

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

FORM S-8

**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)

352 Knotter Drive, Cheshire, CT
(Address of Principal Executive Offices)

13-3648318
(I.R.S Employer
Identification No.)

06410
(Zip Code)

Amended and Restated 2004 Incentive Plan
(Full title of the plan)

Thomas I.H. Dubin, Esq.
Vice President and General Counsel
Alexion Pharmaceuticals, Inc.
352 Knotter Drive
Cheshire, Connecticut 06410
(203) 272-2596

Copies to:

Patrick O'Brien, Esq.
Ropes & Gray LLP
One International Place
Boston, Massachusetts 02110
(617) 951-7000

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

CALCULATION OF REGISTRATION FEE

Title of securities to be registered	Amount to be registered (2)	Proposed maximum offering price per share (3)	Proposed maximum aggregate offering price	Amount of registration fee
Common Stock, \$.0001 par value per share (1)	775,000	\$ 41.44	\$ 32,116,000	\$ 3,437

- (1) All shares of common stock of the registrant carry rights to purchase Junior Participating Cumulative Preferred Stock, par value \$.0001 per share. Such purchase rights are attached to and trade with the common stock. Value attributable to such rights, if any, is reflected in the market price of the common stock.
- (2) This registration statement shall also cover any additional indeterminable number of shares as may be required pursuant to Alexion Pharmaceuticals, Inc. Amended and Restated 2004 Incentive Plan in the event of a stock dividend, stock split, recapitalization or other similar change in the common stock.
- (3) The offering price of \$41.44 per share has been estimated solely for the purpose of determining the registration fee pursuant to Rule 457(c) and 457(h) (1) on the basis of the average high and low prices of the Common Stock, as reported on the Nasdaq Global Market on December 20, 2006.

EXPLANATORY NOTE

This Registration Statement is being filed to increase the number of shares of common stock, par value \$.0001 per share, of Alexion Pharmaceuticals, Inc. (along with the attached Junior Participating Cumulative Preferred Stock purchase rights) that may be issued and sold pursuant to the Alexion Pharmaceuticals, Inc. Amended and Restated 2004 Incentive Plan by 775,000 shares. Pursuant to Instruction E to Form S-8, the Registrant incorporates by reference into this Registration Statement the entire contents of its Registration Statement on Form S-8 (File No. 333-123212) filed with the Securities and Exchange Commission on March 9, 2005, except with respect to Items 5, 6, 8 and 9.

ITEM 5. Interest of Named Experts and Counsel.

Not applicable.

ITEM 6. Indemnification of Directors and Officers.

The Registrant is incorporated under the laws of the State of Delaware. Section 145 (“Section 145”) of the General Corporation Law of the State of Delaware, as the same exists or may hereafter be amended (the “DGCL”), inter alia, provides that a Delaware corporation may indemnify any persons who were, are or are threatened to be made, parties 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 an officer, director, 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. The indemnity may include 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, provided such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the corporation’s best interests and, with respect to any criminal action or proceeding, had no reasonable cause to believe that his conduct was illegal. 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. In addition, the statutes of Delaware contain provisions to the general effect that any director shall in the performance of his duties be fully protected in relying in good faith upon the books of account or records of the corporation or statements prepared by any official of the corporation.

Section 145 further authorizes a corporation to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation or enterprise, against any liability asserted against him and incurred by him in any such capacity, arising out of his status as such, whether or not the corporation would otherwise have the power to indemnify him under Section 145.

In accordance with Section 145 of the DGCL, Section EIGHTH of the company’s Certificate of Incorporation, as amended (the “Certificate”) provides that the company shall indemnify each person who is or was a director, officer, employee or agent of the company (including the heirs, executors, administrators or estate of such person) or is or was serving at the request of the company 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 the Certificate 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 stockholder 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 the company 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 the company. Section NINTH of the certificate provides that a

director of the company shall not be personally liable to the company or its 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 the company or its 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.

All of the Registrant's directors and officers are covered by insurance policies maintained by the Registrant against specified liabilities for actions taken in their capacities as such, including liabilities under the Securities Act of 1933, as amended. In addition, the Registrant has entered into indemnification agreements with each of its executive officers that provide for indemnification and expense advancement to the fullest extent permitted under the DGCL.

ITEM 8. Exhibits.

- 4.1 Amended and Restated 2004 Incentive Plan (previously filed as Annex B to the Definitive Proxy Statement on Schedule 14A on April, 25 2006, and incorporated herein by reference).
- 4.2 Rights Agreement between Alexion Pharmaceuticals, Inc. and Continental Stock Transfer & Trust Company, Rights Agent, dated as of February 14, 1997 (previously filed as Exhibit 1 to the Registration Statement on Form 8-A (Reg. No. 000-27756), filed on February 21, 1997, and incorporated herein by reference).
- 4.3 Amendment No. 1 to Rights Agreement, dated as of September 18, 2000, between Alexion Pharmaceuticals, Inc. and Continental Stock Transfer and Trust Company (previously filed as Exhibit 10.1 to the Registration Statement on Form 8-A (Reg. No. 000-27756), filed on October 6, 2000, and incorporated by reference herein).
- 4.4 Amendment No. 2 to Rights Agreement, dated as of December 12, 2001, between Alexion Pharmaceuticals, Inc. and Continental Stock Transfer and Trust Company, which includes as Exhibit B the form of Right Certificate (previously filed as Exhibit 10.1 to the Registration Statement on Form 8-A (Reg. No. 000-27756), filed on February 12, 2002, and incorporated by reference herein).
- 4.5 Amendment No. 3 to Rights Agreement, dated as of November 16, 2004, between Alexion Pharmaceuticals, Inc. and Continental Stock Transfer and Trust Company (previously filed as Exhibit 4.4 to the Registration Statement on Form 8-A (Reg. No. 000-27756), filed on November 17, 2004, and incorporated by reference herein).
- 4.6 Certificate of Incorporation, as amended (previously filed as Exhibit 3.1 to the Registration Statement on Form S-3 (Reg. No. 333-128085), filed on September 2, 2005, and incorporated herein by reference).
- 4.7 Bylaws, as amended (previously filed as Exhibit 3.2 to the Quarterly Report on Form 10-Q for the quarter ended January 31, 2004, and incorporated herein by reference).
- 5.1 Opinion of Ropes & Gray LLP.
- 23.1 Consent of Counsel (contained in exhibit 5.1).

23.2 Consent of Independent Registered Public Accounting Firm.

24.1 Power of Attorney (included on the signature page hereto).

ITEM 9. Undertakings.

(a) 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, as amended (the "Securities Act");
 - (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 a prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 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 paragraphs (a)(1)(i) and (a)(1)(ii) above shall not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement.

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

- (c) Insofar as indemnification for liabilities arising under the Securities Act 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 Commission such indemnification is against public policy as expressed in the Securities 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 Securities 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, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the Town of Cheshire, State of Connecticut on December 22, 2006.

ALEXION PHARMACEUTICALS, INC.

By: /s/ David Keiser
David W. Keiser
President and Chief Operating Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints LEONARD BELL and DAVID W. KEISER, and each of them, as his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him and in his name, place, and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments, exhibits thereto and other documents in connection therewith) to this Registration Statement, and to file the same, with all exhibits thereto, and other documents in connection therewith (including any registration statement relating to this Registration Statement and filed pursuant to Rule 462(b) of the Securities Act of 1933, as amended), with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or either of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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

<u>/s/ Leonard Bell</u> Leonard Bell	Chief Executive Officer, Secretary, Treasurer and Director (Principal Executive Officer)	December 22, 2006
<u>/s/ David W. Keiser</u> David W. Keiser	President, Chief Operating Officer and Director	December 22, 2006
<u>/s/ Vikas Sinha</u> Vikas Sinha	Senior Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	December 22, 2006

<u>/s/ Max Link</u> Max Link	Director	December 22, 2006
<u>/s/ Joseph A. Madri</u> Joseph A. Madri	Director	December 22, 2006
<u>/s/ R. Douglas Norby</u> R. Douglas Norby	Director	December 22, 2006
<u>/s/ Alvin S. Parven</u> Alvin S. Parven	Director	December 22, 2006
<u>/s/ Larry L. Mathis</u> Larry L. Mathis	Director	December 22, 2006
<u>/s/ Ruedi E. Waeger</u> Ruedi E. Waeger	Director	December 22, 2006

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ROPES & GRAY LLP
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December 22, 2006

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

Ladies and Gentlemen:

This opinion is furnished to you in connection with a registration statement on Form S-8 (the "Registration Statement"), filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended, for the registration of 775,000 shares of Common Stock, \$.0001 par value (the "Shares"), of Alexion Pharmaceuticals, Inc., a Delaware corporation (the "Company"). The Shares are issuable under the Company's Amended and Restated 2004 Incentive Plan (the "Plan").

We are familiar with the actions taken by the Company in connection with the adoption of the Plan. For purposes of our opinion, we have examined and relied upon such documents, records, certificates and other instruments as we have deemed necessary. The opinions expressed below are limited to the Delaware General Corporation Law, including the applicable provisions of the Delaware Constitution and the reported cases interpreting those laws.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized and, when the Shares have been issued and sold in accordance with the terms of the Plan, the Shares will be validly issued, fully paid and nonassessable.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement. Our consent shall not be deemed an admission that we are experts whose consent is required under Section 7 of the Securities Act of 1933.

It is understood that this opinion is to be used only in connection with the offer and sale of Shares while the Registration Statement is in effect.

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-8 of our report dated March 6, 2006 relating to the financial statements and management's assessment of the effectiveness of internal control over financial reporting and the effectiveness of internal control over financial reporting, of Alexion Pharmaceuticals, Inc., which appears in Alexion Pharmaceuticals, Inc.'s 2005 Transition Report on Form 10-K/T.

/s/ PricewaterhouseCoopers LLP

Hartford, Connecticut

December 20, 2006