AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON OCTOBER 16, 2000

REGISTRATION NO. 333-47594

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SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

AMENDMENT NO. 1
TO
FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

ALEXION PHARMACEUTICALS, INC.
(Exact Name of Registrant as Specified in Its Charter)

DELAWARE	13-3648318
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification Number)

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25 SCIENCE PARK
NEW HAVEN, CT 06511
(203) 776-1790
(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

LEONARD BELL, M.D.
ALEXION PHARMACEUTICALS, INC.
25 SCIENCE PARK
NEW HAVEN, CT 06511
(203) 776-1790
(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent for Service)

Copies of all communications, including all communications sent to the agent for service, should be sent to:
MERRILL M. KRAINES, ESQ.
LAWRENCE A. SPECTOR, ESQ.
FULBRIGHT & JAWORSKI L.L.P.
666 FIFTH AVENUE
NEW YORK, NEW YORK 10103

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC: From time to time after the effective date of this Registration Statement. If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plan, please check the following box: / /

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

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

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

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. /X/

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

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THE INFORMATION IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. WE MAY NOT SELL THESE SECURITIES UNTIL THE SECURITIES AND EXCHANGE COMMISSION DECLARES OUR REGISTRATION STATEMENT EFFECTIVE. THIS PROSPECTUS IS NOT AN OFFER TO SELL THESE SECURITIES AND IS NOT SOLICITING AN OFFER TO BY THESE SECURITIES IN ANY STATE WHERE THE OFFER OR SALE IS NOT PERMITTED.

SUBJECT TO COMPLETION, DATED OCTOBER 16, 2000

$300,000,000

[LOGO]

COMMON STOCK
WARRANTS

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- - ALEXION PHARMACEUTICALS, INC. IS OFFERING SECURITIES UP TO AN AGGREGATE OF $300,000,000

- - TRADING SYMBOL: NASDAQ NATIONAL MARKET -- ALXN

- - CLOSING PRICE OF OUR COMMON STOCK ON OCTOBER 13, 2000: $ PER SHARE

This prospectus will allow us to issue securities over time. This means:

- we will provide a prospectus supplement each time we issue securities;
- the prospectus supplement will inform you about the specific terms of that offering and may also add, update or change information contained in this document;
- you should read this document and any prospectus supplement carefully before you invest; and
- we may sell the securities through underwriters, through dealers, directly to one or more institutional purchasers or through agents.

THE SECURITIES AND EXCHANGE COMMISSION AND STATE SECURITIES REGULATORS HAVE NOT APPROVED OR DISAPPROVED OF THESE SECURITIES, OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

INVESTING IN THESE SECURITIES INVOLVES A HIGH DEGREE OF RISK.

SEE "RISK FACTORS" BEGINNING ON PAGE 3.

The date of this prospectus is October , 2000.

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YOU SHOULD RELY ONLY ON THE INFORMATION CONTAINED IN THIS PROSPECTUS AND THE DOCUMENTS INCORPORATED BY REFERENCE. WE HAVE NOT AUTHORIZED ANYONE TO PROVIDE YOU WITH INFORMATION DIFFERENT FROM THAT CONTAINED IN THIS PROSPECTUS. THE INFORMATION CONTAINED IN THIS PROSPECTUS IS ACCURATE ONLY AS OF THE DATE OF THIS PROSPECTUS, REGARDLESS OF THE TIME OF DELIVERY OF THIS PROSPECTUS OR OF ANY SALE OF COMMON STOCK OR WARRANTS. OUR BUSINESS, FINANCIAL CONDITION, RESULTS OF OPERATIONS AND PROSPECTS MAY CHANGE AFTER THAT DATE.

SUMMARY

THIS SUMMARY PROVIDES AN OVERVIEW OF SELECTED INFORMATION AND DOES NOT CONTAIN ALL THE INFORMATION YOU SHOULD CONSIDER. YOU SHOULD READ THE ENTIRE PROSPECTUS, INCLUDING THE SECTION ENTITLED "RISK FACTORS," CAREFULLY BEFORE MAKING AN INVESTMENT DECISION.

BUSINESS OF ALEXION

We are a biopharmaceutical company developing treatments for diseases in humans. Our program for developing genetically altered antibodies for the treatment of disease is our most extensive and advanced product development program.

Antibodies are proteins that bind to specific targets and are used by the immune system to protect the body. We have proprietary rights to genetically altered antibodies that can potentially be used in treatments for heart disease, diseases of the immune system, inflammation and cancer. In September 2000, we augmented our antibody product development program through the acquisition of Prolifaron, Inc. Prolifaron was a biopharmaceutical company with rights to a portfolio of potential antibody product candidates and with know-how and proprietary technology for developing antibodies.

Two of our antibody product candidates are undergoing clinical trials that test for safety, dosing and effectiveness in humans. These antibodies target specific diseases that arise when the human immune system induces undesired inflammation. These antibodies are designed to block the components of the human immune system that cause the undesired inflammation while allowing beneficial components of the immune system to remain functional. The specific component of the human immune system which these two product candidates are designed to block is called "complement."

We call one of the antibodies that is in clinical trials 5G1.1-SC. 5G1.1-SC is being tested in Phase IIb clinical trials for the treatment of acute inflammation in the human body caused by the trauma of heart and lung bypass procedures during open heart surgery and in Phase II clinical trials for the treatment of acute inflammation in the human body caused by heart attacks. We call the second antibody product candidate that is in clinical trials 5G1.1. 5G1.1 is in Phase II trials for the treatment of rheumatoid arthritis, a chronic autoimmune disease, and membranous nephritis, a kidney disease. We are also testing 5G.1.1 in Phase Ib clinical trials in patients for the treatment of psoriasis, a skin disorder, dermatomyositis, a muscle disorder, and pemphigoid, a severe inflammatory skin disorder.

We have retained all of our rights to 5G1.1. We have a collaboration agreement with Procter & Gamble Pharmaceuticals with respect to the development and commercialization of 5G1.1-SC. The initial subject of the collaboration is to study the use of 5G1.1-SC for the treatment of inflammation caused by heart and lung bypass procedures during open heart surgery, heart attacks and angioplasty procedures for un-blocking clogged arteries.

In addition to our program for developing products that inhibit the inflammatory effects of complement and our technology programs focusing on human antibody discovery and development, we are developing another type of anti-inflammatory drug known as Apogens. Apogens are designed to block disease-causing T-cells, another component of the human immune system. We are currently completing preclinical studies of our first Apogen, targeting the treatment of patients with multiple sclerosis.

We are also developing methods of blocking the human immune system to permit the use of cells and organs from non-human species in the treatment of diseases in humans. This product development program is initially targeting the treatment of patients with Parkinson's disease and patients with spinal cord injury with genetically altered pig cells.

We were incorporated in Delaware in January 1992. Our principal executive offices are located at 25 Science Park, New Haven, Connecticut 06511, and our telephone number is (203) 776-1790.

RECENT DEVELOPMENTS

CLINICAL STUDIES

In August 2000, we announced that we had completed enrollment in a Phase II clinical trial testing the safety and efficacy of 5G1.1 in approximately 200 patients with rheumatoid arthritis. We expect that these patients will receive treatment with either 5G1.1 or placebo for a three-month period. In August 2000 we also announced that we had commenced enrollment in an open-label trial of 5G1.1 in rheumatoid arthritis patients, which is designed to test safety over a twelve-month treatment period.

In September 2000, we announced that we had completed enrollment in a Phase IIb clinical trial testing the safety and efficacy of 5G1.1-SC in approximately 1,000 patients undergoing heart and lung bypass procedures during open heart surgery. In September 2000, we also announced that the FDA designated 5G1.1-SC for the treatment of patients undergoing heart and lung bypass procedures during open heart surgery as a "fast track" product eligible for expedited development and FDA review.

In October 2000, we announced that the FDA granted Orphan Drug status to 5G1.1 for the treatment of patients with dermatomyositis, a severe inflammatory muscle disorder. We are currently enrolling patients in a Phase Ib pilot clinical trial that is designed to gather data regarding the safety and biological and clinical effects of 5G1.1 in this patient population. The Orphan Drug designation provides us with market exclusivity for seven years from the drug's approval date.

PROLIFARON ACQUISITION

On September 22, 2000, we acquired Prolifaron, a privately-held biopharmaceutical company located in San Diego, California. Prolifaron is developing therapeutic antibodies addressing multiple diseases, including cancer.

The acquisition was in the form of a merger of our new wholly owned subsidiary, Alexion Antibody Technologies, Inc., and Prolifaron. In the merger, we are obligated to issue up to issued 400,000 shares of our common stock, with a value of approximately $41 million, to the stockholders of Prolifaron. We agreed to register the possible resale of those shares of common stock by the Prolifaron stockholders. We are required to file a registration statement with the SEC covering the resale of 200,000 shares within 15 days after the publication of consolidated financial statements for our fiscal quarter ending October 31, 2000. We are required to file a registration statement with the SEC covering the resale of the remaining 200,000 shares on or before April 30, 2001.

THE SECURITIES WE MAY OFFER

This prospectus is part of a registration statement (No. 333-47594) that we filed with the SEC utilizing a "shelf" registration process. Under this shelf process, we may offer from time to time up to $300,000,000 of any of the following securities, either separately or in units: common stock and warrants. This prospectus provides you with a general description of the securities we may offer. Each time we offer securities, we will provide you with a prospectus supplement that will describe the specific amounts, prices and terms of the securities being offered. The prospectus supplement may also add, update or change information contained in this prospectus.

COMMON STOCK

We may issue our common stock, par value $0.0001 per share.

WARRANTS

We may issue warrants for the purchase of common stock. We may issue warrants independently or together with other securities.

RISK FACTORS

YOU SHOULD CAREFULLY CONSIDER THE FOLLOWING RISK FACTORS BEFORE YOU DECIDE TO INVEST IN THE SECURITIES. YOU SHOULD ALSO CONSIDER THE OTHER INFORMATION IN THIS PROSPECTUS AND INFORMATION INCORPORATED BY REFERENCE IN THIS PROSPECTUS. THE RISKS AND UNCERTAINTIES BELOW ARE NOT THE ONLY ONES FACING ALEXION BECAUSE WE ARE ALSO SUBJECT TO ADDITIONAL RISKS AND UNCERTAINTIES NOT PRESENTLY KNOWN TO US. IF ANY OF THESE RISKS ACTUALLY OCCURS, OUR BUSINESS, FINANCIAL CONDITION, OPERATING RESULTS OR CASH FLOWS COULD BE HARMED.

IF WE CONTINUE TO INCUR OPERATING LOSSES, WE MAY BE UNABLE TO CONTINUE OUR OPERATIONS.

We have incurred losses since we started our company in January 1992. As of July 31, 2000, we had an accumulated deficit of approximately $67.2 million. If we continue to incur operating losses and fail to become a profitable company, we may be unable to continue our operations. Since we began our business, we have focused on research and development of product candidates. We have no products that are available for sale. We expect to continue to operate at a net loss for at least the next several years as we continue our research and development efforts, continue to conduct clinical trials and develop manufacturing, sales, marketing and distribution capabilities. Our future profitability depends on our receiving regulatory approval of our product candidates and our ability to successfully manufacture and market approved drugs. The extent of our future losses and the timing of our profitability are highly uncertain.

IF WE DO NOT OBTAIN REGULATORY APPROVAL FOR OUR DRUG PRODUCTS WE WILL NOT BE ABLE TO SELL SUCH DRUG PRODUCTS.

We cannot sell or market our drugs without regulatory approval. If we cannot obtain regulatory approval for our products, the value of our company and our results of operations will be harmed. In the United States, we must obtain approval from the U.S. Food and Drug Administration, or FDA, for each drug that we intend to sell. Obtaining FDA approval is typically a lengthy and expensive process, and approval is highly uncertain. Foreign governments also regulate drugs distributed outside the United States. None of our product candidates has received regulatory approval to be marketed and sold in the United States or any other country. We do not anticipate receiving regulatory approval of any of our product candidates for at least the next several years.

IF OUR DRUG TRIALS ARE DELAYED OR ACHIEVE UNFAVORABLE RESULTS, WE WILL NOT BE ABLE TO OBTAIN REGULATORY APPROVAL FOR OUR PRODUCTS.

We must conduct extensive testing of our product candidates before we can obtain regulatory approval for our products. We need to conduct both preclinical animal testing and clinical human trials. These tests and trials may not achieve favorable results. We would need to reevaluate any drug that did not test favorably and either alter the drug or the dose, or abandon the drug development project. In such circumstances, we would not be able to obtain regulatory approval on a timely basis, if ever.

There are other reasons why drug testing could be delayed. For human trials, patients must be recruited and each product candidate must be tested for each clinical indication, at various doses and formulations. Also, to ensure safety and effectiveness, the effect of drugs often must be studied over a long period of time, especially for the chronic diseases that we are studying. Unfavorable results or insufficient patient enrollment in our clinical trials could delay or cause us to abandon a product development program.

Additional factors that can cause delay or termination of our clinical trials include:

- slow patient enrollment;
- long treatment time required to demonstrate effectiveness;
- lack of sufficient supplies of the product candidate;

- adverse medical events or side effects in treated patients;

- lack of effectiveness of the product candidate being tested; and

- lack of sufficient funds.

IF WE FAIL TO OBTAIN THE CAPITAL NECESSARY TO FUND OUR OPERATIONS, WE WILL BE UNABLE TO CONTINUE OR COMPLETE OUR PRODUCT DEVELOPMENT.

In the future, we will need to raise substantial additional capital to fund operations and complete our product development. We may not get funding when we need it or on favorable terms. If we cannot raise adequate funds to satisfy our capital requirements, we may have to delay, scale-back or eliminate our research and development activities or future operations. We might have to license our technology to others. This could result in sharing revenues which we might otherwise retain for ourselves. Any of these actions may harm our business.

The amount of capital we may need depends on many factors, including:

- the progress, timing and scope of our research and development programs;

- the progress, timing and scope of our preclinical studies and clinical trials;

- the time and cost necessary to obtain regulatory approvals;

- the time and cost necessary to further develop manufacturing processes, arrange for contract manufacturing or build manufacturing facilities and obtain the necessary regulatory approvals for those facilities;

- the time and cost necessary to develop sales, marketing and distribution capabilities; and

- any new collaborative, licensing and other commercial relationships that we may establish.

IF OUR COLLABORATION WITH PROCTER & GAMBLE IS TERMINATED, WE MAY BE UNABLE TO COMMERCIALIZE 5G1.1-SC IN THE TIME EXPECTED, IF AT ALL, AND OUR BUSINESS WOULD BE HARMED.

We rely exclusively on Procter & Gamble to provide funding and additional resources for the development and commercialization of 5G1.1-SC. These include funds and resources for:

- clinical development and manufacturing;

- obtaining regulatory approvals; and

- sales, marketing and distribution efforts worldwide.

We cannot guarantee that Procter & Gamble will devote the resources necessary to successfully develop and commercialize 5G1.1-SC. Either party may terminate our collaboration agreement for specified reasons, including a material breach or the occurrence of a change of control.

Termination of our agreement with Procter & Gamble would cause significant delays in the development of 5G1.1-SC and result in additional development costs. We would need to fund the development and commercialization of 5G1.1-SC on our own or identify a new development partner. We might also have to repeat testing already completed with Procter & Gamble.

IF WE ARE UNABLE TO ENGAGE AND RETAIN THIRD-PARTY COLLABORATORS, OUR RESEARCH AND DEVELOPMENT EFFORTS MAY BE DELAYED.

We depend upon third-party collaborators to assist us in the development of our product candidates. If any of our existing collaborators breaches or terminates its agreement with us or does not perform its development work under the agreement, we would experience significant delays in the development or commercialization of our product candidates. We would also experience significant

delays if we cannot engage additional collaborators when required. In either event, we would be required to devote additional funds or other resources to these activities or to terminate them.

We cannot assure you that:

- we will be able to negotiate acceptable collaborative agreements to develop or commercialize our products;

- any arrangements with third parties will be successful; or

- current or potential collaborators will not pursue treatments for other diseases or seek other ways of developing treatments for our disease targets.

IF WE CANNOT PROTECT THE CONFIDENTIALITY AND PROPRIETARY NATURE OF OUR TRADE SECRETS, OUR BUSINESS AND COMPETITIVE POSITION WILL BE HARMED.

Our business requires using sensitive technology, techniques and proprietary compounds which we protect as trade secrets. However, since we are a small company, we also rely heavily on collaboration with suppliers, outside scientists and other drug companies. Collaboration presents a strong risk of exposing our trade secrets. If our trade secrets were exposed, it would help our competitors and adversely affect our business prospects.

In order to more effectively protect our drugs and technology, we need to obtain patents covering the drugs and technologies we develop. Our drugs are expensive and time-consuming to test and develop. Without patent protection, competitors may copy our methods, or the chemical structure or other aspects of our drug. Even if we obtain patents, the patents may not be broad enough to protect our drugs from copy-cat products.

IF WE ARE FOUND TO BE INFRINGING ON PATENTS OWNED BY OTHERS, WE MAY BE FORCED TO OBTAIN A LICENSE TO CONTINUE THE SALE OR DEVELOPMENT OF OUR DRUGS AND/OR PAY DAMAGES.

Parts of our technology, techniques and proprietary compounds and potential drug candidates may conflict with patents owned by or granted to others. If we cannot resolve these conflicts, we may be liable for damages or be required to obtain costly licenses. For example, we are aware of broad patents owned by others relating to the manufacture, use and sale of recombinant humanized antibodies, recombinant humanized single chain antibodies, recombinant human antibodies, recombinant human single chain antibodies, and genetically engineered animals. Many of our products are genetically engineered antibodies, including recombinant humanized antibodies, recombinant humanized single chain antibodies, recombinant human antibodies, and recombinant human single chain antibodies, and other products are tissues from animals.

We have received notices from the owners of some of these patents claiming that their patents may be relevant to the development of some of our drug candidates. In response to some of these notices, we have obtained licenses. However, with regard to other patents, we have either determined in our judgment that:

- our products do not infringe the patents;

- we do not believe the patents are valid; or

- we have identified and are testing various modifications which we believe should not infringe the patents and which should permit commercialization of our product candidates.

Any patent holders could sue us for damages and seek to prevent us from selling or developing our drugs. Legal disputes can be costly and time consuming to defend. If any of these actions are successful, we could be required to pay damages or to obtain a license to sell or develop our drugs. A required license may not be available on acceptable terms, if at all.

IF THE TESTING OR USE OF OUR PRODUCTS HARMS PEOPLE, WE COULD BE SUBJECT TO COSTLY AND DAMAGING PRODUCT LIABILITY CLAIMS.

The testing, manufacturing, marketing and sale of drugs for use in humans exposes us to product liability risks. Side effects and other problems from using our products could give rise to product liability claims against us. We might have to recall our products, if any, from the marketplace. Some of these risks are unknown at this time. For example, little is known about the potential long-term health risks of transplanting pig tissue into humans, a goal of our UniGraft product development program.

In addition, we may be sued by people who participate in our clinical trials. A number of patients who participate in such trials are already critically ill when they enter a study. Any waivers we may obtain from people who sign up for our trials may not protect us from liability or litigation. Our product liability insurance may not cover all potential liabilities. Moreover, we may not be able to maintain our insurance on acceptable terms. As a result of these factors, a product liability claim, even if successfully defended, could have a material adverse effect on our business, financial condition or results of operations.

IF WE CANNOT MANUFACTURE OUR DRUG CANDIDATES IN SUFFICIENT AMOUNTS AT ACCEPTABLE COSTS AND ON A TIMELY BASIS, WE MAY BE UNABLE TO HAVE THE NECESSARY MATERIALS FOR PRODUCT TESTING AND LATER, FOR POTENTIAL SALE IN THE MARKET. EITHER EVENT WOULD HARM OUR BUSINESS.

For our drug trials, we need to produce sufficient amounts of product for testing. We do not have the capacity to produce more than one product candidate at a time. In addition, our small manufacturing plant cannot manufacture enough of our product candidates for later stage clinical development. We depend on a few outside suppliers for manufacturing. If we experience interruptions in the manufacture of our products for testing, our drug development efforts will be delayed. If any of our outside manufacturers stops manufacturing our products or reduces the amount manufactured, we will need to find other alternatives. If we are unable to find an acceptable outside manufacturer on reasonable terms, we will have to divert our own resources to manufacturing. As a result, our ability to conduct testing would be materially adversely affected. Submission of products and new development programs for regulatory approval would be delayed. Our competitive position and our prospects for achieving profitability could be materially and adversely affected.

We have no experience or capacity for manufacturing drug products in volumes that will be necessary to support commercial sales. If we are unable to establish and maintain commercial scale manufacturing within our planned time and cost parameters, sales of our products and our financial performance will be adversely affected.

We may encounter problems in any of the following areas as we attempt to increase the scale, process or size of manufacturing:

- design, construction and qualification of manufacturing facilities that meet regulatory requirements;
- production yields from the manufacturing process;
- purity of our drug products;
- quality control and assurance;
- shortages of qualified personnel; and
- compliance with FDA regulations.

IF OUR BUSINESS AND PRODUCTS, EVEN AFTER REGULATORY APPROVAL IS OBTAINED, FAIL TO COMPLY WITH REGULATORY REQUIREMENTS, OUR ABILITY TO SELL PRODUCTS AND CONDUCT BUSINESS WILL BE HARMED.

Even if we receive regulatory approval for any product, our business will always be subject to substantial regulation by the FDA or a comparable foreign regulatory agency. The discovery of previously unknown problems with a product or its manufacture may result in restrictions on the product or manufacturer, including withdrawal of the product from the market. The consequences for failure to comply with applicable regulatory requirements can be serious, resulting in:

- warning letters;
- fines and other civil penalties;
- suspended regulatory approvals;
- refusal to approve pending applications or supplements to approved applications;
- refusal to permit exports from the United States;
- product recalls;
- seizure of products;
- injunctions;
- operating restrictions;
- total or partial suspension of production; and/or
- criminal prosecutions.

Any of these consequences could result in withdrawal of approval, or require reformulation of the drug, additional preclinical testing or clinical trials, changes in labeling of the product, and/or additional marketing applications. We would be required to expend time and resources in correcting the problem, including any adverse publicity associated with the problem, in order to put the product back on the market. These delays and uses of resources would hurt our business, profitability and reputation.

IF WE ARE UNABLE TO ESTABLISH SALES, MARKETING AND DISTRIBUTION CAPABILITIES, OR TO ENTER INTO AGREEMENTS WITH THIRD PARTIES TO DO SO, WE WILL BE UNABLE TO SUCCESSFULLY MARKET AND SELL FUTURE DRUG PRODUCTS.

We have no sales, marketing or distribution personnel or capabilities. If we are unable to establish those capabilities, either by developing our own capabilities or entering into agreements with others, we will not be able to successfully sell our products. In that event, we will not be able to generate significant revenues. We cannot guarantee that we will be able to hire the qualified sales and marketing personnel we need. We may not be able to enter into any marketing or distribution agreements on acceptable terms, if at all. We are relying on Procter & Gamble for sales, marketing and distribution of 5G.1-SC. Procter & Gamble, or any future collaborators, may not succeed at selling any of our future drug products.

IF WE ARE UNABLE TO OBTAIN REIMBURSEMENT FROM GOVERNMENT HEALTH ADMINISTRATION AUTHORITIES, PRIVATE HEALTH INSURERS AND OTHER ORGANIZATIONS FOR OUR FUTURE PRODUCTS, OUR PRODUCTS MAY BE TOO COSTLY FOR REGULAR USE AND OUR ABILITY TO GENERATE REVENUES WOULD BE HARMED.

Our future revenues and profitability will be affected by the continuing efforts of governmental and private third-party payors to contain or reduce the costs of health care through various means. If these entities refuse to provide reimbursement with respect to our products or determine to provide a low level of reimbursement, our products may be too costly for general use. Any limitation on the use of our products will have a material adverse effect on our ability to generate revenues and achieve profitability. We expect a number of federal, state and foreign proposals to control the cost of drugs

through government regulation. We are unsure of the form that any health care reform legislation may take or what actions any of these authorities and private payors may take in response to the proposed reforms. Therefore, we cannot precisely predict the effect of any reform on our business.

EVEN IF WE SUCCESSFULLY DEVELOP OUR PRODUCTS FOR TRANSPLANTING ANIMAL CELLS INTO HUMANS, THIS TECHNOLOGY MAY NOT BE ACCEPTED BY THE MARKET DUE TO MEDICAL CONCERNS OR UNANTICIPATED REGULATION.

Our program for the development of animal cells for transplantation into humans may never result in any therapeutic products. This technology is subject to extensive clinical testing and we are not aware of any such technology that has been approved for sale by the FDA or comparable foreign regulatory authorities. Even if we succeed in developing these products, our products may not be widely accepted by the medical community or third-party payors until more facts are established and ethical consensus is reached regarding the use of animal cells. In addition, concerns relating to the risk of introducing new animal viruses to infect the human species through the transplantation process may also create additional regulatory hurdles for FDA approval. If accepted, the degree of acceptance may limit the size of the market for our products. Moreover, due to the controversial nature of transplantation of animal cells into humans generally, market prices for our securities may be subject to increased volatility.

IF OUR COMPETITORS GET TO THE MARKETPLACE BEFORE WE DO WITH BETTER OR CHEAPER DRUGS, OUR DRUGS MAY NOT BE PROFITABLE TO SELL OR TO CONTINUE TO DEVELOP.

Each of Avant Immunotherapeutics, Inc, Leukosite Inc., a subsidiary of Millenium Pharmaceuticals, Inc., Tanox, Inc., Abbott Laboratories, Gliatech Inc. and Biocryst Pharmaceuticals have publicly announced their intentions to develop drugs which target the inflammatory effects of complement in the immune system. We are also aware that Pfizer, Inc., SmithKline Beecham Plc and Merck & Co., Inc. are also attempting to develop complement inhibitor therapies. Each of Cambridge Antibody Technology, PLC, MorphoSys AG and Dyax Corporation have publicly announced intentions to develop therapeutic human antibodies from libraries of human antibody genes. Additionally, each of Abgenix Inc. and Medarex, Inc. have publicly announced intentions to develop therapeutic human antibodies from mice that have been bred to include some human antibody genes. These and other large pharmaceutical companies with significantly greater resources than ours, may develop, manufacture and market better or cheaper drugs than our product candidates. They may establish themselves in the marketplace before we are able to even finish our clinical trials. Larger pharmaceutical companies also compete with us to attract academic research institutions as drug development partners, including for licensing these institutions' proprietary technology. If our competitors successfully enter into such arrangements with academic institutions, we will be precluded from pursuing those specific unique opportunities and may not be able to find equivalent opportunities elsewhere.

IF WE FAIL TO RECRUIT AND RETAIN PERSONNEL, OUR RESEARCH AND PRODUCT DEVELOPMENT PROGRAMS MAY BE DELAYED.

We are highly dependent upon the efforts of our senior management and scientific personnel. There is intense competition for qualified scientific and technical personnel. Since our business is very science-oriented and specialized, we need to continue to attract and retain such people. We may not be able to continue to attract and retain the qualified personnel necessary for developing our business. If we lose the services of, or fail to recruit, key scientific and technical personnel, our research and product development programs would be significantly and detrimentally affected.

In particular, we highly value the services of Dr. Leonard Bell, our President and Chief Executive Officer. The loss of his services could materially and adversely affect our ability to achieve our development objectives.

THE RIGHTS THAT HAVE BEEN AND MAY IN THE FUTURE BE GRANTED TO OUR STOCKHOLDERS MAY FRUSTRATE ATTEMPTS BY OTHERS TO TAKE OVER OUR COMPANY.

We have in place a shareholder rights plan, or "poison pill," which enables our board of directors to issue rights to purchase preferred stock when someone acquires 20% or more of the outstanding shares of our common stock. As a result of the plan, anyone wishing to take over the company would most likely be forced to negotiate a transaction with the company in order not to trigger the pill. If we refused to negotiate, or negotiations were unsuccessful, a proposed takeover could be frustrated. This would prevent our stockholders from participating in a takeover or tender offer which might be of substantial value to them.

In addition, under our certificate of incorporation, our board of directors is authorized to issue one or more series of preferred stock with rights and preferences determined by the board. The preferences and rights of any preferred stock may be superior to those of the holders of our common stock. By issuing preferred stock with superior rights to the common stock, the board could frustrate a person who wishes to take over the company through a tender offer for the outstanding common stock. These provisions are also intended to encourage any person interested in acquiring us to negotiate with and obtain the approval of our board of directors. These provisions could also delay, deter or frustrate a merger or change in control.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains some "forward-looking statements" as defined in the Private Securities Litigation Reform Act of 1995 and information relating to us that are based on the beliefs of our management, as well as assumptions made by and the information currently available to our management. When used in this prospectus, the words "estimate," "project," "believe," "anticipate," "intend," "expect" and similar expressions are intended to identify forward-looking statements. These statements reflect our current views with respect to future events and are subject to risks and uncertainties that could cause actual results to differ materially from those contemplated in these forward-looking statements, including those risks discussed in this prospectus.

You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this prospectus. Except for special circumstances in which a duty to update arises when prior disclosure becomes materially misleading in light of subsequent events, we do not intend to update any of these forward-looking statements to reflect events or circumstances after the date of this prospectus or to reflect the occurrence of unanticipated events.

USE OF PROCEEDS

Unless we otherwise specify in the applicable prospectus supplement, we intend to use the net proceeds from the sale of the securities to fund research and clinical development activities, manufacturing development, manufacturing and commercialization of our product candidates, drug discovery, as well as for working capital and general corporate purposes, including for potential acquisitions of additional technologies and compounds. Our management will have broad discretion in the allocation of the net proceeds of the offering. Pending such uses, we intend to invest the net proceeds in short-term, investment grade, interest-bearing securities.

DESCRIPTION OF COMMON STOCK

As of the date of this prospectus, we are authorized to issue up to 25,000,000 shares of common stock, $.0001 par value per share. As of October 5, 2000, 15,494,671 shares of common stock were outstanding.

DIVIDENDS

Holders of common stock are entitled to receive dividends, in cash, securities, or property, as may from time to time be declared by our Board of Directors, subject to the rights of the holders of the preferred stock.

VOTING

Each holder of common stock is entitled to one vote per share on all matters requiring a vote of the stockholders.

RIGHTS UPON LIQUIDATION

In the event of our voluntary or involuntary liquidation, dissolution, or winding up, the holders of common stock will be entitled to share equally in our assets available for distribution after payment in full of all debts and after the holders of preferred stock have received their liquidation preferences in full.

MISCELLANEOUS

Shares of common stock are not redeemable and have no subscription, conversion or preemptive rights. Holders of our common stock have one preferred stock purchase right for each outstanding share of common stock owned. The description and terms of the rights are set forth in a rights agreement which we entered into with Continental Stock Transfer and Trust Company, as rights agent.

DESCRIPTION OF WARRANTS

We may issue warrants for the purchase of common stock. Warrants may be issued independently or together with our common stock and may be attached to or separate from any offered securities. Each series of warrants will be issued under a separate warrant agreement to be entered into between us and a bank or trust company, as warrant agent. The warrant agent will act solely as our agent in connection with the warrants and will not have any obligation or relationship of agency or trust for or with any holders or beneficial owners of warrants. A copy of the warrant agreement will be filed with the SEC in connection with the offering of warrants.

The prospectus supplement relating to a particular issue of warrants to issue common stock will describe the terms of the warrants, including the following:

- the title of the warrants;
- the offering price for the warrants, if any;
- the aggregate number of the warrants;
- the designation and terms of the common stock that may be purchased upon exercise of the warrants;
- if applicable, the designation and terms of the securities that the warrants are issued with and the number of warrants issued with each security;
- if applicable, the date from and after which the warrants and any securities issued with the warrants will be separately transferable;

- the number of shares of common stock that may be purchased upon exercise of a warrant and the price at which the shares may be purchased upon exercise;

- the dates on which the right to exercise the warrants commence and expire;

- if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;

- the currency or currency units in which the offering price, if any, and the exercise price are payable;

- if applicable, a discussion of material United States federal income tax considerations;

- anti-dilution provisions of the warrants, if any;

- redemption or call provisions, if any, applicable to the warrants;

- any additional terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants; and

- any other information we think is important about the warrants.

PLAN OF DISTRIBUTION

We may sell the securities:

- through underwriters;

- through agents; or

- directly to purchasers.

We will describe in a prospectus supplement, the particular terms of the offering of the securities, including the following:

- the names of any underwriters;

- the purchase price and the proceeds we will receive from the sale;

- any underwriting discounts and other items constituting underwriters' compensation;

- any initial public offering price and any discounts or concessions allowed or reallowed or paid to dealers;

- any securities exchanges on which the securities of the series may be listed; and

- any other information we think is important.

If we use underwriters in the sale, the securities will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions, including negotiated transactions, either at a fixed public offering price, or at varying prices determined at the time of sale.

The securities may be either offered to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. The obligations of the underwriters to purchase securities will be subject to conditions precedent, and the underwriters will be obligated to purchase all the securities of a series if any are purchased. Any initial public offering price and any discounts or concessions allowed or reallowed or paid to dealers may be changed from time to time.

Securities may be sold directly by us or through agents designated by us from time to time. Any agent involved in the offer or sale of the securities for which this prospectus is delivered will be named, and any commissions payable by us to that agent will be set forth, in the prospectus supplement. Unless otherwise indicated in the prospectus supplement, any agent will be acting on a best efforts basis for the period of its appointment.

We may authorize agents or underwriters to solicit offers by certain types of institutions to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts. These contracts will provide for payment and delivery on a specified date in the future. The conditions to these contracts and the commissions payable for solicitation of such contracts will be set forth in the applicable prospectus supplement.

Agents and underwriters may be entitled to indemnification by us against civil liabilities arising out of this prospectus, including liabilities under the Securities Act of 1933, or to contribution for payments which the agents or underwriters may be required to make relating to those liabilities. Agents and underwriters may be customers of, engage in transactions with, or perform services for, us in the ordinary course of business.

Any series of securities may be a new issue of securities with no established trading market. Any underwriter may make a market in the securities, but won't be obligated to do so, and may discontinue any market making at any time without notice. We can't and won't give any assurances as to the liquidity of the trading market for any of our securities.

LEGAL MATTERS

Fulbright & Jaworski L.L.P., New York, New York, will pass upon the validity of the securities offered hereby and some other legal matters on behalf of Alexion.

EXPERTS

The audited consolidated financial statements, incorporated by reference in this prospectus and elsewhere in the registration statement have been audited by Arthur Andersen LLP, independent public accountants, as indicated in their report with respect thereto, and are included herein in reliance upon the authority of said firm as experts in accounting and auditing in giving said report.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and special reports, proxy statements and other information with the Securities and Exchange Commission. You may read and copy any reports, statements or other information filed by us at the Commission's public reference room at Room 1024, Judiciary Plaza, 450 Fifth Street, N.W., Washington, D.C. 20549 and the regional offices of the Commission located at Seven World Trade Center, 13th Floor, New York, New York 10048, and 500 West Madison Street, Chicago, Illinois 60661. Copies of such material can be also obtained from the Public Reference Section of the Commission at 450 Fifth Street, N.W., Washington, D.C. 20549, and its public reference rooms in New York, New York and Chicago, Illinois, at prescribed rates. Please call the Commission at 1-800-SEC-0330 for further information on the public reference rooms. Copies of such information may also be inspected at the reading room of the library of the National Association of Securities Dealers, Inc., 1735 K Street, N.W., Washington, D.C. 20006. Our filings with the Commission are also available to the public from commercial document retrieval services and at the Commission's web site at "http://www.sec.gov."

We "incorporate by reference" the information we file with the Commission (File No. 0-27756), which means that we can disclose important information to you by referring you to another document we filed with the Commission. The information incorporated by reference is an important part of this prospectus, and information that we file later with the Commission will automatically update and supersede this information. We incorporate by reference the documents listed below and any filings made with the Commission under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, after the date of this prospectus but before the end of any offering made under this prospectus:

- our current reports on Form 8-K, filed on September 25, 2000 and October 3, 2000;

- our annual report on Form 10-K for the fiscal year ended July 31, 2000, filed on October 6, 2000;

- our registration statement on Form 8-A, filed on February 21, 1997, as amended on October 6, 2000; and

- our registration statement on Form 8-A, filed on February 12, 1996.

You should read the information relating to us in this prospectus together with the information in the documents incorporated by reference.

Any statement contained in a document incorporated by reference herein, unless otherwise indicated therein, speaks as of the date of the document. Statements contained in this prospectus may modify or replace statements contained in the documents incorporated by reference.

We will furnish without charge to you, upon written or oral request, a copy of any or all of the documents described above, except for exhibits to such documents, unless such exhibits are specifically incorporated by reference into such documents. Requests should be addressed to: Alexion Pharmaceuticals, Inc., 25 Science Park, New Haven, Connecticut 06511, (203) 776-1790, Attention: David W. Keiser, Executive Vice President and Chief Operating Officer.

[LOGO]

$300,000,000
COMMON STOCK
WARRANTS

PROSPECTUS

October , 2000

PART II

ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.

The following table sets forth Alexion Pharmaceuticals, Inc. (the "Company") estimates (other than the SEC registration fee) of the expenses in connection with the issuance and distribution of the securities being registered. None of the following expenses are being paid by the selling stockholders.

SEC registration fee	$ 79,200.00
Legal fees and expenses	$100,000.00
Accounting fees and expenses	$ 65,000.00
Miscellaneous expenses	$155,800.00
Total:	$400,000.00

ITEM 15. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

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

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

In accordance with Section 145 of the DGCL, Section EIGHTH of 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 shareholders or disinterested directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be a director, officer, employee or

agent and shall inure to the benefit of the heirs, executors and administrators of such a person. Expenses (including attorneys' fees) incurred in defending a civil, criminal, administrative or investigative action, suit or proceeding shall be paid by 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.

ITEM 16. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.

(a) Exhibits.

5.1.....	Opinion of Fulbright & Jaworski L.L.P. regarding legality.+
23.1.....	Consent of Fulbright & Jaworski L.L.P. (included in Exhibit 5.1).+
23.2.....	Consent of Arthur Andersen LLP.+
24.1.....	Power of Attorney.*

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+ Filed herewith.

* Previously filed.

(b) Financial Statement Schedules.

None.

ITEM 17. 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 of this registration statement;

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

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement; and

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

Provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement.

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

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

(4) To deliver or cause to be delivered with the prospectus, to each person to whom the prospectus is sent or given, the latest annual report, to security holders that is incorporated by reference in the prospectus and furnished pursuant to and meeting the requirements of Rule 14a-3 or Rule 14c-3 under the Securities Exchange Act of 1934; and, where interim financial information required to be presented by Article 3 of Regulation S-X is not set forth in the prospectus, to deliver, or cause to be delivered to each person to whom the prospectus is sent or given, the latest quarterly report that is specifically incorporated by reference in the prospectus to provide such interim financial information.

(5) That, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 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.

(6) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the provisions described under Item 15 above, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

(7) For purposes of determining liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

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-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of New Haven and State of Connecticut on the 16th day of October, 2000.

ALEXION PHARMACEUTICALS, INC.

By: /s/ LEONARD BELL
Leonard Bell, M.D.
PRESIDENT, CHIEF EXECUTIVE OFFICER, SECRETARY AND TREASURER

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

NAME	TITLE	DATE
By: /s/ LEONARD BELL Leonard Bell, M.D.	President, Chief Executive Officer, Secretary, Treasurer and Director (principal executive officer)	October 16, 2000
* David W. Keiser	Executive Vice President and Chief Operating Officer (principal financial officer)	October 16, 2000
* Barry P. Luke	Vice President of Finance and Administration (principal accounting officer)	October 16, 2000
* John H. Fried Ph.D.	Chairman of the Board of Directors	October 16, 2000
* Jerry T. Jackson	Director	October 16, 2000
* Max Link, Ph.D.	Director	October 16, 2000
* Joseph A. Madri, Ph.D., M.D.	Director	October 16, 2000

NAME	TITLE	DATE
*		
Leonard Marks, Jr., Ph.D.	Director	October 16, 2000
*		
R. Douglas Norby	Director	October 16, 2000
*		
Alvin S. Parven	Director	October 16, 2000

*By Leonard Bell as attorney-in-fact.

EXHIBIT INDEX

EXHIBIT NUMBER	EXHIBIT
5.1	Opinion of Fulbright & Jaworski L.L.P. regarding legality.+
23.1	Consent of Fulbright & Jaworski L.L.P. (included in Exhibit 5.1).+
23.2	Consent of Arthur Andersen LLP.+
24.1	Power of Attorney.*

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+ Filed herewith.

* Previously filed.

EXHIBIT 5.1

[Letterhead of Fulbright & Jaworski L.L.P.]

October 16, 2000

Securities and Exchange Commission
450 Fifth Street, NW
Washington, DC 20549

Ladies & Gentlemen:

We refer to the Registration Statement on Form S-3 (the "Registration Statement"), filed by Alexion Pharmaceuticals, Inc. (the "Company") with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "Act"), relating to the proposed issuance and sale from time to time pursuant to Rule 415 under the Act of up to $300,000,000 of common stock, $.0001 par value ("Common Stock"), of the Company and/or warrants to purchase Common Stock (the "Warrants") of the Company (the Common Stock and Warrants are collectively referred to herein as the "Securities").

As counsel for the company, we have examined such corporate records, documents and such questions of law as we have considered necessary or appropriate for purposes of this opinion and, upon the basis of such examination, advise you that, assuming that: (i) the Registration Statement and any amendments thereto (including post-effective amendments) will have become effective and comply with all applicable laws; (ii) the Registration Statement will be effective and will comply with all applicable laws at the time the Securities are offered or issued as contemplated by the Registration Statement; (iii) a Prospectus Supplement, Pricing Supplement or term sheet will have been prepared and filed with the Securities and Exchange Commission describing the Securities offered thereby and will comply with all applicable laws; (iv) all Securities will be issued and sold in compliance with applicable federal and state securities laws and in the manner stated in the Registration Statement and the appropriate Prospectus Supplement; (v) a definitive purchase, underwriting or similar agreement with respect to any Securities offered or issued will have been duly authorized and validly executed and delivered by the Company and the other parties thereto; and (vi) any Securities issuable upon conversion, exchange or exercise of any Security being offered or issued will be duly authorized, created and, if appropriate, reserved for issuance upon such conversion, exchange or exercise, in our opinion:

(1) with respect to shares of Common Stock, when both (A) the Board of Directors has taken all necessary corporate action to approve the issuance of and the terms of the offering of the shares of Common Stock and related matters and (B) certificates representing the shares of Common Stock have been duly executed, countersigned, registered and delivered either (i) in accordance with the applicable definitive purchase, underwriting or similar agreement approved by

the Board upon payment of the consideration therefor (not less than the par value of the Common Stock) provided for therein or (ii) upon conversion or exercise of any other Security, in accordance with the terms of such Security or the instrument governing such Security providing for such conversion or exercise as approved by the Board, for the consideration approved by the Board (not less than the par value of the Common Stock), then the shares of Common Stock will be validly issued, fully paid and nonassessable; and

(2) with respect to the Warrants, when (A) the Board of Directors has taken all necessary corporate action to approve the creation of and the issuance and terms of the Warrants, the terms of the offering thereof, and related matters, (B) the Warrant Agreement or Agreements relating to the Warrants have been duly authorized and validly executed and delivered by the Company and the Warrant Agent appointed by the Company, and (C) the Warrants or certificates representing the Warrants have been duly executed, countersigned, registered and delivered in accordance with the appropriate Warrant Agreement or Agreements and the applicable definitive purchase, underwriting or similar agreement approved by the Board upon payment of the consideration therefor provided for therein, the Warrants will be validly issued.

We consent to the filing of this opinion as an exhibit to the Registration Statement and the reference to this firm under the caption "Legal Matters" in the prospectus contained therein and elsewhere in the Registration Statement and Prospectus. This consent is not to be construed as an admission that we are a party whose consent is required to be filed with the Registration Statement under the provisions of the Act.

Very truly yours,

/s/ Fulbright & Jaworski L.L.P.

EXHIBIT 23.2

CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

As independent public accountants, we hereby consent to the incorporation by reference in this registration statement of our report dated September 5, 2000 (except with respect to the matter discussed in Note 15 as to which the date is September 22, 2000) included in Alexion Pharmaceuticals, Inc.'s Form 10-K for the year ended July 31, 2000 and to all references to our Firm included in this registration statement.

/s/ ARTHUR ANDERSEN LLP

Hartford, Connecticut
October 13, 2000