
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

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

Alexion Pharmaceuticals, Inc.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

13-3648318
(I.R.S. Employer
Identification Number)

**352 Knotter Drive
Cheshire, Connecticut 06410
(203) 272-2596**

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

**David Hallal
Chief Executive Officer
Alexion Pharmaceuticals, Inc.
352 Knotter Drive
Cheshire, Connecticut 06410
(203) 272-2596**

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

With copies to:

**John B. Moriarty, Jr., Esq.
Executive Vice President, General Counsel
Alexion Pharmaceuticals, Inc.
352 Knotter Drive
Cheshire, Connecticut 06410
(203) 272-2596**

**Patrick O'Brien, Esq.
Ropes & Gray LLP
800 Boylston Street
Boston, Massachusetts 02199
(617) 951-7000**

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

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 the dividend or interest reinvestment plans, check the following box. x

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. x

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. (Check one):

Large accelerated filer	<input checked="" type="checkbox"/> x	Accelerated filer	<input type="checkbox"/> o
Non-accelerated filer	<input type="checkbox"/> o (Do not check if a smaller reporting company)	Smaller reporting company	<input type="checkbox"/> o

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered(1)	Proposed maximum offering price per unit(1)	Proposed maximum aggregate offering price(1)	Amount of registration fee(2)
Common stock, \$0.0001 par value per share...				

(1)Omitted pursuant to General Instruction II.E. of Form S-3. This registration statement covers an indeterminate amount of common stock as may from time to time be offered hereunder at indeterminate prices.

(2)In accordance on Rules 456(b) and 457(r) under the Securities Act, the registrant is deferring payment of the registration fee and will pay the registration fee on a pay-as-you-go basis.



ALEXION PHARMACEUTICALS, INC.

Common Stock

We may offer and sell, or facilitate the resale of, shares of our common stock from time to time. We will provide specific offering terms in supplements to this prospectus. The prospectus supplements may also add, update or change information contained or incorporated by reference in this document. This prospectus may be used to offer and sell securities only if accompanied by a prospectus supplement. You should read this prospectus and any prospectus supplements, along with the additional information described under the headings “Where You Can Find More Information” and “Incorporation by Reference,” before making an investment decision.

The shares of our common stock may be sold directly to our stockholders or to purchasers or through agents on our behalf or through underwriters or dealers as designated from time to time. If any agents or underwriters are involved in the sale of any of these securities, the applicable prospectus supplement will provide the names of the agents or underwriters and any applicable fees, commissions, or discounts.

Our common stock is listed on The Nasdaq Global Select Market under the symbol “ALXN.”

Investing in these securities involves substantial risk. Please see “Risk Factors” on page 1.

The address of our principal executive offices is 352 Knotter Drive, Cheshire, Connecticut 06410, and the telephone number at our principal executive offices is (203) 272-2596.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is August 13, 2015

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ABOUT THIS PROSPECTUS

Each time securities are offered for sale using this prospectus, we will provide the number of shares and offering price in a supplement to this prospectus. The prospectus supplements also may add, update or change the information contained or incorporated by reference in this prospectus and also will describe the specific manner in which we will be offering shares. You should read carefully both this prospectus and any prospectus supplement together with the additional information described under the headings “Where You Can Find More Information” and “Incorporation by Reference.”

We have not authorized anyone to provide any information other than that contained or incorporated by reference in this prospectus, in any accompanying prospectus supplement or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus or incorporated by reference herein is accurate only as of the date on the front of this prospectus or the respective dates of filing of the incorporated documents. Our business, financial condition, results of operations and prospects may have changed since that date.

Unless otherwise indicated or unless the context requires otherwise, all references in this prospectus to “Alexion,” “we,” “us” and “our” refer to Alexion Pharmaceuticals, Inc.

RISK FACTORS

For a discussion of the factors you should carefully consider before deciding to purchase any shares, please review “Part II, Item 1A—Risk Factors” in our most recent Quarterly Report on Form 10-Q, which is incorporated by reference in this prospectus, as that disclosure has been updated by subsequent periodic reports, as well as the “Risk Factors” section in the applicable prospectus supplement.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission, or the SEC. You may read and copy any materials that we file with the SEC at its Public Reference Room, 100 F Street, N.E., Washington, D.C. 20549. You may 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 from the SEC’s website at <http://www.sec.gov>.

INCORPORATION BY REFERENCE

The SEC’s rules allow us to “incorporate by reference” the information we have filed with the SEC, which means that we can disclose important information by referring you to those documents. The information incorporated by reference is a part of this prospectus, and information that we file later with the SEC will automatically update and supersede the information included and/or incorporated by reference in this prospectus. We incorporate by reference into this prospectus the information or documents listed below and any future filings made by us with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1933, as amended (other than, in each case, any document or portion of a document that is deemed not to be filed) after the initial filing of the registration statement that contains this prospectus and prior to the termination of the offerings to which this prospectus relates:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2014, filed with the SEC on February 6, 2015;
- our Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2015, filed with the SEC on April 24, 2015, and June 30, 2015, filed with the SEC on July 31, 2015;
- our Current Reports on Form 8-K filed with the SEC on January 7, 2015, January 29, 2015, March 16, 2015, March 26, 2015, April 7, 2015, May 6, 2015, May 12, 2015, June 23, 2015 (as amended August 13, 2015), and August 13, 2015;

- our unaudited pro forma combined financial information as of March 31, 2015 and the unaudited pro forma combined statement of operations for the three months ended March 31, 2015 and the year ended December 31, 2014 contained included in our Registration Statement on Form S-4/A filed with the SEC on June 9, 2015; and
- our Registration Statement on Form 8-A filed with the SEC on February 12, 1996.

This document also incorporates by reference the following information that previously been filed with the SEC by Synageva BioPharma Corp.:

- Synageva's audited consolidated historical financial statements included in Synageva's Annual Report on Form 10-K for the fiscal year ended December 31, 2014, filed with the SEC on February 6, 2015;
- Synageva's unaudited consolidated interim financial statements included in Synageva's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2015, filed with the SEC on April 30, 2015.

You may obtain documents incorporated by reference into this prospectus at no cost by requesting them in writing or telephoning us at the following:

Investor Relations
Alexion Pharmaceuticals, Inc.
352 Knotter Drive
Cheshire, CT 06410
(203) 272-2596

These filings are also made available, free of charge, on our website at <http://www.alxn.com>. The information contained in, and that can be accessed through, our website is not incorporated into and does not form a part of this prospectus.

This prospectus constitutes a part of a registration statement on Form S-3, referred to herein, including all amendments and exhibits, as the Registration Statement, which we have filed with the SEC under the Securities Act of 1933, as amended, or the Securities Act. This prospectus does not contain all of the information contained in the Registration Statement. We refer you to the Registration Statement and related exhibits for further information regarding us and our securities. The Registration Statement may be inspected at the public reference facilities maintained by the SEC at the address set forth above or from the SEC's website at <http://www.sec.gov>. Statements contained in this prospectus or in a document incorporated or deemed to be incorporated by reference herein concerning the provisions of any document filed as an exhibit to the Registration Statement are not necessarily complete and, in each instance, reference is made to the copy of such document filed as an exhibit to the Registration Statement or otherwise filed with the SEC. Each such statement is qualified in its entirety by such reference.

ALEXION PHARMACEUTICALS, INC.

We are a biopharmaceutical company focused on serving patients with severe and ultra-rare disorders through the innovation, development and commercialization of life-transforming therapeutic products. Our marketed product Soliris® is the first and only therapeutic approved for patients with either of two severe and ultra-rare disorders resulting from chronic uncontrolled activation of the complement component of the immune system: paroxysmal nocturnal hemoglobinuria (PNH), a life-threatening and ultra-rare genetic blood disorder, and atypical hemolytic uremic syndrome (aHUS), a life-threatening and ultra-rare genetic disease. We are also evaluating additional potential indications for Soliris in other severe and devastating diseases in which uncontrolled complement activation is the underlying mechanism. In addition, Strensiq™ (asfotase alfa) for the treatment of hypophosphatasia (HPP) and Kanuma™ (Sebelipase alfa) for the treatment of lysosomal acid lipase deficiency (LAL-D) are undergoing regulatory review and we are progressing in various stages of development with additional product candidates as potential treatments for patients with severe and life-threatening ultra-rare disorders. We were incorporated in 1992 and began commercial sale of Soliris in 2007.

USE OF PROCEEDS

The use of proceeds from the disposition of the securities covered by this prospectus will be as set forth in the applicable prospectus supplement.

DESCRIPTION OF CAPITAL STOCK

As of the date of this prospectus, our certificate of incorporation authorizes us to issue 290,000,000 shares of common stock, par value \$0.0001 per share, and 5,000,000 shares of preferred stock, par value \$0.0001 per share.

The following summary describes the material terms of our capital stock. The description of capital stock is qualified by reference to our certificate of incorporation, as amended, and our bylaws, both of which are incorporated into this prospectus by reference to the SEC filings to which they are exhibits.

Common Stock

Voting. Common stockholders are entitled to one vote per share for the election of directors and on all other matters that require stockholder approval. There is no cumulative voting.

Dividends and Other Distributions. Subject to any preferences that may apply to any shares of preferred stock outstanding at the time, holders of our common stock are entitled to share in an equal amount per share any dividends declared by our board of directors on the common stock and paid out of legally available assets.

Distribution on Dissolution. Subject to any preferential rights of any outstanding preferred stock, in the event of our liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in the assets remaining after payment of liabilities and the liquidation preferences of any outstanding preferred stock.

Other Rights. Our common stock does not carry any preemptive rights enabling a holder to subscribe for, or receive shares of, any class of our common stock or any other securities convertible into shares of any class of our common stock, or any redemption rights.

Anti-Takeover Provisions

Delaware Law. We are subject to Section 203 of the Delaware General Corporation Law. This statute regulating corporate takeovers prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for three years following the date that the stockholder became an interested stockholder, unless:

- prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding (a) shares owned by persons who are directors and also officers, and (b) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or subsequent to the date of the transaction, the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66²/₃% of the outstanding voting stock which is not owned by the interested stockholder.

Generally, a business combination includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. An interested stockholder is any person who, together with such person's affiliates and associates (i) owns 15% or more of a corporation's voting securities or (ii) is an affiliate or associate of a corporation and was the owner of 15% or more of the corporation's voting securities at any time within the three year period immediately preceding a business combination of the corporation governed by Section 203. We expect the existence of this provision to have an anti-takeover effect with respect to transactions that our board of directors does not approve in advance. We also anticipate that Section 203 may discourage takeover attempts that might result in a premium over the market price for the shares of common stock held by our stockholders.

Bylaw and Certificate of Incorporation Provisions. Our bylaws provide that special meetings of our stockholders may be called only by the Chairman of the board of directors, the President, the Secretary, or a majority of the board of directors, or upon the written request of stockholders who together own of record 50% of the outstanding stock of all classes entitled to vote at such meeting. Our bylaws also specify that the authorized number of directors may be changed only by resolution of the board of directors. Our certificate of incorporation does not include a provision for cumulative voting for directors. Under cumulative voting, a minority stockholder holding a sufficient percentage of a class of shares may be able to ensure the election of one or more directors. These and other provisions contained in our certificate of incorporation and bylaws could delay or discourage transactions involving an actual or potential change in control of us or our management, including transactions in which stockholders might otherwise receive a premium for their shares over then current prices. These provisions could also limit the ability of stockholders to remove current management or approve transactions that stockholders may deem to be in their best interests and could adversely affect the price of our common stock.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A.

Listing

Our common stock is listed on The NASDAQ Global Select Market under the symbol “ALXN.”

PLAN OF DISTRIBUTION

General

The shares may be sold:

- to or through underwriting syndicates represented by one or more managing underwriters;
- to or through one or more underwriters without a syndicate;
- through dealers or agents; or
- to investors directly in negotiated sales or in competitively bid transactions.

The prospectus supplement for each offering will describe, to the extent required, information with respect to that offering, including:

- the name or names of any underwriters and the respective amounts underwritten;
- the sale price and the proceeds from the sale;
- any underwriting discounts and other items constituting underwriters' compensation;
- any initial public offering price and any discounts or concessions allowed or reallocated or paid to dealers; and
- any material relationships with the underwriters.

Underwriters

If underwriters are used in the sale, we will execute an underwriting agreement with those underwriters relating to the sale of the shares. Unless otherwise set forth in the applicable prospectus supplement, the obligations of the underwriters to purchase these shares will be subject to conditions, and the underwriters will be obligated to purchase all of these shares if any are purchased.

The shares subject to an underwriting agreement will be acquired by the underwriters for their own account and may be resold by them from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. Underwriters may be deemed to have received compensation in the form of underwriting discounts or commissions and may also receive commissions from the purchasers of these shares for whom they may act as agent. Underwriters may sell these shares to or through dealers. These dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters and/or commissions from the purchasers for whom they may act as agent. Any initial public offering price and any discounts or concessions allowed or reallocated or paid to dealers may be changed from time to time.

Agents

We may sell shares through agents designated by us from time to time. We will name any agent involved in the offer or sale of these shares and will list commissions payable by us to these agents in the applicable prospectus supplement. These agents will be acting on a best efforts basis to solicit purchases for the period of its appointment, unless we state otherwise in the applicable prospectus supplement.

Direct Sales

We may sell shares directly to purchasers. In this case, we will not engage underwriters or agents in the offer and sale of the applicable shares.

Indemnification

We may indemnify underwriters, dealers or agents who participate in the distribution of shares against certain liabilities, including liabilities under the Securities Act, and agree to contribute to payments which these underwriters, dealers or agents may be required to make.

Secondary Sales

Shares of our common stock may be sold from time to time by selling stockholders, through public or private transactions at prevailing market prices or at privately negotiated prices, as described in the applicable prospectus supplement.

LEGAL MATTERS

Unless the applicable prospectus supplement indicates otherwise, our counsel, Ropes & Gray, LLP, Boston Massachusetts, will pass upon the validity of the shares of common stock offered by this prospectus.

EXPERTS

The consolidated financial statements of Alexion Pharmaceuticals, Inc. and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report on Internal Control over Financial Reporting) incorporated in this prospectus by reference to the Alexion Pharmaceuticals, Inc. Annual Report on Form 10-K for the year ended December 31, 2014 of Alexion Pharmaceuticals, Inc. have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The consolidated financial statements of Synageva BioPharma Corp. and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report on Internal Control over Financial Reporting) incorporated in this prospectus by reference to Synageva BioPharma Corp.'s Annual Report on Form 10-K for the year ended December 31, 2014 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth all fees and expenses payable by the registrant in connection with the issuance and distribution of the securities being registered hereby (other than any underwriting discounts and commissions). All amounts are estimated.

SEC registration fee	(1)
Printing and engraving fees	\$(2)
Legal fees and expenses	\$(2)
Accounting fees and expenses	\$(2)
Stock exchange listing fees	\$(2)
Miscellaneous	\$(2)
Total	<u>\$(2)</u>

(1) Deferred in reliance upon Rule 456(b) and 457(r) under the Securities Act.

(2) These fees and expenses depend on the securities offered and the number of issuances, and accordingly cannot be estimated at this time and will be reflected in the applicable prospectus supplement.

Item 15. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law, the DGCL, empowers a Delaware corporation to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation) by reason of the fact that such person is or was a director, officer, employee or agent of such corporation, or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or enterprise. A corporation may, in advance of the final disposition of any civil, criminal, administrative or investigative action, suit or proceeding, pay the expenses (including attorneys' fees) incurred by any officer, director, employee or agent in defending such action, provided that the director or officer undertakes to repay such amount if it shall ultimately be determined that he is not entitled to be indemnified by the corporation. A corporation may indemnify such person against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful.

A Delaware corporation may indemnify officers and directors in an action by or in the right of the corporation to procure a judgment in its favor under the same conditions, except that no indemnification is permitted without judicial approval if the officer or director is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him against the expenses (including attorneys' fees) which he actually and reasonably incurred in connection therewith. The indemnification provided is not deemed to be exclusive of any other rights to which an officer or director may be entitled under any corporation's by-law, agreement, vote or otherwise.

In accordance with Section 145 of the DGCL, Section EIGHTH of our certificate of incorporation, as amended provides that we shall indemnify each person who is or was a director, officer, employee or agent of us (including the heirs, executors, administrators or estate of such person) or is or was serving at our request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, to the fullest extent permitted. The indemnification provided by our amended certificate of incorporation shall not be deemed exclusive of any other rights to which any of those seeking indemnification or advancement of expenses may be entitled under any by-law, agreement, vote of shareholders or disinterested directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person. Expenses (including attorneys' fees) incurred in defending a civil, criminal, administrative or investigative action, suit or proceeding shall be paid by us in advance of the final

disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of the indemnified person to repay such amount if it shall ultimately be determined that he is not entitled to be indemnified by us. Section NINTH of our amended certificate of incorporation provides that our directors shall not be personally liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to us or our stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL, or (iv) for any transaction from which the director derived an improper personal benefit.

Insofar as the indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers or controlling persons pursuant to the foregoing provisions, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

Item 16. Exhibits.

Exhibit No.	Description
1.1†	Form of Underwriting Agreement.
4.1	Certificate of Incorporation, as amended (incorporated by reference to our Registration Statement on Form S-3 (File No. 333-128085), filed on September 2, 2005).
4.2	Certificate of Amendment of the Certificate of Incorporation (incorporated by reference to our Annual Report on Form 10-K for the year ended December 31, 2011, filed on February 17, 2012 (File No. 000-27756)).
4.3	Bylaws, as amended (incorporated by reference to our Quarterly Report on Form 10-Q, filed on October 25, 2013 (File No. 000-27756)).
4.4	Specimen Common Stock Certificate (incorporated herein by reference to our Registration Statement on Form S-1 (File No. 333-00202)).
5.1*	Opinion of Ropes & Gray LLP.
23.1*	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm to Alexion Pharmaceuticals, Inc.
23.2*	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm to Synageva BioPharma Corp.
23.3*	Consent of Ropes & Gray LLP (included in Exhibit 5.1).
24.1*	Powers of Attorney (included on the signature page to this Registration Statement).

*Filed herewith.

†To be filed, if necessary, subsequent to the effectiveness of this Registration Statement by an amendment to this Registration Statement or incorporated by reference pursuant to a Current Report on Form 8-K in connection with an offering of securities.

Item 17. Undertakings

The undersigned registrant hereby undertakes:

- (1) 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 SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;
 - (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:

- (A) Paragraphs (1)(i) and (1)(ii) of this section do not apply if the registration statement is on Form S-8, 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 SEC 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; and
 - (B) Paragraphs (1)(i), (1)(ii) and (1)(iii) of this section do not apply if the registration statement is on Form S-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 SEC 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 is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.
 - (C) *Provided further, however,* that paragraphs (1)(i) and (1)(ii) do not apply if the registration statement is for an offering of asset-backed securities on Form S-1 or Form S-3, and the information required to be included in a post-effective amendment is provided pursuant to Item 1100(c) of Regulation AB.
- (2) 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.
 - (3) 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.
 - (4) 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; and

- (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.
- (5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
- (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
- (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

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, as amended) that is incorporated by reference in this 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.

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 such 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.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, Alexion Pharmaceuticals, Inc. 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 Cheshire, State of Connecticut, on August 13, 2015.

ALEXION PHARMACEUTICALS, INC.

By: /s/ David Hallal

Name: David Hallal

Title: Chief Executive Officer

SIGNATURES AND POWERS OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned officers and directors of Alexion Pharmaceuticals, Inc., a Delaware corporation, hereby severally constitute David Hallal and Vikas Sinha M.B.A., C.A., and each of them singly, our true and lawful attorney with full power to them, and each of them singly, to sign for us and in our names in the capacities indicated below, the Registration Statement filed herewith and any and all amendments to said Registration Statement, and generally to do all such things in our names and in our capacities as officers and directors to enable Alexion Pharmaceuticals, Inc. to comply with the provisions of the Securities Act of 1933, as amended, and all requirements of the Securities and Exchange Commission, hereby ratifying and confirming our signatures as they may be signed by our said attorneys, or any of them, to said Registration Statement and any and all amendments thereto.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on the date indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ David Hallal</u> David Hallal	Chief Executive Officer and Director <i>(Principal Executive Officer)</i>	August 13, 2015
<u>/s/ Vikas Sinha</u> Vikas Sinha, M.B.A., C.A.	Executive Vice President and Chief Financial Officer <i>(Principal Financial Officer)</i>	August 13, 2015
<u>/s/ Scott Phillips</u> Scott Phillips, C.P.A.	Senior Vice President, Corporate Controller and Chief Accounting Officer <i>(Principal Accounting Officer)</i>	August 13, 2015
<u>/s/ Leonard Bell</u> Leonard Bell, M.D.	Chairman of the Board of Directors	August 13, 2015
<u>/s/ Felix J. Baker</u> Felix J. Baker	Director	August 13, 2015
<u>/s/ David R. Brennan</u> David R. Brennan	Director	August 13, 2015

/s/ M. Michele Burns

M. Michele Burns

Director

August 13, 2015

/s/ Christopher J. Coughlin

Christopher J. Coughlin

Director

August 13, 2015

/s/ John T. Mollen

John T. Mollen

Director

August 13, 2015

/s/ R. Douglas Norby

R. Douglas Norby

Director

August 13, 2015

/s/ Alvin S. Parven

Alvin S. Parven

Director

August 13, 2015

/s/ Andreas Rummelt

Andreas Rummelt, Ph.D.

Director

August 13, 2015

/s/ Ann M. Veneman

Ann M. Veneman

Director

August 13, 2015

EXHIBIT INDEX

Exhibit No.	Description
1.1†	Form of Underwriting Agreement.
4.1	Certificate of Incorporation, as amended (incorporated by reference to our Registration Statement on Form S-3 (File No. 333-128085), filed on September 2, 2005).
4.2	Certificate of Amendment of the Certificate of Incorporation (incorporated by reference to our Annual Report on Form 10-K for the year ended December 31, 2011, filed on February 17, 2012 (File No. 000-27756)).
4.3	Bylaws, as amended (incorporated by reference to our Quarterly Report on Form 10-Q, filed on October 25, 2013 (File No. 000-27756)).
4.4	Specimen Common Stock Certificate (incorporated herein by reference to our Registration Statement on Form S-1 (File No. 333-00202)).
5.1*	Opinion of Ropes & Gray LLP.
23.1*	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm to Alexion Pharmaceuticals, Inc.
23.2*	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm to Synageva BioPharma Corp.
23.3*	Consent of Ropes & Gray LLP (included in Exhibit 5.1).
24.1*	Powers of Attorney (included on the signature page to this Registration Statement).

*Filed herewith.

† To be filed, if necessary, subsequent to the effectiveness of this Registration Statement by an amendment to this Registration Statement or incorporated by reference pursuant to a Current Report on Form 8-K in connection with an offering of securities.



ROPES & GRAY LLP
PRUDENTIAL TOWER
800 BOYLSTON STREET
BOSTON, MA 02199-3600
WWW.ROPESGRAY.COM

August 13, 2015

Alexion Pharmaceuticals, Inc.
352 Knotter Drive
Cheshire, Connecticut 06410

Re: Registration of Securities by Alexion Pharmaceuticals, Inc.

Ladies and Gentlemen:

This opinion letter is furnished to you in connection with the registration statement on Form S-3 (the "Registration Statement") filed by Alexion Pharmaceuticals, Inc., a Delaware corporation (the "Company"), on the date hereof, with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"), relating to the registration under the Securities Act and the proposed issuance and sale from time to time pursuant to Rule 415 under the Securities Act of shares of the Company's common stock, \$0.0001 par value per share (the "Common Stock").

We have examined such certificates, documents and records and have made such investigation of fact and such examination of law as we have deemed appropriate in order to enable us to render the opinions set forth herein. In conducting such investigation, we have relied, without independent verification, upon certificates of officers of the Company, public officials and other appropriate persons.

The opinions expressed below are limited to the General Corporation Law of the State of Delaware.

Based upon and subject to the foregoing and the assumptions, qualifications and limitations set forth below, we are of the opinion that when (i) the issuance and sale of any shares of Common Stock have been duly authorized by all necessary corporate action of the Company and (ii) such shares have been issued and delivered against payment of the purchase price therefor (in an amount in excess of the par value thereof) in accordance with the applicable purchase, underwriting or other agreement, and as contemplated by the Registration Statement, such shares of Common Stock will be validly issued, fully paid and nonassessable.

In rendering the opinions set forth above, we have assumed that (i) the Registration Statement will have become effective under the Securities Act, a prospectus supplement will have been prepared and filed with the Commission describing the Common Stock offered thereby and such shares of Common Stock will have been issued and sold in accordance with the terms of such prospectus supplement; (ii) a definitive purchase, underwriting, or similar agreement, pursuant to which such Common Stock may be issued, will have been duly authorized, executed and delivered by the Company and the other parties thereto (iv) at the time of the issuance of any shares of Common Stock, the Company will be a validly existing corporation under the law of its jurisdiction of incorporation; (v) the number of shares of Common Stock issued pursuant to the Registration Statement, together with the number of shares outstanding or reserved at the time of issuance, will not exceed the respective number of shares authorized by the Company's certificate of incorporation in effect at the time of such issuance; and (vi) all the foregoing actions to be taken by the Company are taken so as not to violate any applicable law and so as to comply with any requirement or restriction imposed by any court or governmental or regulatory body having jurisdiction over the Company or any of its property.

We hereby consent to the filing of this opinion letter as an exhibit to the Registration Statement and to the use of our name therein and in the related prospectus under the caption "Legal Matters." In giving such consent, we do

not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission thereunder.

This opinion is for your benefit in connection with the Registration Statement and may be relied upon by you and by persons entitled to rely upon it pursuant to the applicable provisions of the Act.

Very truly yours,

/s/ Ropes & Gray LLP

Ropes & Gray LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-3 of our report dated February 6, 2015 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in Alexion Pharmaceuticals, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2014. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ PricewaterhouseCoopers LLP
Hartford, CT
August 13, 2015

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-3 of Alexion Pharmaceuticals, Inc. of our report dated February 26, 2015 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in Synageva BioPharma Corp.'s Annual Report on Form 10-K for the year ended December 31, 2014. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ PricewaterhouseCoopers LLP
Boston, Massachusetts
August 13, 2015