

ALEXION PHARMACEUTICALS INC

Form 424B5

May 23, 2012

Table of Contents

The information in this preliminary 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 preliminary prospectus is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Filed Pursuant to Rule 424(b)(5)
Registration No. 333-181595

Subject to Completion. Dated May 23, 2012.

Prospectus Supplement to Prospectus dated May 23, 2012.

5,000,000 Shares

Alexion Pharmaceuticals, Inc.

Common Stock

Alexion Pharmaceuticals, Inc. is offering 5,000,000 shares to be sold in the offering.

The common stock is listed on the Nasdaq Global Select Market under the symbol ALXN . The last reported sale price of the common stock on May 22, 2012 was \$92.54 per share.

See **Risk Factors** on page S-3 to read about factors you should consider before buying shares of the common stock.

Neither the Securities and Exchange Commission nor any other regulatory body 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.

| | Per Share | Total |
|---------------------------------------|----------------------|--------------|
| Initial price to public | \$ | \$ |
| Underwriting discount | \$ | \$ |
| Proceeds, before expenses, to Alexion | \$ | \$ |

The underwriters expect to deliver the shares against payment in New York, New York on _____, 2012.

Goldman, Sachs & Co.

J.P. Morgan

Cowen and Company

Prospectus dated May _____, 2012.

Table of Contents

TABLE OF CONTENTS

| | Page |
|--|-------------|
| Prospectus Supplement | |
| <u>About This Prospectus Supplement</u> | S-ii |
| <u>Prospectus Supplement Summary</u> | S-1 |
| <u>Risk Factors</u> | S-3 |
| <u>Special Note Regarding Forward-Looking Statements</u> | S-5 |
| <u>Use of Proceeds</u> | S-6 |
| <u>Price Range of Common Stock</u> | S-6 |
| <u>Dividend Policy</u> | S-7 |
| <u>Capitalization</u> | S-8 |
| <u>Underwriting (Conflicts of Interest)</u> | S-9 |
| <u>Legal Matters</u> | S-12 |
| <u>Experts</u> | S-12 |
| <u>Where You Can Find More Information</u> | S-13 |
| Prospectus | |
| <u>About this Prospectus</u> | 1 |
| <u>Risk Factors</u> | 1 |
| <u>Where You Can Find More Information</u> | 1 |
| <u>Incorporation by Reference</u> | 1 |
| <u>Alexion Pharmaceuticals, Inc.</u> | 3 |
| <u>Use of Proceeds</u> | 4 |
| <u>Description of Capital Stock</u> | 4 |
| <u>Plan of Distribution</u> | 9 |
| <u>Legal Matters</u> | 10 |
| <u>Experts</u> | 10 |

Table of Contents

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus relate to part of a registration statement that we filed with the Securities and Exchange Commission, or SEC, using a shelf registration process. Both this prospectus supplement and the accompanying prospectus include or incorporate by reference important information about us, our common stock and other information you should know before investing. You should read both this prospectus supplement and the accompanying prospectus as well as additional information described under *Where You Can Find More Information* in this prospectus supplement before making an investment decision.

We have not authorized anyone to provide any information other than that contained or incorporated by reference in this prospectus supplement, in the accompanying prospectus 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. This prospectus supplement and the accompanying prospectus do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in this prospectus supplement or an offer to sell or the solicitation of any offer to buy such securities in any circumstances in which such offer or solicitation is unlawful. You should assume that the information appearing in this prospectus supplement and the accompanying prospectus, the documents incorporated by reference and any related free writing prospectus is accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed materially since those dates.

This prospectus supplement may add to, update or change the information in the accompanying prospectus. If information in this prospectus supplement is inconsistent with information in the accompanying prospectus, this prospectus supplement will apply and will supersede that information in the accompanying prospectus.

We use various trademarks and trade names in our business, including without limitation *Alexion*. This prospectus supplement also contains trademarks and trade names of other businesses that are the property of their respective holders.

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

Table of Contents

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information contained elsewhere in this prospectus supplement and the accompanying prospectus or incorporated by reference herein or therein. This summary does not contain all of the information you should consider before investing in our common stock. You should read this entire prospectus supplement and the accompanying prospectus carefully, especially the risks of investing in our common stock discussed under Risk Factors beginning on page S-3 of this prospectus supplement and the consolidated financial statements and notes to those consolidated financial statements incorporated by reference in this prospectus supplement, before making an investment decision.

Our Company

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® (eculizumab) is the first and only therapeutic approved for patients with two ultra-rare and severe disorders resulting from chronic uncontrolled activation of the complement component of the immune system: paroxysmal nocturnal hemoglobinuria (PNH), an ultra-rare and life-threatening blood disorder, and atypical hemolytic uremic syndrome (aHUS), an ultra-rare and life-threatening genetic disease. We are also evaluating other potential indications for Soliris in other diseases in which chronic uncontrolled complement activation is the underlying mechanism, and we are progressing with other biotechnology product candidates in ultra-rare and severe disorders which are now in various stages of development. We were incorporated in 1992 and began commercial sale of Soliris in 2007.

Recent Developments

On May 21, 2012, S&P Indices announced that our common stock would be included in the S&P 500 Index after the close of trading on May 24, 2012. Index funds whose portfolios are primarily based on shares of the companies included in the S&P 500 Index may be required to purchase shares of our common stock as a result of the inclusion of our common stock in the index. We are conducting this offering because we expect that the shares we are issuing will satisfy a portion of this index-based demand for our shares.

Corporate Information

We were incorporated in Delaware in 1992. 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.

Table of Contents

The Offering

Common stock offered by Alexion 5,000,000 shares

Common stock to be outstanding after this offering 192,091,332 shares

Use of proceeds We intend to use the net proceeds from this offering for general corporate purposes and to repay the outstanding borrowings under the revolving credit facility of our credit agreement. We may also use a portion of the proceeds from this offering for the license or acquisition of products, technologies or businesses complementary to our business; however, we have no current plans to effect any specific license or acquisition. For more information, see Use of Proceeds.

Risk factors See Risk Factors beginning on page S-3 and other information included in this prospectus supplement for a discussion of factors you should carefully consider before deciding to invest in shares of the common stock.

Nasdaq Global Select Market symbol ALXN

The information above is based on 187,091,332 shares outstanding as of May 21, 2012. It does not include:

7,126,324 shares of our common stock subject to options outstanding as of May 21, 2012, with a weighted average exercise price of \$17.62 per share; and

5,516,670 shares of our common stock that have been reserved upon future grants under our equity compensation plans as of May 21, 2012.

Table of Contents

RISK FACTORS

You should carefully consider the following risk factors, as well as the other information in this prospectus supplement and the accompanying prospectus, including the information incorporated by reference, before you decide to invest in Alexion and our business because these risk factors may have a significant impact on our business, operating results, financial condition and cash flows. The risks and uncertainties described in the documents incorporated by reference and those described below are not the only risks and uncertainties we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations. If any of those risks actually occurs, our business, financial condition and results of operations could be materially and adversely affected.

Risks Related to this Offering

Our common stock price has historically been volatile.

The market price for our common stock is volatile. While we have recently experienced a general increase in the market price of our common stock, that trend may not continue, may not continue at the current rate, or may reverse. During calendar year 2011, the price of our common stock as reported on the Nasdaq Global Select Market ranged from a high of \$71.55 to a low of \$40.67 and for the period January 1, 2012 through May 22, 2012, the range was from a high of \$95.01 to a low of \$69.82. Factors giving rise to this volatility may include:

actual or anticipated variations in our quarterly or annual results of operations (including sales of Soliris), cash flows, financial condition or liquidity;

our results of operations failing to meet the guidance we have provided;

change in our earnings estimates;

changes in earnings estimates of, or recommendations by, securities analysts;

results of our clinical trials or product development efforts;

actions by the FDA or other regulatory agencies;

changes in market valuations of similar companies;

additions or departures of key management personnel;

developments concerning proprietary rights, including patents and litigation;

actions by institutional stockholders;

competition;

strategic transactions involving us or our competitors;

public announcements by our competitors or others;

speculation in the press or investment community;

general financial market and economic conditions in the United States and abroad; and

the realization of any of the other risk factors included in, or incorporated by reference to, this prospectus supplement and the accompanying prospectus.

Many of the factors listed above are beyond our control. Those factors may cause the market price of our common stock to decline, regardless of our financial performance and condition and prospects. It is impossible to provide any assurance that the market price of our common stock will not fall in the future, and it may be difficult for holders to resell shares of our common stock at prices they find attractive, or at all.

S-3

Table of Contents

Our management team may invest or spend the proceeds of this offering in ways with which you may not agree or in ways which may not yield a significant return, if any.

Our management will have broad discretion over the use of proceeds from this offering. We intend to use the net proceeds from this offering for general corporate purposes and to repay the outstanding borrowings under the revolving credit facility of our credit agreement. We may also use a portion of the proceeds from this offering for the license or acquisition of products, technologies or businesses complementary to our business; however we have no current plans to effect any specific license or acquisition. Our management will have considerable discretion in the application of the net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. The net proceeds may be used for corporate purposes that do not increase our operating results or market value. Until the net proceeds are used, they may be placed in investments that do not produce significant income or investments that lose value.

Investors in this offering may experience future dilution.

In order to raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into, or exchangeable for, our common stock at prices that may not be the same as the price per share in this offering. We have an effective shelf registration statement from which additional shares of common stock can be offered. We cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this offering. If the price per share at which we sell additional shares of our common stock or related securities in future transactions is less than the price per share in this offering, investors who purchase our common stock in this offering will suffer a dilution in their investment.

Future sales of our common stock may depress our stock price.

Immediately after this offering, we will have approximately 192.1 million shares of common stock outstanding, based on the number of outstanding shares of common stock as of May 21, 2012. The shares of common stock that we are selling in connection with this offering may be resold in the public market immediately. We have agreed not to dispose of or hedge any common stock or securities convertible into or exchangeable for shares of common stock during the period from the date of this prospectus supplement continuing through the date 90 days after the date of this prospectus supplement, subject to certain exceptions. See Underwriting. In addition, the representatives of the underwriters may, in their discretion, release the restrictions on any such shares at any time without notice. We cannot predict the effect that future sales of our common stock or other equity-related securities would have on the market price of our common stock.

We have never paid cash dividends on our capital stock, and because we do not anticipate paying any cash dividends in the foreseeable future, capital appreciation, if any, of our common stock will be your sole source of gain on an investment in our common stock.

We have never paid cash dividends. We do not expect to declare or pay any cash dividends on our common stock in the near future. We intend to retain all earnings, if any, to invest in our operations. The payment of future dividends is within the discretion of our board of directors and will depend upon our future earnings, if any, our capital requirements, financial condition and other relevant factors. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future. Furthermore, we agreed to certain covenants in connection with entering into our credit agreement which restrict our ability to pay dividends.

Table of Contents**SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS**

This prospectus supplement and the accompanying prospectus contain and incorporate by reference forward-looking statements. All statements contained or incorporated by reference in this prospectus supplement and the accompanying prospectus other than statements of historical fact are forward-looking statements. Such forward-looking statements are based on current expectations, estimates and projections about our industry, management's beliefs, and certain assumptions made by our management, and may include, but are not limited to, statements regarding the potential benefits and commercial potential of Soliris® (eculizumab) for its approved indications and any expanded uses, timing and effect of sales of Soliris in various markets worldwide, pricing for Soliris, level of insurance coverage and reimbursement for Soliris, level of future Soliris sales and collections, timing regarding development and regulatory approvals for additional indications or in additional territories for Soliris, the medical and commercial potential of additional indications for Soliris, costs, expenses and capital requirements, cash outflows, cash from operations, status of reimbursement, price approval and funding processes in various countries worldwide, progress in developing commercial infrastructure and interest about Soliris and our drug candidates in the patient, physician and payor communities, the safety and efficacy of Soliris and our product candidates, estimates of the potential markets and estimated commercialization dates for Soliris and our drug candidates around the world, sales and marketing plans, any changes in the current or anticipated market demand or medical need for Soliris or our drug candidates, status of our ongoing clinical trials for eculizumab, asfotase alfa and our other product candidates, commencement dates for new clinical trials, clinical trial results, evaluation of our clinical trial results by regulatory agencies, prospects for regulatory approval, need for additional research and testing, the uncertainties involved in the drug development process and manufacturing, performance and reliance on third party service providers, our future research and development activities, plans for acquired companies and programs, assessment of competitors and potential competitors, the outcome of challenges and opposition proceedings to our intellectual property, assertion or potential assertion by third parties that the manufacture, use or sale of Soliris infringes their intellectual property, estimates of the capacity of manufacturing and other facilities to support Soliris and our product candidates, potential costs resulting from product liability or other third party claims, the sufficiency of our existing capital resources and projected cash needs, assessment of impact of recent accounting pronouncements, declines in sovereign credit ratings or sovereign defaults in countries where we sell Soliris, delay of collection or reduction in reimbursement due to adverse economic conditions or changes in government and private insurer regulations and approaches to reimbursement, the short and long term effects of other government healthcare measures, and the effect of shifting foreign exchange rates. Words such as anticipates, expects, intends, plans, believes, seeks, estimates, variations of such words and similar expressions are intended to identify such forward-looking statements, although not all forward-looking statements contain these identifying words. These statements are not guarantees of future performance and are subject to certain risks, uncertainties, and assumptions that are difficult to predict; therefore, actual results may differ materially from those expressed or forecasted in any such forward-looking statements. Such risks and uncertainties include, but are not limited to, those discussed later in this prospectus supplement under the section entitled Risk Factors and in Part II, Item 1A Risk Factors in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2012, which is incorporated by reference in this prospectus supplement and the accompanying prospectus. Unless required by law, we undertake no obligation to update publicly any forward-looking statements, whether because of new information, future events or otherwise.

Table of Contents**USE OF PROCEEDS**

We estimate that the net proceeds from the sale by us of 5,000,000 shares of common stock in this offering will be approximately \$459.1 million, based on an assumed public offering price of \$92.54 per share, after deducting the estimated underwriting discount and offering expenses payable by us.

We intend to use the net proceeds from this offering for general corporate purposes and to repay the outstanding borrowings under the revolving credit facility of our credit agreement. We may also use a portion of the proceeds from this offering for the license or acquisition of products, technologies or businesses complementary to our business; however, we have no current plans to effect any specific license or acquisition.

Prior to this offering, we had approximately \$30.0 million outstanding under our revolving credit facility. Our revolving credit facility currently bears interest at LIBOR plus 1.375%. We can borrow amounts under our \$200 million revolving credit facility until February 2017. We entered into a credit agreement comprised of the revolving credit facility and a \$240 million term loan in February 2012 in connection with the closing of our acquisition of Enobia Pharma Corp. and borrowed a portion of the amounts available under the revolving credit facility and the term loan to pay a portion of the purchase price of the acquisition. We do not intend to pay any of the outstanding term loan amounts with proceeds from this offering.

PRICE RANGE OF COMMON STOCK

Our common stock is listed on the Nasdaq Global Select Market and trades under the symbol ALXN. The following table sets forth, for the periods indicated, the high and low sale price per share of the common stock as reported on the Nasdaq Global Select Market:

| | High | Low |
|---------------------------------------|-------------|------------|
| 2010 | | |
| First Quarter | \$ 27.70 | \$ 22.75 |
| Second Quarter | 28.34 | 24.31 |
| Third Quarter | 32.49 | 24.82 |
| Fourth Quarter | 41.17 | 31.78 |
| 2011 | | |
| First Quarter | \$ 49.87 | \$ 40.67 |
| Second Quarter | 52.19 | 44.61 |
| Third Quarter | 66.69 | 47.51 |
| Fourth Quarter | 71.55 | 60.87 |
| 2012 | | |
| First Quarter | \$ 95.01 | \$ 69.82 |
| Second Quarter (through May 22, 2012) | 93.87 | 81.28 |

On May 22, 2012, the last reported sale price of our common stock was \$92.54 per share. On May 21, 2012, we had 412 holders of record of our common stock.

On May 20, 2011, we effected a two-for-one stock split, paid in the form of a 100% stock dividend. Stockholders of record at the close of trading on May 2, 2011 were issued one additional share of common stock for each share owned by such stockholder. All per share data presented in the accompanying table has been retroactively restated to reflect the stock split.

Table of Contents

DIVIDEND POLICY

We have never paid cash dividends. We do not expect to declare or pay any cash dividends on our common stock in the near future. We intend to retain all earnings, if any, to invest in our operations. The payment of future dividends is within the discretion of our board of directors and will depend upon our future earnings, if any, our capital requirements, financial condition and other relevant factors. Furthermore, we agreed to certain covenants in connection with entering into our credit agreement which restrict our ability to pay dividends.

S-7

Table of Contents**CAPITALIZATION**

The following table sets forth our cash and cash equivalents and our capitalization as of March 31, 2012:

on an actual basis; and

on an as adjusted basis to give effect to the issuance and sale of 5,000,000 shares of common stock in this offering at the public offering price of \$ per share, after deducting the underwriting discount and estimated offering expenses payable by us.

The table excludes:

7,126,324 shares of our common stock subject to options outstanding as of May 21, 2012, with a weighted average exercise price of \$17.62 per share; and

5,516,670 shares of our common stock that have been reserved upon future grants under our equity compensation plans as of May 21, 2012.

| | As of March 31, 2012 | |
|--|--|--------------------|
| | Actual | As Adjusted |
| | (unaudited) | |
| | (in thousands, except share and per share data) | |
| Cash and cash equivalents | \$ 359,388 | \$ |
| Total long-term debt, less current portion | 247,000 | |
| Stockholders' Equity: | | |
| Preferred stock, \$0.0001 par value: 5,000,000 authorized; no shares issued or outstanding, actual or as adjusted | | |
| Common stock, \$0.0001 par value: 290,000,000 shares authorized; 186,990,000 shares issued and outstanding, actual; 191,990,000 shares issued and outstanding, as adjusted | 19 | |
| Additional paid-in capital | 1,291,587 | |
| Treasury Stock, at cost | (2,676) | |
| Accumulated other comprehensive income | 7,556 | |
| Accumulated deficit | (83,206) | |
| Total stockholders' equity | 1,213,280 | |
| Total capitalization | \$ 1,460,280 | \$ |

You should read this table in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations and our consolidated financial statements and related notes which are incorporated by reference in this prospectus supplement and the accompanying prospectus.

Table of Contents**UNDERWRITING**

The company and the underwriters named below have entered into an underwriting agreement with respect to the shares being offered. Subject to certain conditions, each underwriter has severally agreed to purchase the number of shares indicated in the following table. Goldman, Sachs & Co. and J.P. Morgan Securities LLC are the representatives of the underwriters.

| Underwriters | Number of Shares |
|----------------------------|------------------|
| Goldman, Sachs & Co | |
| J.P. Morgan Securities LLC | |
| Cowen and Company, LLC | |
| Total | 5,000,000 |

The underwriters are committed to take and pay for all of the shares being offered, if any are taken.

The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters by the company.

Paid by the Company

| Per Share | \$ |
|-----------|----|
| Total | \$ |

Shares sold by the underwriters to the public will initially be offered at the initial public offering price set forth on the cover of this prospectus. Any shares sold by the underwriters to securities dealers may be sold at a discount of up to \$ per share from the initial public offering price. After the initial offering of the shares, the representatives may change the offering price and the other selling terms. The offering of the shares by the underwriters is subject to receipt and acceptance and subject to the underwriters' right to reject any order in whole or in part.

The company has agreed with the underwriters, subject to certain exceptions, not to dispose of or hedge any of their common stock or securities convertible into or exchangeable for shares of common stock during the period from the date of this prospectus continuing through the date 90 days after the date of this prospectus, except with the prior written consent of the representatives. This agreement does not apply to any existing employee benefit plans.

In connection with the offering, the underwriters may purchase and sell shares of common stock in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering, and a short position represents the amount of such sales that have not been covered by subsequent purchases. Naked short sales are any short sales that create a short position greater than the amount of any additional shares for which the underwriters may be granted an option to purchase. The underwriters were not granted an option to purchase additional shares in this offering. Accordingly, the underwriters must cover any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of common stock made by the underwriters in the open market prior to the completion of the offering.

Table of Contents

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Purchases to cover a short position and stabilizing transactions, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of the company's stock, and together with the imposition of the penalty bid, may stabilize, maintain or otherwise affect the market price of the common stock. As a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. The underwriters are not required to engage in these activities and may end any of these activities at any time. These transactions may be effected on the Nasdaq Global Select Market, in the over-the-counter market or otherwise.

The company may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. In connection with those derivatives, the third parties may sell securities covered by this prospectus, including in short sale transactions. If so, the third party may use securities pledged by the company or borrowed from the company or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from the company in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter or will be identified in a post-effective amendment.

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State), each underwriter has represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the Relevant Implementation Date) it has not made and will not make an offer of shares to the public in that Relevant Member State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive, except that it may, with effect from and including the Relevant Implementation Date, make an offer of shares to the public in that Relevant Member State at any time:

- (a) to legal entities which are authorised or regulated to operate in the financial markets or, if not so authorised or regulated, whose corporate purpose is solely to invest in securities;
- (b) to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than 43,000,000 and (3) an annual net turnover of more than 50,000,000, as shown in its last annual or consolidated accounts;
- (c) to fewer than 100 natural or legal persons (other than qualified investors as defined in the Prospectus Directive) subject to obtaining the prior consent of the representatives for any such offer; or
- (d) in any other circumstances which do not require the publication by the Issuer of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an offer of shares to the public in relation to any shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase or subscribe the shares, as the same may be varied in that Relevant Member

Table of Contents

State by any measure implementing the Prospectus Directive in that Relevant Member State and the expression Prospectus Directive means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

Each underwriter has represented and agreed that:

- (a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) received by it in connection with the issue or sale of the shares in circumstances in which Section 21(1) of the FSMA would not, if the Issuer was not an authorised person, apply to the Issuer; and
- (b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares in, from or otherwise involving the United Kingdom.

The shares may not be offered or sold by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), or (ii) to professional investors within the meaning of the Securities and Futures Ordinance (Cap.571, Laws of Hong Kong) and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a prospectus within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), and no advertisement, invitation or document relating to the shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to professional investors within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder.

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the SFA), (ii) to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are subscribed or purchased under Section 275 by a relevant person which is: (a) a corporation (which is not an accredited investor) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor, shares, debentures and units of shares and debentures of that corporation or the beneficiaries' rights and interest in that trust shall not be transferable for 6 months after that corporation or that trust has acquired the shares under Section 275 except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA; (2) where no consideration is given for the transfer; or (3) by operation of law.

The securities have not been and will not be registered under the Financial Instruments and Exchange Law of Japan (the Financial Instruments and Exchange Law) and each underwriter has agreed that it will not offer or sell any securities, directly or indirectly, in Japan or to, or for the benefit

Table of Contents

of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Law and any other applicable laws, regulations and ministerial guidelines of Japan.

The company estimates that its share of the total expenses of the offering, excluding underwriting discounts and commissions, will be approximately \$390,000.

The company has agreed to indemnify the several underwriters against certain liabilities, including liabilities under the Securities Act of 1933.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. Certain of the underwriters and their respective affiliates have provided, and may in the future provide, a variety of these services to the issuer and to persons and entities with relationships with the issuer, for which they received or will receive customary fees and expenses. J.P. Morgan Securities LLC, one of the underwriters, is a joint lead arranger and joint book manager under our credit agreement. JPMorgan Chase Bank, N.A., an affiliate of J.P. Morgan Securities LLC is the syndication agent under our credit agreement. We intend to use a portion of the net proceeds from this offering to repay the outstanding borrowings under the revolving credit facility of our credit agreement. See Use of Proceeds.

In the ordinary course of their various business activities, the underwriters and their respective affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities and/or instruments of the issuer (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with the issuer. The underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

LEGAL MATTERS

The validity of the shares of common stock offered hereby will be passed upon for us by Ropes & Gray LLP, Boston, Massachusetts. Wilmer Cutler Pickering Hale and Dorr LLP, New York, New York will pass upon certain legal matters related to this offering for the underwriters.

EXPERTS

The financial statements 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, 2011 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.

Table of Contents

The audited historical consolidated financial statements of Enobia Pharma Corp. which appear in Exhibit 99.2 of the Current Report on Form 8-K/A of Alexion Pharmaceuticals, Inc dated April 16, 2012 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, independent auditors, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with 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>.

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 supplement, 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 supplement. We incorporate by reference into this prospectus supplement the 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 1934 (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 the accompanying prospectus and prior to the completion of the offering:

our annual report on Form 10-K for the year ended December 31, 2011, filed on February 17, 2012;

our quarterly report on Form 10-Q for the quarterly period ended March 31, 2012, filed on May 2, 2012;

our current reports on Form 8-K filed on January 4, 2012, February 7, 2012, April 16, 2012, May 7, 2012, and May 11, 2012; and

our registration statement on Form 8-A filed on February 12, 1996, our registration statement on Form 8-A filed on February 21, 1997, as amended by Amendment No. 1 to Form 8-A filed on October 6, 2000, Amendment No. 2 to Form 8-A filed on February 12, 2002 and Amendment No. 3 to Form 8-A filed on November 17, 2004.

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

Investor Relations

Alexion Pharmaceuticals, Inc.

352 Knotter Drive

Cheshire, Connecticut 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 supplement.

Table of Contents

PROSPECTUS

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 May 23, 2012

Table of Contents

TABLE OF CONTENTS

| | |
|--|----|
| <u>About this Prospectus</u> | 1 |
| <u>Risk Factors</u> | 1 |
| <u>Where You Can Find More Information</u> | 1 |
| <u>Incorporation by Reference</u> | 1 |
| <u>Alexion Pharmaceuticals, Inc.</u> | 3 |
| <u>Use of Proceeds</u> | 4 |
| <u>Description of Capital Stock</u> | 4 |
| <u>Plan of Distribution</u> | 9 |
| <u>Legal Matters</u> | 10 |
| <u>Experts</u> | 10 |

Table of Contents

ABOUT THIS PROSPECTUS

Each time we offer securities 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 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 year ended December 31, 2011, filed on February 17, 2012;

our quarterly report on Form 10-Q for the quarterly period ended March 31, 2012, filed on May 2, 2012;

Table of Contents

our current reports on Form 8-K filed on January 4, 2012, February 7, 2012, April 16, 2012, May 7, 2012, and May 11, 2012; and

our registration statement on Form 8-A filed on February 12, 1996, our registration statement on Form 8-A filed on February 21, 1997, as amended by Amendment No. 1 to Form 8-A filed on October 6, 2000, Amendment No. 2 to Form 8-A filed on February 12, 2002 and Amendment No. 3 to Form 8-A filed on November 17, 2004.

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, that 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.

Table of Contents

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® (eculizumab) is the first and only therapeutic approved for patients with two ultra-rare and severe disorders resulting from chronic uncontrolled activation of the complement component of the immune system: paroxysmal nocturnal hemoglobinuria (PNH), an ultra-rare and life-threatening blood disorder, and atypical hemolytic uremic syndrome (aHUS), an ultra-rare and life-threatening genetic disease. We are also evaluating other potential indications for Soliris in other diseases in which chronic uncontrolled complement activation is the underlying mechanism, and we are progressing with other biotechnology product candidates in ultra-rare and severe disorders which are now in various stages of development. We were incorporated in 1992 and began commercial sale of Soliris in 2007.

Table of Contents

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. To date, our board of directors has designated 120,000 of the 5,000,000 authorized shares of preferred stock as junior participating cumulative preferred stock, which series is described in greater detail below under Preferred Stock Stockholder Rights Plan.

The following summary describes the material terms of our capital stock and stockholder rights plan. The description of capital stock and stockholder rights plan is qualified by reference to our certificate of incorporation, as amended, and the certificate of designation for our junior participating cumulative preferred stock, both of which are filed as an exhibit to this Registration Statement, as well as our bylaws, as amended, and our stockholder rights agreement, as amended, 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.

Preferred Stock

Under our certificate of incorporation, our board of directors has the authority, without further action by stockholders, to designate up to 5,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges, qualifications and restrictions granted to or imposed upon the preferred stock, including dividend rights, conversion rights, voting rights, rights and terms of redemption, and liquidation preference, any or all of which may be greater than the rights of the common stock. To date, our board of directors has designated 120,000 of the 5,000,000 authorized shares of preferred stock as junior participating cumulative preferred stock, which series is described in greater detail below under Stockholder Rights Plan.

The issuance of preferred stock could adversely affect the voting power of holders of common stock and reduce the likelihood that common stockholders will receive dividend payments and payments upon liquidation.

Table of Contents

The issuance could have the effect of decreasing the market price of our common stock. The issuance of preferred stock also could have the effect of delaying, deterring or preventing a change in control of us.

When we issue shares of preferred stock, the shares will be fully paid and non-assessable and will not have, or be subject to, any preemptive or similar rights.

Delaware law provides that the holders of preferred stock will have the right to vote separately as a class on any proposal involving changes that would adversely affect the powers, preferences, or special rights of holders of that preferred stock. This right is in addition to any voting rights that may be provided for in the applicable certificate of designation.

Stockholder Rights Plan.

On February 14, 1997, our board of directors declared a dividend of one preferred stock purchase right for each outstanding share of our common stock for the stockholders of record on March 6, 1997. The right will expire on March 6, 2017, subject to earlier redemption or expiration of the right as provided in the rights agreement, as amended, or the rights agreement, between us and Continental Stock Transfer & Trust Company, as rights agent. Under certain circumstances, each right entitles the registered holder to purchase from us one one-hundredth of a share of our junior participating cumulative preferred stock or, in certain circumstances, either our common stock or common stock of an acquiring company, at one-half the market price of our common stock or the acquiring company's common stock, as the case may be. The rights are designed to make it more likely that all of our stockholders receive fair and equal treatment in the event of any proposed takeover of us and to guard against the use of partial tender offers or other coercive tactics to gain control of us. The description and terms of the rights are set forth in the rights agreement.

Exercise Price. When exercisable, except as set forth below, each right entitles the registered holder to purchase from us one one-hundredth of a share of junior participating cumulative preferred stock, at a price of \$300.00 per one one-hundredth of a share, subject to adjustment in certain circumstances.

Transfer and Detachment. Until the distribution date, which is the earlier to occur of (i) the stock acquisition date, which is ten business days following the time of a public announcement or notice to us that certain persons or groups of affiliated or associated persons have acquired, or obtained the right to acquire, beneficial ownership of 20% or more of our outstanding shares of common stock (also referred to as acquiring persons), or (ii) ten business days, or such later date as may be determined by our board of directors, after the date of the commencement or announcement by a person of an intention to make a tender offer or exchange offer for an amount of common stock which, together with the shares of such stock already owned by such person, constitutes 20% or more of the outstanding shares of our common stock, the rights will be evidenced, with respect to any of our common stock certificates outstanding as of March 6, 1997, by such common stock certificate with a copy of the summary of rights attached thereto. The rights agreement provides that, until the distribution date, the rights will be transferred with and only with our common stock.

Until the distribution date (or earlier redemption or expiration of the rights, as provided in the rights agreement), new common stock certificates issued after March 6, 1997, upon the transfer or issuance of new shares of common stock, will contain a notation incorporating the rights agreement by reference. Until the distribution date (or earlier redemption or expiration of the rights, as provided in the rights agreement), the surrender for the transfer of any of our common stock certificates outstanding as of March 6, 1997, even without a copy of the summary of rights attached thereto, will also constitute the transfer of the rights associated with the shares of common stock represented by such certificate.

As soon as practicable following the distribution date, separate rights certificates evidencing the rights will be mailed to holders of record of the common stock as of the close of business on the distribution date, and such separate right certificates alone will evidence the rights.

Table of Contents

Exercisability. The rights are not exercisable until the distribution date. The rights will expire on March 6, 2017 unless earlier redeemed by us.

Right to Acquire Stock at Half Price. In the event that after the stock acquisition date, we are acquired in a merger or other business combination transaction or 50% or more of our assets, cash flow or earning power are sold or otherwise transferred, the rights agreement provides that proper provision shall be made so that each holder of a right, upon the exercise thereof at the then current exercise price of the right, shall be entitled to receive that number of shares of common stock of the acquiring company having a market value of two times the exercise price of the right. In the event that we are the surviving corporation of a merger and our common stock is changed or exchanged, proper provision shall be made so that each holder of a right will thereafter have the right to receive upon exercise that number of shares of common stock of the other party to the transaction having a market value of two times the exercise price of the right.

In the event that a person or group becomes an acquiring person (otherwise than pursuant to a tender offer or exchange offer for all outstanding shares of our common stock at a price and on terms which are determined to be fair and in the best interests of us and our stockholders by a majority of the members of our board of directors), proper provision shall be made so that each holder of a right, other than the acquiring person, whose rights will thereafter be void, will thereafter have the right to receive upon exercise that number of shares of our common stock having a market value (as defined in the rights agreement) of two times the exercise price of the right. A person or group will not be deemed to be an acquiring person if our board of directors determines that such person or group became an acquiring person inadvertently and such person or group promptly divests itself of a sufficient number of shares of common stock so that such person or group is no longer an acquiring person.

Adjustments. The purchase price payable and the number of shares of junior participating cumulative preferred stock or other securities or property issuable upon the exercise of the rights are subject to adjustment from time to time to prevent dilution (i) in the event of a stock dividend on or a subdivision, combination or reclassification of the shares of junior participating cumulative preferred stock, (ii) upon the fixing of a record date for the issuance to holders of junior participating cumulative preferred stock of certain rights, options or warrants to subscribe for shares of junior participating cumulative preferred stock or convertible securities at less than the current market price of shares of junior participating cumulative preferred stock or (iii) upon the fixing of a record date for the making of a distribution to holders of shares of junior participating cumulative preferred stock of evidences of indebtedness or assets (excluding regular periodic cash dividends not exceeding 125% of the last regular periodic cash dividend or dividends payable in shares of junior participating cumulative preferred stock) or of subscription rights or warrants (other than those referred to above). The number of rights and the number of shares of junior participating cumulative preferred stock issuable upon exercise of each right are also subject to adjustment in the case of a stock split, combination or stock dividend on the shares of our common stock prior to the distribution date.

With certain exceptions, no adjustment in the purchase price will be required until cumulative adjustments require an adjustment of at least 1% in the purchase price. No fractional shares of common stock will be issued and, in lieu thereof, an adjustment in cash will be made based on the market value of shares of common stock on the last trading date prior to the date of exercise.

Redemption or Exchange. At any time prior to the earlier of (i) ten business days after the stock acquisition date or (ii) March 6, 2017, we, by resolution of our board of directors, may redeem the rights in whole, but not in part, at a redemption price of \$0.01 per right. Our board of directors may extend the time within which the rights may be redeemed at any time prior to the stock acquisition date. Immediately upon the action of our board of directors electing to redeem the rights, the right to exercise the rights will terminate and the only right of the holders of rights will be to receive the redemption price.

At any time after a person becomes an acquiring person and prior to the acquisition by such person of 50% or more of our outstanding common stock, our board of directors may exchange the rights (other than rights

Table of Contents

beneficially owned by such person which have become void), in whole or in part, for our common stock at an exchange ratio of one share of common stock per right (subject to adjustment).

Preferred Stock. The shares of junior participating cumulative preferred stock purchasable upon exercise of the rights will be nonredeemable and junior to any other series of preferred stock we may issue (unless otherwise provided in the terms of such preferred stock or in our certificate of incorporation). Each share of junior participating cumulative preferred stock will be entitled to receive, in the aggregate, a dividend in an amount equal to 100 times the dividend per share of common stock, or, if greater, \$10.00 per year. In the event of liquidation, the holders of shares of junior participating cumulative preferred stock will be entitled to receive a minimum liquidation payment equal to the greater of \$100.00 per share or an amount equal to 100 times the amount to be paid in liquidation per share of common stock. Each share of junior participating cumulative preferred stock will have 100 votes, voting together with the shares of common stock. In addition, if dividends on the junior participating cumulative preferred stock are in arrears for four consecutive quarterly payment periods, the holders of the shares of junior participating cumulative preferred stock will have the right, voting as a class, to elect two members to our board of directors. In the event of any merger, consolidation or other transaction in which shares of common stock are exchanged, each share of junior participating cumulative preferred stock will be entitled to receive 100 times the amount and type of consideration received per share of common stock. The rights of the shares of junior participating cumulative preferred stock as to dividends and liquidation, and in the event of mergers and consolidations, are protected by anti-dilution provisions.

Until a right is exercised, the holder thereof, as such, will have no rights as a stockholder, including, without limitation, the right to vote or to receive dividends.

Amendment. The rights and the rights agreement can be amended by our board of directors in any respect (including, without limitation, any extension of the period in which the rights may be redeemed) at any time prior to the stock acquisition date. From and after such time, without the approval of our stockholders or the holders of the rights, the board of directors may only supplement or amend the rights agreement in order (i) to cure any ambiguity, (ii) to correct or supplement any provision contained in the rights agreement which may be defective or inconsistent with any other provision in the rights agreement, (iii) to shorten or lengthen any time period under the rights agreement, provided such lengthening is for the purpose of protecting, enhancing or clarifying the rights of or the benefits to the rights holders or (iv) to make any changes or supplements which we and the rights agent may deem necessary or desirable which shall not adversely affect the interests of the holders of right certificates (other than an acquiring person or an affiliate or associate thereof). We may, at any time prior to the stock acquisition date, amend the rights agreement to lower the threshold of common stock beneficial ownership at which a person will become an acquiring person to not less than the greater of (i) a percentage larger than the largest percentage of common stock then known by the us to be beneficially owned by a person and (ii) ten percent (10%).

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

Table of Contents

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 66 ²/₃% 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 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.

Table of Contents

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.

Table of Contents

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 financial statements 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, 2011 have been so incorporated in reliance on the report(s) of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The audited historical consolidated financial statements of Enobia Pharma Corp. which appear in Exhibit 99.2 of the Current Report on Form 8-K/A of Alexion Pharmaceuticals, Inc. dated April 16, 2012 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, independent auditors, given on the authority of said firm as experts in auditing and accounting.

Table of Contents

5,000,000 Shares
Alexion Pharmaceuticals, Inc.
Common Stock

Goldman, Sachs & Co.

J.P. Morgan

Cowen and Company