover all shares of common stock now held or hereafter acquired by the selling stockholders, will continue in effect for up to ten years, and include our obligation to facilitate certain underwritten public offerings of our common stock by the selling stockholders in the future. The selling stockholders will bear all expenses incurred in effecting any registration pursuant to the Registration Rights Agreement. Additional information with respect to the Registration Rights Agreement is contained in our current report on Form 8-K filed with the SEC on September 20, 2016.

Entities affiliated with Baker Bros. Advisors LP, or BBA, and which together are our largest stockholders, purchased an aggregate of 2,771,055 of the shares of common stock offered in the follow-on public offering we completed in September 2016 at the public offering price of \$12.25 per share, for an aggregate purchase price of approximately \$33.9 million. In addition, entities affiliated with BBA purchased an aggregate of 2,480,032 of the shares of common stock offered in the follow-on public offering we completed in September 2015 at the public offering price of \$15.50 per share, for an aggregate purchase price of approximately \$38.4 million. In addition, entities affiliated with BBA purchased an aggregate of 454,545 of the shares of common stock offered in our initial public offering we completed in March 2014 at the public offering price of \$11.00 per share, for an aggregate purchase price of approximately \$5.0 million. The shares purchased in these public offerings are included in the shares of common stock offered by this prospectus.

Except for the ownership of the shares of common stock, the Registration Rights Agreement and the participation by entities affiliated with BBA in our recent public offerings, the selling stockholders have not had any material relationship with us or our affiliates within the past three years.

The table below, including the footnotes, lists the selling stockholders and other information regarding the beneficial ownership of the shares of common stock held by the selling stockholders based on information provided to us by the selling stockholders. Generally, a person beneficially owns shares of our common stock if the person has or shares with others the right to vote those shares or to dispose of them, or if the person has the right to acquire voting or disposition rights within 60 days. The percentages of shares owned prior to and after the offering are based on 23,423,150 shares of our common stock outstanding as of January 5, 2017, which includes the outstanding shares of common stock offered by this prospectus. The number of shares beneficially owned prior to the offering indicates the number of shares of common stock reported to us as beneficially owned by the selling stockholders as of January 5, 2017.

The maximum number of shares to be sold column indicates the total number of shares of our common stock that the selling stockholders may offer under this prospectus.

The shares beneficially owned after offering number assumes the sale of all of the shares offered by the selling stockholders pursuant to this prospectus. However, because the selling stockholders may sell all or some of their shares under this prospectus from time to time, or in another permitted manner, we cannot assure you as to the actual



number of shares that will be sold by the selling stockholders or that will be held by the selling stockholders after completion of any sales. We do not know how long any of the selling stockholders will hold the shares before selling them.

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The selling stockholders may sell all, some or none of their shares in this offering. See Plan of Distribution.

Name of Selling Stockholder	Shares Beneficially Owned Prior to Offering		Maximum Number of Shares to be Sold Pursuant to this Prospectus	Shares Beneficially Owned After Offering (1)	
	Number	Percent	Number	Number	Percent
Baker Bros. Advisors LP (2)	10,536,092	45.0%	10,536,092		

- (1) The selling stockholders may offer and sell all or part of the common stock covered by this prospectus, but no estimates can be made as to the amount of shares of common stock that will be held by the selling stockholders after the completion of this offering.
- (2) The shares of common stock reported to us as beneficially owned by Baker Bros. Advisors LP, or BBA, are held by the following selling stockholders (i) 667, L.P., or 667, (1,131,625 shares of common stock) and (ii) Baker Brothers Life Sciences, L.P., or BBLs (9,404,467 shares of common stock). BBA is the management company and investment adviser to 667 and BBLs and may be deemed to beneficially own all shares held by 667 and BBLs. In addition, each of Julian C. Baker and Felix J. Baker holds 2,260 shares of common stock. The shares held directly by Julian C. Baker and Felix J. Baker are not being registered for resale pursuant to this prospectus. Baker Bros. Advisors (GP) LLC, or BBA-GP, is the sole general partner of BBA. Julian C. Baker and Felix J. Baker have voting and investment power over the shares held by each of 667 and BBLs, as principals of BBA-GP. Julian C. Baker, Felix J. Baker, BBA and BBA-GP disclaim beneficial ownership of all shares held by 667 and BBLs, except to the extent any such person actually exercises voting or dispositive power with respect to such shares.

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**PLAN OF DISTRIBUTION**

The selling stockholders may, from time to time, sell any or all of their shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These sales may be at fixed or negotiated prices. The selling stockholders may use any one or more of the following methods when selling shares:

ordinary brokerage transactions and transactions in which a broker-dealer solicits purchasers;

block trades in which a broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;

purchases by a broker-dealer as principal and resale by the broker-dealer for its account under this prospectus;

an exchange distribution in accordance with the rules of the applicable exchange;

privately negotiated transactions;

at the market or through market makers or into an existing market for the shares;

short sales;

through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;

through the distribution of the common stock by any selling stockholder to its partners, members or stockholders;

through broker-dealers that agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;

through one or more underwritten offerings on a firm commitment or best efforts basis;

a combination of any such methods of sale; and

any other method permitted pursuant to applicable law.

The selling stockholders will act independently of us in making decisions with respect to the timing, manner and size of each sale. The selling stockholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act, as permitted by that rule, or Section 4(1) under the Securities Act, if available, rather than under this prospectus, provided that they meet the criteria and conform to the requirements of those provisions.

In connection with the sale of the shares, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholders may also sell shares of our common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The aggregate proceeds to the selling stockholders from the sale of the shares offered by them will be the purchase price of the common stock less discounts or commissions, if any. Each of the selling stockholders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering.

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The selling stockholders and any broker-dealers that act in connection with the sale of securities may be deemed to be underwriters within the meaning of Section 2(11) of the Securities Act in connection with such sales, and any commissions received by such broker-dealers and any profit on the resale of the securities sold by them while acting as principals may be deemed to be underwriting discounts or commissions under the Securities Act. In the event that any selling stockholder is deemed to be an underwriter within the meaning of Section 2(11) of the Securities Act, the selling stockholder will be subject to the prospectus delivery requirements of the Securities Act. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act. To our knowledge, none of the selling stockholders received any shares as underwriting compensation.

The selling stockholders may from time to time pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock from time to time under this prospectus after we have filed a supplement to this prospectus, or, if required, a post-effective amendment to the registration statement of which this prospectus is a part, supplementing or amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus.

The selling stockholders also may transfer the shares of common stock in other circumstances, in which case the transferees or other successors in interest will be the selling beneficial owners for purposes of this prospectus and may sell the shares of common stock from time to time under this prospectus after we have filed a supplement to this prospectus or, if required, a post-effective amendment to the registration statement of which this prospectus is a part, supplementing or amending the list of selling stockholders to include the transferee or other successors in interest as selling stockholders under this prospectus.

To the extent required, the shares of our common stock to be sold, the names of the selling stockholders, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, any applicable commissions or discounts with respect to a particular offer will be set forth in an amendment or supplement to this prospectus.

The selling stockholders have agreed to pay or reimburse the company for all fees and expenses incident to the registration of the shares of common stock. We have agreed to indemnify the selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

The selling stockholders have advised us that they have not entered into any agreements, understandings or arrangements with any underwriters or broker-dealers regarding the sale of their shares of common stock, nor is there an underwriter or coordinating broker acting in connection with a proposed sale of shares of common stock by any selling stockholder. If we are notified by any selling stockholder that any material arrangement has been entered into with a broker-dealer for the sale of shares of common stock, if required, we will file a supplement to this prospectus. If the selling stockholders use this prospectus for any sale of the shares of common stock, they will be subject to the prospectus delivery requirements of the Securities Act.

We have advised the selling stockholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares of our common stock in the market and to the activities of the selling stockholders and their affiliates. These rules may limit the timing of purchases and sales of the shares by such selling stockholders. Regulation M may also restrict the ability of any person engaged in the distribution of the shares of common stock to engage in market-making activities with respect to the shares of common stock. All of the foregoing may affect the marketability of the shares of common stock and the ability of any person or entity to engage in market-making activities with respect to the shares of common stock.

Our common stock is listed on The NASDAQ Global Market under the symbol AQXP. There can be no assurance that any selling stockholder will sell any or all of the shares of common stock registered pursuant to this prospectus.

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**LEGAL MATTERS**

The validity of the common stock being offered hereby was passed upon by Cooley LLP, Palo Alto, California.

**EXPERTS**

The financial statements, incorporated in this prospectus by reference from the Company's Annual Report on Form 10-K for the year ended December 31, 2015, have been audited by Deloitte LLP, an independent registered public accounting firm, as stated in their report, which is incorporated herein by reference. Such financial statements have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

**WHERE YOU CAN FIND MORE INFORMATION**

This prospectus is part of a registration statement on Form S-3 we filed with the SEC. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the securities we are offering under this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. Neither we nor any agent, underwriter or dealer has authorized any person to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front page of this prospectus, regardless of the time of delivery of this prospectus or any sale of the securities offered by this prospectus.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document we file with the SEC at the SEC's public reference room at 100 F Street, N.E., Washington, D.C., 20549. Please call the SEC at 1.800.SEC.0330 for further information on the operation of the public reference room. Our SEC filings are also available to the public at the SEC's website at

<http://www.sec.gov>.

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**INCORPORATION OF CERTAIN INFORMATION BY REFERENCE**

The SEC allows us to incorporate by reference the information we file with it, which means that we can disclose important information to you by referring you to those documents instead of having to repeat the information in this prospectus. The information incorporated by reference is considered to be part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings (including those made after the date of the initial filing of the registration statement of which this prospectus is a part and prior to the effectiveness of such registration statement) we will make with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Exchange Act until the termination of the offering of the shares covered by this prospectus (other than information furnished under Item 2.02 or Item 7.01 of Form 8-K):

our annual report on Form 10-K for the year ended December 31, 2015, filed with the SEC on March 14, 2016, including the information specifically incorporated by reference therein from our definitive proxy statement on Schedule 14A, filed on March 25, 2016;

our quarterly reports on Form 10-Q for the quarters ended March 31, 2016, June 30, 2016 and September 30, 2016, filed with the SEC on May 10, 2016 (as amended on August 4, 2016), August 4, 2016 and November 9, 2016, respectively;

our current reports on Form 8-K, filed with the SEC on January 11, 2016, February 10, 2016, May 11, 2016, September 6, 2016 and September 20, 2016; and

the description of our common stock set forth in our registration statement on Form 8-A, filed with the SEC on March 3, 2014, including any amendments thereto or reports filed for the purposes of updating this description.

You can request a copy of these filings, at no cost, by writing or telephoning us at the following address or telephone number:

Aquinox Pharmaceuticals, Inc.  
450-887 Great Northern Way  
Vancouver, B.C., Canada V5T 4T5  
Attn: Chief Financial Officer  
(604) 629-9223



Table of Contents**PART II****INFORMATION NOT REQUIRED IN THE PROSPECTUS****Item 14. Other Expenses of Issuance and Distribution.**

The following sets forth the estimated costs and expenses, all of which shall be borne by the selling stockholders, in connection with the offering of the securities pursuant to this Registration Statement:

SEC Registration Fee	\$ 19,868
Legal Fees and Expenses	100,000*
Accounting Fees	100,000*
Printing and Miscellaneous Fees	5,132
<b>Total</b>	<b>\$ 225,000</b>

\* Estimated.

**Item 15. Indemnification of Directors and Officers.**

Section 145 of the Delaware General Corporation Law authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities, including reimbursement for expenses incurred, arising under the Securities Act of 1933.

Our certificate of incorporation provides for indemnification of our directors, officers, employees and other agents to the maximum extent permitted by the Delaware General Corporation Law, and our bylaws provide for indemnification of our directors, officers, employees and other agents to the maximum extent permitted by the Delaware General Corporation Law.

We have entered into indemnification agreements with our directors and officers whereby we have agreed to indemnify our directors and officers to the fullest extent permitted by law, including indemnification against expenses and liabilities incurred in legal proceedings to which the director or officer was, or is threatened to be made, a party by reason of the fact that such director or officer is or was a director, officer, employee or agent of Aquinox, provided that such director or officer acted in good faith and in a manner that the director or officer reasonably believed to be in, or not opposed to, the best interest of Aquinox. At present, there is no pending litigation or proceeding involving a director or officer of Aquinox regarding which indemnification is sought, nor is the registrant aware of any threatened litigation that may result in claims for indemnification.

We maintain insurance policies that indemnify our directors and officers against various liabilities arising under the Securities Act and the Exchange Act of 1934, as amended, that might be incurred by any director or officer in his capacity as such.

<b>Exhibit Number</b>	<b>Description</b>
3.1(1)	Amended and Restated Certificate of Incorporation of the Registrant.
3.2(2)	Amended and Restated Bylaws of the Registrant.
4.1(3)	Specimen Common Stock Certificate.
4.2(4)	Registration Rights Agreement, dated September 19, 2016, by and between Aquinox Pharmaceuticals, Inc. and the persons listed on Schedule A attached thereto
5.1	Opinion of Cooley LLP.
23.1	Consent of Deloitte LLP, Independent Registered Public Accounting Firm.

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**Exhibit  
Number**

**Description**

23.2 Consent of Cooley LLP is contained in Exhibit 5.1 to this Registration Statement.

24.1 Power of Attorney is contained on the signature pages.

- (1) Previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on March 12, 2014 (File No. 001-36327) and incorporated herein by reference.
- (2) Previously filed as an exhibit to the Registrant's Registration Statement on Form S-1, as amended (File No. 333-193615), filed with the Securities and Exchange Commission on January 28, 2014 and incorporated herein by reference.
- (3) Previously filed as an exhibit to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2014 filed with the Securities and Exchange Commission on May 13, 2014 (File No. 001-36327) and incorporated herein by reference.
- (4) Previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on September 20, 2016 (File No. 001-36327) and incorporated herein by reference.

**Item 17. Undertakings**

The undersigned registrant hereby undertakes:

(a) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) to include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) to reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the Calculation of Registration Fee table in the effective registration statement; and

(iii) to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (i), (ii) and (iii) of this section do not apply if the registration statement is on Form S-1, Form S-3, Form SF-3 or Form F-3 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or, as to a registration statement on Form S-3, Form SF-3 or Form F03, is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(b) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

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(d) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement;

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; and

(iii) Each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(f) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(g) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is therefore unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.



Table of Contents**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Vancouver, Province of British Columbia, on January 6, 2017.

**AQUINOX PHARMACEUTICALS, INC.**

By: /s/ David J. Main  
David J. Main  
President, Chief Executive Officer and  
Chairman of the Board

**POWER OF ATTORNEY**

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints David J. Main and Kamran Alam, his or her true and lawful agent, proxy and attorney-in-fact, each acting alone, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to (i) act on, sign, and file with the SEC any and all amendments (including post-effective amendments) to this registration statement together with all schedules and exhibits thereto, (ii) act on, sign and file such certificates, instruments, agreements and other documents as may be necessary or appropriate in connection therewith, (iii) act on and file any supplement to any prospectus included in this registration statement or any such amendment or any subsequent registration statement filed pursuant to Rule 462(b) under the Securities Act, and (iv) take any and all actions which may be necessary or appropriate to be done, as fully for all intents and purposes as he or she might or could do in person, hereby approving, ratifying and confirming all that such agent, proxy and attorney-in-fact or any of his substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated:

<b>Signatures</b>	<b>Title</b>	<b>Date</b>
/s/ David J. Main	President, Chief Executive Officer and Chairman of the Board ( <i>Principal Executive Officer</i> )	January 6, 2017
<b>David J. Main</b>		
/s/ Kamran Alam	Chief Financial Officer ( <i>Principal Financial and Accounting Officer</i> )	January 6, 2017
<b>Kamran Alam</b>		
/s/ Gary Bridger	Director	January 6, 2017

**Gary Bridger**

/s/ Daniel Levitt

Director

January 6, 2017

**Daniel Levitt**

/s/ Sean Nolan

Director

January 6, 2017

**Sean Nolan**

/s/ Robert Pelzer

Director

January 6, 2017

**Robert Pelzer**

/s/ Todd Simpson

Director

January 6, 2017

**Todd Simpson**



**Table of Contents****EXHIBIT INDEX**

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5.1	Opinion of Cooley LLP.
23.1	Consent of Deloitte LLP, Independent Registered Public Accounting Firm.
23.2	Consent of Cooley LLP is contained in Exhibit 5.1 to this Registration Statement.
24.1	Power of Attorney is contained on the signature pages.
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