As filed with the Securities and Exchange Commission on February 8, 1999
REGISTRATION NO. 333-

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	13-3648318
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)

25 SCIENCE PARK, SUITE 360
NEW HAVEN, CONNECTICUT 06511
(203) 776-1790
(Address of Principal Executive Offices)

ALEXION PHARMACEUTICALS, INC.
1992 STOCK OPTION PLAN FOR OUTSIDE DIRECTORS
(Full Title of the Plan)

LEONARD BELL, M.D.
ALEXION PHARMACEUTICALS, INC.
25 SCIENCE PARK, SUITE 360
NEW HAVEN, CONNECTICUT 06511
(203) 776-1790
(Name, address, including area code, and telephone number 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.
FULBRIGHT & JAWORSKI L.L.P.
666 FIFTH AVENUE
NEW YORK, NEW YORK 10103
(212) 318-3261

CALCULATION OF REGISTRATION FEE

TITLE OF SECURITIES TO BE REGISTERED	AMOUNT TO BE REGISTERED	PROPOSED MAXIMUM OFFERING PRICE PER SHARE(1)	PROPOSED MAXIMUM AGGREGATE OFFERING PRICE(1)	AMOUNT OF REGISTRATION FEE
Common Stock, par value of $.0001 per share.....	200,000 shares	$13.375	$2,675,000	$745.00

(1) The price is estimated pursuant to Rule 457(h) of the Securities Act of 1933, as amended (the "Act"), solely for the purpose of calculating the registration fee and is the product resulting from

multiplying 200,000, the number of shares registered by this Registration Statement as to which options may be granted under the Alexion Pharmaceuticals, Inc. 1992 Stock Option Plan for Outside Directors, by $13.375, the average of the high and low prices of Alexion Pharmaceuticals, Inc. Common Stock as reported on The Nasdaq National Market on February 2, 1999.

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PART I

INFORMATION REQUIRED IN THE SECTION 10(A) PROSPECTUS

In accordance with the rules and regulations of the Securities and Exchange Commission, the documents containing the information called for in Part I of Form S-8 will be sent or given to individuals who participate in Alexion Pharmaceuticals, Inc. 1992 Stock Option Plan for Outside Directors and are not being filed with or included in this Form S-8.

PROSPECTUS STATEMENT

The material which follows, up to but not including the page beginning Part II of this Registration Statement, constitutes a prospectus, prepared in accordance with the requirements of Part I of Form S-3 pursuant to General Instruction C to Form S-8, to be used in connection with resales of securities acquired under the Alexion Pharmaceuticals, Inc. 1992 Stock Option Plan for Outside Directors by certain directors qualifying under such employee benefit plan, as defined in Rule 405 under the Securities Act of 1933, as amended.

SUBJECT TO COMPLETION, DATED FEBRUARY 8, 1999

PROSPECTUS

200,000 SHARES OF COMMON STOCK

ALEXION PHARMACEUTICALS, INC.
25 SCIENCE PARK, SUITE 360
NEW HAVEN, CT 06511
(203) 776-1790

This prospectus relates to the offer and sale of up to 200,000 shares of our common stock by certain selling stockholders. These selling stockholders are directors who have acquired or may acquire these shares upon the exercise of stock options. The stock options were or will be granted pursuant to Alexion Pharmaceuticals, Inc. 1992 Stock Option Plan for Outside Directors. On February 5, 1999, the closing price of the Common Stock was $13 7/8 per share.

The selling stockholders may offer their shares from time to time, in different types of transactions, including brokerage and negotiated transactions or otherwise, at market prices prevailing at the time of sale or at negotiated or other prices.

We will receive no proceeds from any of these sales although we will receive the exercise prices of the stock options.

NASDAQ NATIONAL MARKET(SM) TRADING SYMBOL - ALXN

THIS INVESTMENT INVOLVES A HIGH DEGREE OF RISK. YOU SHOULD PURCHASE SHARES ONLY IF YOU CAN AFFORD A COMPLETE LOSS. SEE "RISK FACTORS" BEGINNING ON PAGE 10.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

THE DATE OF THIS PROSPECTUS IS FEBRUARY 8, 1999.

THE INFORMATION IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. THE SELLING STOCKHOLDERS MAY NOT SELL THESE SECURITIES UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PROSPECTUS IS NOT AN OFFER TO SELL THESE SECURITIES AND IT IS NOT SOLICITING AN OFFER TO BUY THESE SECURITIES IN ANY STATE WHERE THE OFFER OR SALE IS NOT PERMITTED.

TABLE OF CONTENTS

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 are allowed to "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 future filings made with the Commission under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, until the selling stockholders sell all of the shares of common stock:

(a) Our Annual Report on Form 10-K for the fiscal year ended July 31, 1998;

(b) Our Quarterly Report on Form 10-Q for the quarterly period ended October 31, 1998;

(c) Our Current Reports on Form 8-K, filed on October 9, 1998, December 31, 1998 and January 29, 1999; and

(d) Our Registration Statement on Form 8-A, dated 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 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, Suite 360, New Haven, Connecticut 06511, (203) 776-1790, Attention: David W. Keiser, Executive Vice President and Chief Operating Officer. We furnish our stockholders with an annual report containing audited financial statements. In addition, we may furnish such other reports as may be authorized, from time to time, by the Board of Directors.

This prospectus is part of a registration statement we filed with the Commission. You should rely only on the information incorporated by reference or provided in this prospectus or any supplement. We have not authorized anyone else to provide you with different information. The selling stockholders will not make an offer of the shares of common stock in any state where the offer is not permitted. You should not assume that the information in this prospectus or any supplement is accurate as of any date other than the date on the front of those documents.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains certain "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 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 forward-looking 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 under "Risk Factors." You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date on this prospectus. We have no obligation to publicly release any revisions to these forward-looking statements to reflect events or circumstances after the date of this prospectus or to reflect the occurrence of unanticipated events.

PROSPECTUS SUMMARY

THIS SUMMARY HIGHLIGHTS SELECTED INFORMATION FROM THIS PROSPECTUS AND MAY NOT CONTAIN ALL OF THE INFORMATION THAT IS IMPORTANT TO YOU. TO UNDERSTAND THE TERMS OF OUR SECURITIES, YOU SHOULD CAREFULLY READ THIS DOCUMENT. YOU SHOULD ALSO READ THE DOCUMENTS WE HAVE REFERRED YOU TO IN THE SECTION ENTITLED "WHERE YOU CAN FIND MORE INFORMATION" ON PAGE 1 FOR INFORMATION ON OUR COMPANY AND OUR FINANCIAL STATEMENTS.

OUR BUSINESS

We are a biopharmaceutical company engaged in the research and development of proprietary immunoregulatory compounds for the treatment of autoimmune and cardiovascular diseases. We are developing C5 complement inhibitors and apogens, two classes of potential therapeutic compounds designed to selectively target specific disease-causing segments of the immune system. We believe that our C5 inhibitors and apogens, which are based upon distinct immunoregulatory technologies, may have the advantage of achieving a higher level of efficacy with the potential for reduced side effects when compared to existing therapeutic approaches. For the longer term, as an outgrowth of our core technologies, we are developing non- human cell tissue and our Unigraft organ products which are designed for transplantation into humans, or xenotransplantation, without clinical rejection.

KEY DISEASE TARGETS FOR OUR C5 INHIBITOR PROGRAM

- Acute coronary syndromes, including cardiopulmonary bypass, acute myocardial infarction, coronary angioplasty and unstable angina
- Autoimmune disorders, including systemic lupus and rheumatoid arthritis

KEY DISEASE TARGETS FOR OUR APOGEN PROGRAM

- Autoimmune disorders, including multiple sclerosis and diabetes mellitus

KEY DISEASE TARGETS FOR OUR UNIGRAFT PROGRAM

- Spinal cord injury
- Parkinson's disease
- Organ failure

Currently, we are conducting human clinical trials in cardiopulmonary bypass, rheumatoid arthritis and systemic lupus patients. We need to undertake and complete further tests in order to confirm our beliefs. There can be no assurance as to the results of any of these tests.

OUR DRUG DEVELOPMENT STRATEGY

Our strategy is to develop novel immunoregulatory therapeutics for disease states, disorders and clinical indications for which we believe treatment options are either non-existent or inadequate.

Currently available therapies for certain autoimmune, cardiovascular and neurologic diseases, in which the immune system attacks the patient's own tissue, broadly suppress the entire immune system, thus causing potentially severe side effects. In contrast, our proprietary compounds are designed to be more

effective with reduced side effects when compared to currently available therapies by generally targeting only the specific disease-causing segments of the immune system, leaving the remaining segments of the immune system intact to perform their normal protective functions.

INTRODUCTION TO THE HUMAN IMMUNE SYSTEM

The role of the human immune system is to defend the body from attack or invasion by infectious agents or pathogens. This is accomplished through a complex system of proteins and cells, primarily complement proteins, antibodies and various types of white blood cells, each with a specialized function. Under normal circumstances, complement proteins, together with antibodies and white blood cells, act beneficially to protect the body by removing pathogenic microorganisms, cells containing antigens (foreign proteins) and disease-causing immune complexes (combinations of antigens and antibodies). However, any number of stimuli (including antibodies, pathogenic microorganisms, injured tissue, normal tissue, proteases (inflamma tory enzymes) and artificial surfaces) can locally activate complement proteins in a cascade of enzymatic and biochemical reactions (the "complement cascade") to form inflammatory byproducts. In the case of cardio vascular disorders such as myocardial infarction (death of heart tissue), this may lead to additional significant damage to the heart tissue, and, in the case of rheumatoid arthritis, this may lead to severe joint inflammation. T-cells, a type of white blood cell, play a critical role in the normal immune response by recognizing cells containing antigens, initiating the immune response, attacking the antigen-containing tissue and directing the production of antibodies targeting the antigens, resulting in the elimination of the antigen-bearing foreign organism. When a T-cell mistakenly attacks host tissue, the T-cell may cause an inflammatory response resulting in tissue destruction and severe autoimmune disease. In the case of multiple sclerosis, this may cause severe and crippling destruction of nerve fibers in the brain.

C5 COMPLEMENT INHIBITOR IMMUNOTHERAPEUTICS

We are developing specific and potent biopharmaceutical C5 inhibitors which are designed to intervene in the complement cascade at what we believe to be the optimal point so that the disease-causing actions of complement proteins generally are inhibited while the normal disease-preventing functions of complement proteins generally remain intact. In laboratory and animal models of human disease, we have shown that our C5 inhibitors are effective in substantially preventing inflammation during cardiopulmonary bypass, reducing tissue damage during myocardial infarction, reducing the incidence and severity of inflammation and joint damage in rheumatoid arthritis, enhancing survival in lupus, and preserving kidney function in nephritis or kidney inflammation.

We are currently developing two C5 inhibitors:

- 5G1.1-SC: a short-acting, compatible for human use, single chain antibody for treating acute coronary syndromes, including cardiopulmonary bypass procedures and myocardial infarction; and

- 5G1.1: a long-acting, compatible for human use, monoclonal antibody for treating chronic disorders such as lupus and rheumatoid arthritis.

SUMMARY OF C5 INHIBITOR PRODUCT DEVELOPMENT

COLLABORATION AGREEMENT WITH PROCTER & GAMBLE PHARMACEUTICALS

In January 1999, we entered into a collaboration agreement with Procter & Gamble Pharmaceuticals, a part of Procter & Gamble Company, to develop and commercialize 5G1.1-SC. Under the terms of the agreement, together with Procter & Gamble, we will assess 5G1.1-SC for use in coronary artery bypass graft surgery, angioplasty and other acute cardiovascular problems, such as myocardial infarction and unstable angina, as well as other applications. The collaboration includes the potential for us to receive up to $95 million in payments, which will include an upfront license fee, milestone payments and research and development support payments. While we and Procter & Gamble will jointly design and implement clinical development, by terms of the agreement, Procter & Gamble is to pay for all of the costs of clinical development and manufacturing. We will also receive royalties if and when products are sold. We have also retained U.S. co-promotion rights and worldwide manufacturing rights for the drug. Procter & Gamble received U.S. co-promotion rights, as well as marketing rights outside of the United States. Procter & Gamble does not have rights to any other product we are developing.

CARDIOPULMONARY BYPASS

In March 1996, we filed an investigational new drug application with the U.S. Food and Drug Administration for 5G1.1-SC, our lead anti-inflammatory complement inhibitor drug candidate. After receiving FDA authorization, we began a Phase I clinical trial in healthy male volunteers in June 1996. Results of the Phase I trial indicated that a single dose administration of 5G1.1-SC was safe and well-tolerated in the study population. In September 1996, we received FDA authorization for our second clinical trial. In October 1996, we commenced a Phase I/II study of 5G1.1-SC in patients undergoing cardiopulmonary bypass.

In July 1997, we released preliminary results from this Phase I/II clinical study of 17 patients undergoing cardiopulmonary bypass. Treatment with 5G1.1-SC reduced the more than ten-fold increase in the level of activated complement byproducts experienced by patients on placebo during cardiopulmonary bypass in a dose-dependent manner. With FDA approval, we initiated a Phase IIa cardiopulmonary bypass clinical study including an additional 18 patients. In October 1997, additional preliminary results indicated that 5G1.1-SC significantly reduced leukocyte activation (inflammation) as compared to placebo. In April 1998, we announced clinical results from the Phase I/II and Phase IIa cardiopulmonary bypass studies which indicated that 5G1.1-SC significantly reduced cardiac damage, new cognitive (brain) deficits and blood loss in patients undergoing coronary artery bypass graft surgery with cardiopulmonary bypass.

In December 1998, we commenced dosing patients undergoing coronary artery bypass graft surgery with or without accompanying valve surgery during cardiopulmonary bypass in a Phase IIb clinical trial with 5G1.1-SC. This study is designed to gather clinical data to augment and extend previous findings regarding the safety profile and pharmacokinetics of 5G1.1-SC and its efficacy in reducing the life-threatening inflammatory complications that can be triggered by cardiopulmonary bypass procedures.

ACUTE MYOCARDIAL INFARCTION

In November 1998, we commenced dosing subjects in a Phase I clinical trial that was designed to evaluate dosing regimens for subsequent cardiopulmonary bypass and myocardial infarction clinical trials. Later that month, we announced the successful completion of the first stage of this trial and selection of a dosing regimen for the subsequent cardiopulmonary bypass trial. The results of this trial indicated that 5G1.1- SC was well tolerated at doses more than three times as high as had been previously administered.

As a result of positive results in preclinical studies, we plan to file in 1999 an investigational new drug application using 5G1.1-SC for the treatment of acute myocardial infarction or heart attack.

RHEUMATOID ARTHRITIS

In December 1997, we filed an investigational new drug application with the FDA for 5G1.1 in the treatment of rheumatoid arthritis in patients. After receiving FDA authorization, we began a Phase I/II multi- center clinical trial in rheumatoid arthritis patients in July 1998. We completed patient dosing in December 1998.

LUPUS NEPHRITIS

In late December 1997, we filed an investigational new drug application with the FDA for 5G1.1 in a clinical indication for the treatment of patients suffering from Systemic Lupus Erythematosus. After receiving FDA authorization, we began a Phase I/II clinical trial in lupus patients in July 1998. We completed patient dosing in January 1999.

APOGEN IMMUNOTHERAPEUTICS

Our apogen compounds are based upon discoveries at the National Institutes of Health, which are exclusively licensed to Alexion, and upon further discoveries by Alexion. The highly specific recombinant apogens under development are designed to selectively eliminate disease-causing T-cells in patients with certain autoimmune diseases, including multiple sclerosis and diabetes mellitus. We have demonstrated that our lead proprietary apogen, MP4, is effective at preventing neurologic disease in animal models of multiple sclerosis.

SUMMARY OF APOGEN PRODUCT DEVELOPMENT

MULTIPLE SCLEROSIS

In February 1998, we filed an investigational new drug application with the FDA for MP4 for the treatment of patients suffering from multiple sclerosis. After completion of additional preclinical studies and amendment of the clinical protocol in line with the preferred route of administration, we expect to initiate a Phase I/II clinical trial in multiple sclerosis patients.

DIABETES MELLITUS

We are currently developing apogen DM which is designed to prevent and treat insulin-dependent diabetes mellitus by eliminating antigen-specific T-cells which are responsible for the pancreatic B-cell destruction. We have established animal models of diabetes and have commenced initial preclinical studies with apogen DM prototypes. In June 1998, at the American Diabetes Association's 58th Annual Scientific

Sessions, we presented preclinical data indicating that a new drug candidate, IG2, was highly effective in suppressing the development of insulin-dependent diabetes mellitus in two different animal models.

THE UNIGRAFT PROGRAM

ORGAN AND TISSUE TRANSPLANTATION

Building upon our core technologies, we are developing non-human cell tissue and organ UniGraft products which are designed for transplantation into humans (xenotransplantation) without clinical rejection.

Rejection of non-human tissue by patients is generally believed to occur in two stages:

- Hyperacute phase, which is very rapid, extending from minutes to hours; and
- Acute phase, which is somewhat less rapid, extending from days to months.

We are designing UniGraft products to resist both complement/antibody-mediated hyperacute rejection and T-cell-mediated acute rejection. We have commenced studies employing the UniGraft technologies during preclinical transplantation of genetically engineered and proprietary porcine cells and organs. Currently, pigs are a preferred source of organ supply because the anatomy, size, and physiology of their hearts and other organs are similar to human organs. We have genetically engineered porcine cells that are resistant to lysis (break-up) and activation by human complement proteins. We have also discovered and designed porcine- specific antibodies which have been demonstrated to selectively and significantly block the human T-cell response to porcine tissue in IN VITRO studies. We are currently using our immunoregulatory and molecular engineering technologies in order to develop UniGraft cells to treat Parkinson's disease and injuries to the spinal cord, hearts, lungs, livers, pancreases and kidneys.

We have been focusing some of our efforts in this program at developing an effective treatment for patients with spinal cord injury. Collaborating scientists presented data at the 28th Meeting of the Society for Neuroscience in November 1998 describing our novel approaches to the transplantation of pig cells which may have implications for the treatment of spinal cord injury patients. The report of the preclinical study included data showing that our transgenic pig cells form a sheath around damaged neurons in animals whose spinal cords were surgically severed. The data also showed that the animal spinal cords that had received the pig cell transplants showed restoration of normal nerve signal conduction.

We have also been attempting to develop effective treatments for patients with Parkinson's Disease. Collaborating scientists presented data at the 28th Meeting of the Society for Neuroscience in November 1998 describing our novel approaches to the transplantation of our transgenic pig brain cells which have implications for the treatment of patients with Parkinson's, Alzheimer's or Huntington's Diseases. The report of the preclinical study included data showing restoration of brain function obtained following the first xenotransplantation of transgenic pig nerve cells (neurons) in an animal model of Parkinson's Disease.

We began developing our Unigraft products in collaboration with United States Surgical Corporation. During 1998, Tyco International, Inc. acquired United States Surgical. In December 1998, we signed a letter of intent with Tyco to reacquire the rights to all aspects of our xenotransplantation program that had been obtained by Tyco when Tyco acquired United States Surgical. We are currently in the process of completing definitive agreements in this regard.

ADDITIONAL INFORMATION

We were founded in New Haven, Connecticut in January 1992 with scientific founders largely drawn from the faculty of Yale University. We incorporated in Delaware in 1992. Our principal executive offices are at 25 Science Park, New Haven, Connecticut 06511, and our telephone number is (203) 776-1790.

RISK FACTORS

IN ADDITION TO THE OTHER INFORMATION IN THIS PROSPECTUS, THE FOLLOWING FACTORS SHOULD BE CONSIDERED CAREFULLY IN EVALUATING AN INVESTMENT IN THE SHARES OF COMMON STOCK OFFERED BY THIS PROSPECTUS.

OPERATING LOSSES; UNCERTAINTY OF FUTURE PROFITABILITY. We have generated no revenues from product sales. We depend on our research and development contracts, external financing, other contracts and grants to the extent that they can be obtained and interest income to pursue our intended business activities. We have incurred losses since inception. We have an accumulated deficit of approximately $44.2 million through October 31, 1998. Losses have resulted principally from research costs in identifying and developing new products and from general and administrative costs. We expect to incur substantial additional operating losses over the next several years and expect losses to increase as our research and development efforts expand and clinical trials continue and potentially expand. Our ability to achieve profitability depends on many factors, including:

- obtaining and maintaining patent protection and regulatory approval for our products;
- obtaining licenses from third parties to use technology which we may need ;
- entering into agreements for product development and commercialization with corporate partners; and
- developing the capacity to manufacture and sell products.

We may not:

- successfully develop, commercialize, manufacture or market any of our potential products,
- obtain required regulatory approvals, patents or third party licenses to technology or
- ever achieve profitability.

EARLY STATE OF PRODUCT DEVELOPMENT; RISKS OF CLINICAL TRIALS. Our research and development programs are still at an early stage with only certain of our potential products undergoing clinical trials. Our drug discovery efforts may not result in the development of commercially successful therapeutic drugs. Any potential products we identify will require:

- significant additional development;
- preclinical and clinical testing;
- regulatory approval; and
- additional investment prior to their commercialization.

Each stage of product development may never be achieved. Potential products may:

- be ineffective or cause harmful side effects or unexpected results during preclinical testing or clinical trials;
- fail to receive necessary regulatory approvals;
- be difficult to manufacture on a large scale;
- fail to achieve market acceptance; and/or
- be uneconomical or be precluded from commercialization by proprietary rights of third parties.

The results from preclinical studies and early clinical trials may not be predictive of results that will be obtained in large-scale clinical trials and do not necessarily predict or prove safety or efficacy in humans.

Further, clinical trials of our product candidates may not demonstrate sufficient safety and efficacy to obtain the requisite regulatory approvals or may not result in marketable products. Clinical trials are often conducted with patients that are critically ill. During the course of treatment, these patients can die or suffer other adverse medical effects for reasons that may not be related to the pharmaceutical agent being tested but which can nevertheless affect clinical trial results. A number of companies in the pharmaceutical industry have suffered significant setbacks in advanced clinical trials, even after promising results in earlier trials. Any setback could have a material adverse effect on our business, financial condition and results of operations. The completion of clinical trials of our product candidates may be delayed by many factors. We cannot assure you that delays or terminations will not occur. One factor is the rate of enrollment of patients, which generally varies throughout the course of a clinical trial and which depends on:

- the size of the patient population and the number of clinical trial sites;
- the proximity of patients to clinical trial sites;
- the performance of the clinical trial sites; and
- the eligibility criteria for the clinical trial and the existence of competing clinical trials.

We cannot control the rate at which patients present themselves for enrollment. We cannot assure you that the rate of patient enrollment will be consistent with our expectations or be sufficient to enable clinical trials of our product candidates to be completed in a timely manner. Further, we cannot be certain that clinical trial materials will be produced in a timely manner, if at all.

NEED FOR ADDITIONAL FUNDS. We will require substantial additional funds for:

- for conducting clinical trials;
- our research and product development programs;
- for operating expenses;
- for pursuing regulatory approval; and
- for developing required production, sales and marketing capabilities.

Except for a term loan facility for $1.2 million from a commercial bank for the financing of certain capital expenditures and a collaboration agreement with Procter and Gamble, we do not currently have any commitments or arrangements to obtain any additional funds. Funds for these purposes, whether through additional sales of securities or collaborative or other arrangements with corporate partners or from other sources, may not be available to us when needed or on terms favorable to us. The unavailability of additional financing could require us to delay, scale back or eliminate some or all of our research and product development programs or to license third parties to commercialize products or technologies that we would otherwise undertake itself. Any of these actions would have a material adverse effect on us. We believe that our existing available resources, together with interest income, should be sufficient to fund our operating expenses and capital requirements as currently planned through the next seventeen months. However, our cash requirements may vary materially from those now planned because of:

- results of research and development;
- results of product testing;
- developments in large-scale production;

- relationships with strategic partners;
- changes in the focus and direction of our research and development programs;
- competitive and technological factors;
- developments in the regulatory process; and/or
- other factors which are difficult to predict.

If we are the recipient of awards from government agencies to fund research and development, the actual timing and receipt of funding for those awards may depend on periodically approved government budgets and appropriations, which are outside our control. Any change in governmental needs and priorities or any delay in legislative or other governmental action with respect to budgets and appropriations could materially and adversely effect us.

YEAR 2000 COMPLIANCE. The "Year 2000" issue affects computer and information technology systems, as well as non-information technology systems which include embedded technology such as micro-processors and micro-controllers (or micro-chips) with date-sensitive programs that may not properly recognize the year 2000. Systems that do not properly recognize this information could generate inaccurate data or cause a system to fail, resulting in business interruption. Currently, we are developing a plan and taking steps to provide measured assurances that our computer and information technology systems and non-information technology systems (including embedded systems such as heating, ventilation and air conditioning systems and other analytical instruments and equipment) are or will be Year 2000 compliant. We are also taking steps to confirm that those third parties with material relationships with us are or will be Year 2000 compliant. However, we cannot assure you that all material systems will be Year 2000 compliant in a timely manner, if at all.

RAPID TECHNOLOGICAL CHANGE. We are engaged in pharmaceutical fields characterized by extensive research efforts, rapidly evolving technology and intense competition from numerous organizations, including pharmaceutical companies, biotechnology firms, academic institutions and others. New developments are expected to continue at a rapid pace in both industry and academia. Research and discoveries by others may render any of our programs or potential products obsolete or uneconomical. In order to compete successfully, we will need to complete development and obtain regulatory approval of products that keep pace with technological developments on a timely basis. Any failure by us to anticipate or respond adequately to techno logical developments could have a material adverse effect on our business, financial condition and results of operations.

PATENT, LICENSE AND PROPRIETARY RIGHTS UNCERTAINTIES. Our success will depend in part on our ability to:

- obtain and maintain United States and foreign patent protection for our products;
- preserve our trade secrets and proprietary rights; and
- operate without infringing on the proprietary rights of third parties or having third parties circumvent our rights.

Because of the length of time and expense associated with bringing new products through development and regulatory approval to the marketplace, the healthcare industry has traditionally placed considerable importance on obtaining patent and trade secret protection for significant new technologies, products and processes. We cannot assure you that any patents will issue from any of the patent applications owned by or licensed to us. Further, we cannot assure you that, even if patents were to issue, they will provide us with significant protection against competitive products or otherwise be commercially valuable. In addition, patent law relating to certain of our fields of interest, particularly as to the scope of claims in issued patents, is still

developing and it is unclear how this uncertainty will affect our patent rights. Litigation, which could be costly and time consuming, may be necessary to enforce patents issued to us and/or to determine the scope and validity of others' proprietary rights, in either case in judicial or administrative proceedings. Our competitive position also depends on unpatented trade secrets which generally are difficult to protect. We cannot assure you that others will not independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets, that our trade secrets will not be disclosed or that we can effectively protect our rights to unpatented trade secrets. As the biotechnology industry expands and more patents are issued, the risk increases that our potential products may give rise to lawsuits that they infringe the patents of others. Any such lawsuits would be costly and time consuming to us.

We are aware of broad patents owned by third parties relating to the manufacture, use and sale of recombinant humanized antibodies, recombinant humanized single chain antibodies and genetically engineered animals. We have received notice from certain of these parties regarding the existence of certain of these patents which the owners claim may be relevant to the development and commercialization of certain of our proposed products. With respect to certain of these patents, which we believe are relevant for the expeditious development and commercialization of certain of our products as currently contemplated, we have acquired licenses. With regard to certain other patents, we have either determined in our judgment that our products do not infringe the patents or have identified and are testing various approaches which we believe should not infringe the patents and which should permit commercialization of our products. However, the owner of these patents might still seek to enforce the patent against our so-modified commercial products or against the development activities related to the non-modified products. If it becomes necessary, we may not be able to obtain a license on commercially reasonable terms. If we do not obtain necessary licenses, we could encounter delays in product market introductions while we attempt to design around such patent or could find that the development, manufacture or sale of products requiring such a license could be foreclosed. Further, we cannot assure you that owners of patents that we do not believe are relevant to our product development and commercialization will not seek to enforce their patents against us. Such action could result in litigation which would be costly and time consuming. We cannot assure you that we would be successful in such litigations. We are currently unaware of any threatened action.

Certain licenses by which we obtained rights in and to certain technologies require us to diligently commercialize or attempt to commercialize those technologies. We may not meet such requirements, and failing to do so for a particular technology could result in losing our rights to that technology.

Currently, we have not sought to register our potential trademarks, and we cannot assure you that we will be able to obtain registration for those trademarks.

NO ASSURANCE OF FOOD & DRUG ADMINISTRATION APPROVAL; GOVERNMENT REGULATION. The preclinical and clinical testing, manufacturing and marketing of our products are subject to extensive regulation by numerous government authorities in the United States and other countries, including the FDA. Among other requirements, FDA approval of our products, including a review of the manufacturing processes and facilities used to produce such products, will be required before our products may be marketed in the United States. Similarly, marketing approval by a foreign governmental authority is typically required before products may be marketed in a particular foreign country. In order to obtain FDA approval of a product, we must, among other things, demonstrate to the satisfaction of the FDA that the product is safe and effective for its intended uses and that we are capable of manufacturing the product with procedures that conform to the FDA's then current good manufacturing practice regulations. The process of seeking FDA approvals can be costly, time consuming and subject to unanticipated and significant delays. Approvals may not be granted on a timely basis, or at all. Any delay in obtaining or any failure to obtain approvals would adversely affect our ability to introduce and market products and to generate product revenue.

Our research and development processes involve the controlled use of hazardous materials. We are subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposing of such materials and certain waste products. In the event of such an accident, we could be held liable for any damages that result and any resulting liability could exceed our resources. We may be required to incur significant costs to comply with the environmental laws and regulations in the future. Our business, financial condition and results of operations may be materially adversely affected by current or future environmental laws or regulations.

NO CURRENTLY APPROVED XENOTRANSPLANTATION-BASED PRODUCTS. Building upon our core technologies, we are developing non-human organ and cell products designed for transplantation into humans. Our approach involves xenotransplantation - the transplantation or use of live organs, tissue and cells from one species into another. Xenotransplantation technology is an emerging technology with, as yet, limited clinical applications. We cannot assure you that our organ, tissue and cell transplantation technology will result in the development of any therapeutic products. Although several companies are focusing on xenotransplantation-based products, this area represents a novel therapeutic approach that has not yet been subject to extensive clinical testing.

Xenotransplantation also poses a risk that viruses or other animal pathogens may be unintentionally transmitted not only to a human patient recipient, but other human beings. Recent scientific publications by others demonstrate, under laboratory conditions, that porcine endogenous retro viruses have the potential to infect human cells. While these viruses has not been shown to cause any disease in pigs or humans, it is not known what effect, if any, such viruses may have on humans. Our porcine organ, tissue and cell product development programs would be negatively impacted by the detection of these viruses in porcine cells in our preclinical or clinical development program or at other companies focusing in this area.

No xenotransplantation-based therapeutic product has been approved for sale by the FDA. The FDA has not yet established definitive regulatory guidelines for xenotransplantation but has proposed interim guidelines in an attempt to reduce the risk of contamination of transplanted organ and cellular products with infectious agents. Definitive guidelines may not be issued. We may not be able to comply with any final definitive guidelines that may be issued. Furthermore, our products may not be approved by the FDA or regulatory authorities in other countries in a timely manner, if at all. Xenotransplantation-based products, including products developed by us, may not be accepted by the medical community or third-party payors. If accepted, the degree of acceptance may limit the size of the market for our products.

SUBSTANTIAL COMPETITION. The pharmaceutical and biotechnology industries are intensely competitive. Many companies, including major pharmaceutical and chemical companies as well as specialized biotechnology companies, are engaged in activities similar to our activities. Certain of these companies may have:

- substantially greater financial and other resources;
- larger research and development staffs; and/or
- more extensive marketing and manufacturing organizations.

Many of these companies have significant experience in preclinical testing, human clinical trials, product manufacturing, marketing and distribution and other regulatory approval procedures. In addition, colleges, universities, governmental agencies and other public and private research organizations conduct research and may market commercial products on their own or through joint ventures. These institutions are becoming more active in seeking patent protection and licensing arrangements to collect royalties for use of technology

that they have developed. These institutions also compete with us in recruiting and retaining highly qualified scientific personnel.

In particular, each of Avant Immunotherapeutics, Inc., Chiron Corporation, Abbott Laboratories, Gliatech Inc. and Biocryst Pharmaceuticals has publicly announced intentions to develop complement inhibitors to treat diseases related to trauma, inflammation or neurodegenerative indications. We are aware that SmithKline Beecham PLC, Merck & Co., Inc. and CytoMed Inc. are attempting to develop similar therapies. In addition, each of Bayer A.G., Immunex Corporation, Pharmacia & Upjohn and Rhone-Poulenc Rorer, Inc. sells a product which is used to reduce surgical bleeding during CPB. We are also aware of announced and ongoing clinical trials of certain companies, including Autoimmune, Inc., Immune Response Corporation, Neurocrine Biosciences, Inc. and Anergen, Inc., employing T-cell specific tolerance technologies and addressing patients with multiple sclerosis or diabetes mellitus. Baxter Healthcare Corporation and Novartis, Inc., in collaboration with Biotransplant Inc., have publicly announced intentions to commercially develop xenograft organs. We are aware that Diacrin Inc. and Genzyme Tissue Repair, Inc. are also working in this field. These companies may succeed in developing products which are more effective or less costly than our products. These companies may also be more successful in producing and marketing their products. Competition may increase further as a result of potential advances in the commercial applicability of biotechnology and greater availability of capital for investment in these fields.

DEPENDENCE ON QUALIFIED PERSONNEL. We are highly dependent upon the efforts of our senior management and scientific personnel and, in particular, Dr. Leonard Bell, our President and Chief Executive Officer. The loss of the services of one or more of these individuals could materially and adversely affect our ability to achieve our development objectives. Dr. Bell has an employment agreement which expires on April 1, 2000. We have a $2,000,000 key man life insurance policy on the life of Dr. Bell, naming us as the beneficiary. Because of the specialized scientific nature of our business, we are also highly dependent upon our ability to continue to attract and retain qualified scientific and technical personnel. There is intense competition for qualified scientific and technical personnel. We may not be able to continue to attract and retain the qualified personnel necessary for developing our business. Loss of the services of, or failure to recruit, key scientific and technical personnel would be significantly detrimental to our product development programs.

All of our scientific consultants are employed on a full-time basis by academic or research institutions or may have their own professional practices or firms on a full-time basis. Accordingly, these consultants will be able to devote only a limited portion of their time to us. In addition, in certain circumstances, inventions or processes discovered by them may not become our property but may be the property of their full-time employers or of other companies and institutions for which they now consult. We may not be able to negotiate license rights to the results of collaborations on commercially reasonable terms, if at all.

DEPENDENCE ON OUTSIDE PARTIES AND COLLABORATORS. For the research, development, manufacture and commercialization of certain of our products, we contemplate entering into various arrangements with corporate partners, licensors, licensees, outside researchers, consultants and others. Therefore, our success may depend in part upon the efforts of outside parties. We cannot assure you that we will be able to negotiate acceptable collaborative arrangements to develop or commercialize our products, that arrangements or other collaborations entered into, if any, will be successful, or that current or potential collaborators will not pursue treatments for other diseases or seek alternative means of developing treatments for the diseases targeted by programs with us.

For example, in January 1999, we entered into a collaboration agreement with Proctor & Gamble Pharmaceuticals to develop and commercialize 5G1.1-SC. However, we cannot assure you that we, together

with Proctor & Gamble, will successfully develop or commercialize 5G1.1-SC. Moreover, we cannot assure you that we will receive all of the benefits available to us under the collaboration agreement. Further, we cannot control the amount and timing of funds or other resources that Proctor & Gamble will devote to this collaboration.

If any of our collaborators breaches or terminates its agreement with us or otherwise fails to conduct its collaborative activities in a timely manner, the development or commercialization of the product candidate or the research program which is the subject of the agreement may be delayed. We may be required to undertake unforeseen additional responsibilities or devote additional resources to development or commer cialization or terminate the development or commercialization. This could have a material adverse effect on our prospects, financial condition, intellectual property position and results of operations.

Although we began developing our Unigraft products in collaboration with United States Surgical Corporation, we are currently in the process of reacquiring their rights to all aspects of the xenotransplantation program from Tyco International Ltd., which acquired United States Surgical Corporation. We believe that, despite the termination of our collaboration with United States Surgical Corporation, we will be able to continue to develop xenotransplantation products, although we cannot be certain.

LIMITED MANUFACTURING, MARKETING, SALES, CLINICAL TESTING AND REGULATORY COMPLIANCE CAPABILITY. We have not invested in the development of commercial manufacturing, marketing, distribution or sales capabilities. Moreover, we have insufficient capacity to manufacture more than one product candidate at a time or to manufacture its product candidates for later stage clinical development or commercialization. If we are unable to develop or contract for additional manufacturing capabilities on acceptable terms, our ability to conduct human clinical testing will be materially adversely affected, resulting in delays in the submission of products for regulatory approval and in the initiation of new development programs. This could have a material adverse effect on our competitive position and our prospects for achieving profitability. In addition, as our product development efforts progress, we may need to hire additional personnel skilled in clinical testing, regulatory compliance and, if we develop products with commercial potential, marketing and sales. We cannot assure you that we will be able to acquire, or establish third-party relationships to provide, any or all of these resources.

UNCERTAINTY OF AVAILABILITY OF HEALTHCARE REIMBURSEMENT. Our ability to commercialize our products successfully may depend in part on the extent to which reimbursement for the cost of such products and related treatments will be available from government health administration authorities, private health insurers and other organizations. Third-party payors are attempting to control costs by limiting coverage of products and treatments and the level of reimbursement for medical products and services. Significant uncertainty exists as to the reimbursement status of newly approved healthcare products. If we succeed in bringing one or more products to market, these products may not be considered cost-effective, reimbursement may not be available, or, if available, the payor's reimbursement policies may materially adversely affect our ability to sell our products on a profitable basis.

PRODUCT LIABILITY; POTENTIAL LIABILITY FOR HUMAN CLINICAL TRIALS. Our business exposes us to potential product liability risks which are inherent in the testing, manufacturing, marketing and sale of human therapeutic products. We cannot assure you that we will be able to avoid significant product liability exposure. With respect to our UniGraft program, little is known about the potential long-term health risks of transplanting non- human tissue into humans. In addition to product liability risks associated with sales of products, we may be liable to the claims of individuals who participate in human clinical trials of our products. While we have obtained and will seek waivers of liability from all persons who participated or may

in the future participate in human clinical trials conducted by or on our behalf, we cannot assure you that waivers will be effective to protect us from liability or the costs of product liability litigation. We currently have product liability insurance to cover certain liabilities relating to the conduct of human clinical trials. We may not be able to maintain our insurance on acceptable terms, and our insurance may not provide adequate protection against potential liabilities. Inadequate insurance may affect our ability to develop and commercialize our products. Furthermore, a product liability lawsuit or recall could have a material adverse effect on our business, financial condition and results of operations.

VOLATILITY OF SHARE PRICE. The market prices for securities of biopharmaceutical companies have been volatile. Factors such as announcements of technological innovations or new commercial products by us or our competitors, government regulation, patent or proprietary rights developments, public concern as to the safety or other implications of biopharmaceutical products, results of preclinical or clinical trials, positive or negative developments related to our collaborators and market conditions in general may have a significant impact on the market price of our common stock.

DILUTIVE EFFECT OF STOCK ISSUANCES, GRANTS, OPTIONS AND WARRANTS. As of December 31, 1998, we have granted options to purchase an aggregate of approximately 1,965,000 shares of our common stock under certain stock option plans. Warrants to purchase an aggregate of 220,000 shares of our common stock are also outstanding under previous financing arrangements and other transactions. Many of these options have exercise prices below the current market price of our common stock. In addition, we may issue additional stock, warrants and/or options to raise capital in the future. We regularly examine opportunities to expand our technology base through means such as licenses, joint ventures and acquisition of assets or ongoing businesses and may issue securities in connection with these transactions. We may also issue additional securities in connection with our stock option plans. During the terms of these options and warrants, the holders are given the opportunity to profit from a rise in the market price of our common stock. The exercise of these options and warrants may have an adverse effect on the market value of our common stock. The existence of these options and warrants may adversely affect the terms on which we can obtain additional equity financing. If the exercise prices of these options and warrants are less than the net tangible book value of our common stock at the time these options and warrants are exercised, our stockholders will experience an immediate dilution in the net tangible book value of their investment.

POSSIBLE ADVERSE IMPACT ON HOLDERS OF COMMON STOCK; ANTI-TAKEOVER PROVISIONS; RIGHTS PLAN. The Board of Directors may issue one or more series of preferred stock, without any action on the part of our stockholders on terms which may adversely affect the rights of holders of common stock. Issuance of preferred stock may dilute the voting power of holders of common stock (such as by issuing preferred stock with super voting rights) and may render more difficult the removal of current management, even if removal may be in the stockholders' best interests. Further, the issuance of preferred stock may be used as an "anti-takeover" device without further action on the part of the stockholders. On February 14, 1997, the Board of Directors declared a dividend distribution of one preferred stock purchase right for each outstanding share of our common stock. These rights are not exercisable until the date of the earlier to occur of (i) ten business days following the time of a public announcement or notice to us that a person or group of affiliated or associated persons has acquired beneficial ownership of 20% or more of the outstanding shares of our common stock or (ii) ten business days, or a later date as may be determined by the Board of Directors, after the date of the commence ment 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 common stock already owned by that person, constitutes 20% or more of the outstanding shares of common stock. The rights and the rights agreement, as well as certain provisions of Delaware law, are designed to prevent any unsolicited acquisitions of our common stock. These provisions and any issuance of preferred stock could prevent the holders of common stock from realizing a premium on their shares.

OWNERSHIP BY MANAGEMENT AND PRINCIPAL STOCKHOLDERS. On February 1, 1999, our directors and officers and certain principal stockholders and their affiliates beneficially owned (as defined by the Commission) in the aggregate approximately 1,994,918 shares of common stock, representing 16.8% of the outstanding shares of common stock. Accordingly, they have the ability to influence significantly our affairs and matters requiring a stockholder vote, including the election of the directors, the amendment of charter documents, the merger or dissolution of us and the sale of all or substantially all of our assets. The voting power of these holders may also discourage or prevent any proposed takeover of us pursuant to a tender offer.

USE OF PROCEEDS

We will not receive any proceeds from the sale of shares of common stock by the selling stockholders, although we will receive the exercise prices of the stock options.

SELLING STOCKHOLDERS

The following table sets forth certain information with respect to certain selling stockholders as of February 1, 1999. The shares are being registered to permit public secondary trading of the shares, and the selling stockholders may offer the shares for resale from time to time. See "Plan of Distribution."

Name of Selling Stockholder(1)	Number of Shares Beneficially Owned Prior to OFFERING	Number of Shares Being OFFERED(2)	Number of Shares Beneficially Owned After OFFERING	Percent of Shares Beneficially Owned After OFFERING
John H. Fried, Ph.D. (3)	90,636	11,500	79,136	*
Timothy F. Howe (4)	288,154	4,000	284,154	2.5%
Max Link, Ph.D. (5)	25,123	11,500	13,623	*
Joseph A. Madri, Ph.D., M.D. (6)	57,100	4,000	53,100	*
Leonard Marks, Jr., Ph.D. (7)	15,600	11,500	4,100	*
Eileen M. More (8)	521,650	4,000	517,650	4.6%

(1) Unless otherwise indicated, the address of all persons is 25 Science Park, Suite 360, New Haven, Connecticut 06511.

(2) To our knowledge, except as set forth below, the persons named in the table have sole voting and investment power with respect to all shares of common stock shown as beneficially owned by them, subject to community property laws where applicable and the information contained in the footnotes in this table.

(3) Shares Beneficially Owned Prior to Offering include 14,966 shares of common stock that may be acquired on the exercise of options that are exercisable within 60 days of February 1, 1999, and exclude 3,334 shares of obtainable through the exercise of options which are not exercisable within 60 days of February 1, 1999.

(4) Shares Beneficially Owned Prior to Offering include shares of common stock beneficially owned by Collinson Howe Venture Partners, Inc., and include 5,766 shares which may be acquired upon the exercise of options within 60 days of February 1, 1999, and exclude 5,034 shares obtainable through the exercise of options which are not exercisable within 60 days of February 1, 1999. Mr. Howe disclaims beneficial ownership of shares held or beneficially owned by Collinson Howe Venture Partners, Inc.

Collinson Howe Venture Partners, Inc. is a venture capital investment management firm, which is the managing member of Biotechnology Investment Group, L.L.C. As such, this investment firm shares beneficial ownership of 279,400 shares of common stock owned by Biotechnology Investment Group, L.L.C. Mr. Howe, a director of Alexion, is the Vice President and a minority stockholder of this investment firm. As such, he shares investment and voting power over the shares beneficially owned by Collinson Howe Venture Partners, Inc.

(5) Shares Beneficially Owned Prior to Offering include 2,366 shares of common stock that may be acquired on the exercise of options that are exercisable within 60 days of February 1, 1999, and exclude 3,334 shares of common stock obtainable through the exercise of options which are not exercisable within 60 days of February 1, 1999.

(6) Shares Beneficially Owned Prior to Offering include 5,766 shares of common stock that may be acquired on the exercise of options that are exercisable within 60 days of February 1, 1999, and exclude 5,034 shares obtainable through the exercise of options which are not exercisable within 60 days of February 1, 1999.

(7) Shares Beneficially Owned Prior to Offering include 14,966 shares of common stock which may be acquired upon the exercise of options within 60 days of February 1, 1999, and exclude 3,334 shares obtainable through the exercise of options which are not exercisable within 60 days of February 1, 1999.

(8) Shares Beneficially Owned Prior to Offering include 25,766 shares of common stock which may be acquired upon the exercise of options within 60 days of February 1, 1999, and include 484,977 shares owned by Oak Investment V Partners and 10,907 shares owned by Oak Investment V Affiliates, two affiliated limited partnerships, exclude 5,034 shares obtainable through the exercise of options which are not exercisable within 60 days of February 1, 1999. Ms. More is a General Partner of these limited partnerships.

We may supplement this prospectus from time to time to include certain information concerning the security ownership of the selling stockholders and the position, office or other material relationship which a selling stockholder has had within the past three years with us or any of our affiliates; provided, however, that certain unnamed non-affiliates, each of whom may sell up to the lesser of 1,000 shares or one percent of the shares covered by this prospectus, may use this prospectus for reoffers and resales.

PLAN OF DISTRIBUTION

We are registering the shares covered by this prospectus on behalf of the selling stockholders. All costs, expenses and fees in connection with the registration of these shares will be paid by us. Brokerage commissions, if any, attributable to the sale of these shares will be paid by the selling stockholders or their donees or pledgees.

Sales of these shares may be effected from time to time in transactions (which may include block transactions) on the Nasdaq National Market, in negotiated transactions, or a combination of such methods of sale, at fixed prices which may be changed, at market prices prevailing at the time of sale, or at negotiated or other prices. The selling stockholders may also sell these shares pursuant to Rule 144 promulgated under the Securities Act of 1933, as amended, or may pledge shares as collateral for margin accounts and such shares could be resold pursuant to the terms of such accounts. Pursuant to this prospectus, the selling stockholders may also donate a certain DE MINIMUS number (as allowed by the Securities and Exchange Commission) of their shares of common stock, and such shares could be resold pursuant to rules set forth by the Commission. The selling stockholders have advised us that they have not entered into any agreements, understandings or arrangements with any underwriters or broker-dealers regarding the sale of their securities. The selling stockholders may effect such transactions by selling common stock directly to purchasers or to or through broker-dealers which may act as agents or principals. These broker-dealers may receive compensation in the form of discounts, concessions or commissions from each selling stockholder and/or the purchasers of the shares for whom the broker-dealers may act as agents or to whom they sell as principal, or both (which compensation as to a particular broker-dealer might be in excess of customary commissions). The selling stockholders and any broker-dealers that act in connection with the sale of the shares might be deemed to be "underwriters" within the meaning of Section 2(11) of the Securities Act and any commission received by them and any profit on the resale of the shares of common stock as principal might be deemed to be underwriting discounts and commissions under the Securities Act. The selling stockholders may agree to indemnify any agent, dealer or broker-dealer that participates in transactions involving sales of the shares against certain liabilities, including liabilities arising under the Securities Act. Liabilities under the federal securities laws cannot be waived.

Because the selling stockholders may be deemed to be "underwriters" within the meaning of Section 2(11) of the Securities Act, the selling stockholders will be subject to prospectus delivery requirements under

the Securities Act. Furthermore, in the event of a "distribution" of the shares, the selling stockholder, any selling broker or dealer and any "affiliated purchasers" may be subject to Regulation M under the Exchange Act. Such regulation would prohibit, with certain exceptions, any such person from bidding for or purchasing any security which is the subject of the distribution until his, her or its participation in that distribution is completed. In addition, Regulation M prohibits any "stabilizing bid" or "stabilizing purchase" for the purpose of pegging, fixing or stabilizing the price of common stock in connection with this offering.

LEGAL MATTERS

Legal matters relating to the common stock have been passed upon for us by Fulbright & Jaworski L.L.P., New York, New York.

EXPERTS

Our audited 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 reports.

NO PERSON (INCLUDING ANY SALESMAN OR BROKER) IS AUTHORIZED TO PROVIDE ORAL OR WRITTEN INFORMATION ABOUT THIS OFFERING NOT CONTAINED IN THIS PROSPECTUS. YOU SHOULD NOT ASSUME THAT THE INFORMATION CONTAINED IN THIS PROSPECTUS IS ACCURATE AS OF ANY DATE OTHER THAN THE DATE INDICATED BELOW.

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200,000 Shares

ALEXION PHARMACEUTICALS, INC.

COMMON STOCK

PROSPECTUS

FEBRUARY 8, 1999

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

ITEM 3. INCORPORATION OF DOCUMENTS BY REFERENCE.

The information in the following documents which we have filed with the Commission (File No. 0- 27756) pursuant to the Exchange Act is incorporated by reference in this Registration Statement:

(i) Our Annual Report on Form 10-K for the fiscal year ended July 31, 1998;

(ii) Our Quarterly Report on Form 10-Q for the quarter ended October 31, 1998;

(iii) Our Current Reports on Form 8-K, filed on October 9, 1998, December 31, 1998 and January 29, 1999; and

(iv) Our Registration Statement on Form 8-A, dated February 12, 1996.

All documents and reports subsequently filed by us pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this Registration Statement and prior to the termination of this offering is incorporated by reference into this Registration Statement and will be a part of this Registration Statement from the date of the filing of those documents or reports. The information relating to us in this Registration Statement should be read 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 Registration Statement may modify or replace statements contained in the documents incorporated by reference.

ITEM 4. DESCRIPTION OF SECURITIES.

Not applicable.

ITEM 5. INTEREST OF NAMED EXPERTS AND COUNSEL.

Not applicable.

ITEM 6. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

Section 145 of the General Corporation Law of the State of Delaware permits indemnification of directors, officers and employees of a corporation under certain conditions and subject to certain limitations. Our Certificate of Incorporation provides that we shall, to the fullest extent permitted by Section 145, indemnify any and all persons whom it shall have power to indemnify under said Section. In addition, we have entered into indemnity agreements with our directors and officers providing for the maximum indemnification allowed by Section 145.

ITEM 7. EXEMPTION FROM REGISTRATION CLAIMED.

Not applicable.

ITEM 8. EXHIBITS.

Exhibit No.	Description
4.1	Alexion Pharmaceuticals, Inc. 1992 Stock Option Plan For Outside Directors
4.2	Form of Option Agreement
5	Opinion of Fulbright & Jaworski L.L.P.
23.1	Consent of Arthur Andersen LLP
23.2	Consent of Fulbright & Jaworski L.L.P. (included in Exhibit 5)
24	Power of Attorney (included on signature page)

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;

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

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

(c) The undersigned registrant hereby undertakes 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.

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

(e) The undersigned registrant hereby undertakes that:

(1) For purposes of determining any 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.

(2) For the purposes of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus 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.

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 City of New Haven, State of Connecticut on February 8, 1999.

ALEXION PHARMACEUTICALS, INC.

By: /s/ Leonard Bell

Leonard Bell, M.D.
President, Chief Executive Officer,
Secretary and Treasurer

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each individual whose signature appears below constitutes and appoints LEONARD BELL, M.D. and DAVID W. KEISER, or either of them, his true and lawful attorney-in-fact and agent 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) to this Registration Statement and to file the same with all exhibits thereto and all documents in connection therewith, with the Securities and Exchange Commission, granting said attorney-in-fact and agent 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 and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent or any 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.

/s/ LEONARD BELL - ---------- Leonard Bell, M.D.	President, Chief Executive Officer, Secretary, Treasurer and Director (principal executive officer)	February 8, 1999
/s/ DAVID W. KEISER - ---------- David W. Keiser	Executive Vice President and Chief Operating Officer (principal financial officer)	February 8, 1999
/s/ BARRY P. LUKE - ---------- Barry P. Luke	Vice President of Finance and Administration (principal accounting officer)	February 8, 1999
/s/ JOHN H. FRIED - ---------- John H. Fried, Ph.D.	Chairman of the Board of Directors	February 8, 1999
/s/ TIMOTHY F. HOWE - ---------- Timothy F. Howe	Director	February 8, 1999
/s/ MAX LINK - ---------- Max Link, Ph.D.	Director	February 8, 1999
/s/ JOSEPH A. MADRI - ---------- Joseph A. Madri, Ph.D., M.D.	Director	February 8, 1999
/s/ LEONARD MARKS - ---------- Leonard Marks, Jr., Ph.D.	Director	February 8, 1999
/S/ EILEEN M. MORE - ---------- Eileen M. More	Director	February 8, 1999

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Exhibit 4.1

ALEXION PHARMACEUTICALS, INC.
1992 STOCK OPTION PLAN FOR OUTSIDE DIRECTORS

I PURPOSE.

The purpose of this 1992 Stock Option Plan for Outside Directors (the "Plan") of Alexion Pharmaceuticals, Inc. (the "Corporation") is to enable the Corporation to compensate eligible directors of the Corporation and to encourage the highest level of performance by providing such persons with a proprietary interest in the Corporation's success and progress by granting them shares of the Corporation's Common Stock, par value $.0001 per share ("Common Stock").

II ADMINISTRATION OF THE PLAN

The Plan shall be administered by a committee (the "Committee") of the Board of Directors of the Corporation (the "Board"), which shall consist of one or more members of the Board, appointed by the Board, who are outside directors (as defined below) or by the Board. The interpretation and construction by the Committee of any provisions of the Plan or of any other matters related to the Plan shall be final. The Committee may from time to time adopt such rules and regulations for carrying out the Plan as it may deem advisable. No member of the Board or the Committee shall be liable for any action or determination made in good faith with respect to the Plan. The Plan shall be interpreted and implemented such that the eligible outside directors will not fail, by reason of the Plan or its implementation, to be "disinterested persons" within the meaning of Rule 16b-3 of the Securities Exchange Act of 1934 (the "Exchange Act"), as such Rule and such Act may be amended.

III ELIGIBILITY AND ISSUANCES.

A. ELIGIBILITY. Directors of the Corporation who (i) are neither officers nor employees nor consultants of the Corporation or any of its subsidiaries (other than the Chairman of the Board of Directors of the Corporation who shall be eligible) and (ii) are not affiliated with any person referred to in (i) above ("outside directors") shall be eligible to receive options to purchase Common Stock under the Plan.

B. ISSUANCES

(1) Except as set forth in Section 3(b)(ii) below, each outside director shall be issued an option to purchase 7,500 shares of the Corporation's Common Stock (the "Initial Option") on the date of his initial election or appointment to the Board of Directors (the "Initial Grant Date") on the following terms:

(a) The option exercise price per share of Common Stock shall be the Fair Market Value (as defined below) of the Common Stock covered by such Initial Option on the Initial Grant Date.

(b) Except as provided herein, the term of an Initial Option shall be for a period of ten (10) years from the Initial Grant Date.

(2) In the case of Drs. John A. Fried, Max Link and Leonard Marks, Jr., outside directors who were elected as directors of the Corporation in April 1992, Initial Options to purchase 7,500 (after giving effect to a 1 for 4 reverse stock split effected on November 7, 1994 and a 1 for 2.5 reverse stock split effected on January 5, 1996) shares of the Corporation's Common Stock were granted under the Plan on August 27, 1992, the date of the Plan's adoption by the Board.

(3) In addition, each outside director shall, on the date of each annual meeting of stockholders at which he is reelected as a director (the "Additional Grant Date"), if he is still an outside director on such date and has attended, either in person or by telephone, at least seventy-five percent (75%) of the meetings of the Board of Directors that were held while he was a director since the prior annual meeting of stockholders, be granted an option to purchase 2,000 shares of Common Stock (the "Additional Option" and, together with the Initial Option, an "Option") on the following terms:

(a) The option exercise price per share of Common Stock shall be the Fair Market Value (as defined below) of the Common Stock covered by such Additional Option on the Additional Grant Date.

(b) Except as provided herein, the term of an Additional Option shall be for a period of ten (10) years from the Additional Grant Date.

(4) "Fair Market Value" shall mean, for each Initial Grant Date or Additional Grant Date (collectively, a "Grant Date"), (A) if the Common Stock is listed or admitted to trading on the New York Stock Exchange (the "NYSE") or the American Stock Exchange (the "ASE"), the last reported sale price of the Common Stock on such date or, if no sale takes place on such date, the closing asked prices of the Common Stock on such exchange as of such date, in each case as officially reported on the NYSE or the ASE, or (B) if no shares of Common Stock are then listed or admitted to trading on the NYSE or the ASE, the last reported sales price of the Common Stock on such date on the NASDAQ National Market System ("NASDAQ") or, if no shares of Common Stock are then quoted on NASDAQ, the average of the closing bid and the highest asked prices of the Common Stock on such date on NASDAQ, or, if no shares of Common Stock are then quoted on NASDAQ, the average of the highest bid and the lowest asked prices of the Common Stock on such date as reported on the over-the-counter system. If no closing bid and lowest asked prices thereof are then so quoted or published in the over-the-counter market, "Fair Market Value" shall mean the fair value per share of Common Stock (assuming for the purposes of this calculation the economic equivalence of all shares of classes of capital stock), as determined on a fully diluted basis in good faith by the Board, as of a date which is 15 days preceding the Grant Date; PROVIDED, HOWEVER, that the Fair Market Value of the Common Stock for purposes of Options granted prior to the closing of the Corporation's initial private placement of Common Stock or initial public offering, whichever occurs earliest, shall be the price per share of the Common Stock in such private placement or public offering.

(5) Options granted hereunder shall not be "incentive stock options" within the meaning of Section 422A of the Internal Revenue Code of 1986, as amended.

IV REGULATORY COMPLIANCE AND LISTING.

The issuance or delivery of any Option may be postponed by the Corporation, and an Option shall not be exercisable, for such period as may be required to comply with the Federal securities laws, state "blue sky" laws, any applicable listing requirements of any applicable securities exchange and any other law or regulation applicable to the issuance, delivery or exercise of such Options and the Corporation shall not be obligated to issue or deliver any Options or shares of Common Stock if the issuance or delivery of such Options or shares would constitute a violation of any law or any regulation of any governmental authority or applicable securities exchange.

V RESTRICTIONS ON EXERCISABILITY.

A. Except as provided in Section 5(b) below, each Option granted under the Plan may be exercisable as to one-third of the total number of shares issuable under such Option on each of the three successive anniversaries of the Grant Date of such Option.

B. If any event constituting a "Change in Control of the Corporation" shall occur, all Options granted under the Plan, which are outstanding at the time a Change of Control of the Corporation shall occur, shall immediately become exercisable. A "Change in Control of the Corporation" shall be deemed to occur if (i) there shall be consummated (x) any consolidation or merger of the Corporation in which the Corporation is not the continuing or surviving corporation or pursuant to which shares of the Corporation's Common Stock would be converted into cash, securities or other property, other than a merger of the Corporation in which the holders of the Corporation's Common Stock immediately prior to the merger have the same proportionate ownership of common stock of the surviving corporation immediately after the merger, or (y) any sale, lease, exchange or other transfer (in one transaction or a series of related transactions) of all, or substantially all, of the assets of the Corporation, or (ii) the stockholders of the Corporation shall approve any plan or proposal for liquidation or dissolution of the Corporation, or (iii) any person (as such term is used in Section 13(d) and 14(d)(2) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")), shall become the beneficial owner (within the meaning of Rule 13d-3 under the Exchange Act) of 40% or more of the Corporation's outstanding Common Stock other than pursuant to a plan or arrangement entered into by such person and the Corporation, or (iv) during any period of two consecutive years, individuals who at the beginning of such period constitute the entire Board shall cease for any reason to constitute a majority thereof unless the election, or the nomination for election by the Corporation's stockholders, of each new director was approved by a vote of at least two-thirds of the directors then still in office who were directors at the beginning of the period.

VI CESSATION AS DIRECTOR.

In the event that the holder of an Option granted pursuant to the Plan shall cease to be a director of the Corporation for any reason, such holder may exercise any portion of such Option that is exercisable by him at the time he ceases to be a director of the Corporation, but only to the extent such Option is exercisable as of such date, within six months after the date he ceases to be a director of the Corporation.

VII DEATH.

In the event that a holder of an Option granted pursuant to the Plan shall die, his beneficiary may exercise any portion of such Option that was exercisable by the deceased Optionee at the time of his death, but only to the extent such Option is exercisable as of such date, within twelve months after the date of his death.

VIII STOCK SPLITS, MERGERS, ETC.

In the event of any stock split, stock dividend or similar transaction which increases or decreases the number of outstanding shares of Common Stock, appropriate adjustment shall be made by the Board, whose determination shall be final, to the number and option exercise price per share of Common Stock which may be purchased under any outstanding Options. In the case of a merger, consolidation or similar transaction which results in a replacement of the Corporation's Common Stock and stock of another corporation but does not constitute a Change in Control of the Corporation, the Corporation will make a reasonable effort, but shall not be required, to replace any outstanding Options granted under the Plan with comparable options to purchase the stock of such other corporation, or will provide for immediate maturity of all outstanding Options, with all Options not being exercised within the time period specified by the Board of Directors being terminated.

IX TRANSFERABILITY.

Options are not assignable or transferable, except by will or the laws of descent and distribution to the extent set forth in Section 7 and during a director's lifetime may be exercised only by him.

X EXERCISE OF OPTIONS.

An optionholder electing to exercise an Option shall give written notice to the Corporation of such election and of the number of shares of Common Stock that he has elected to acquire. An optionholder shall have no rights of a stockholder with respect to shares of Common Stock covered by his Option until after the date of issuance of a stock certificate to him upon partial or complete exercise of his option.

XI PAYMENT.

The Option exercise price shall be payable in cash, check or in shares of Common Stock upon the exercise of the Option. If the shares of Common Stock are tendered as payment of the Option exercise price, the value of such shares shall be the Fair Market Value as of the date of exercise. If such tender would result in the issuance of fractional shares of Common Stock, the Corporation shall instead return the difference in cash or by check to the employee.

XII TERM OF PLAN.

The Plan shall terminate on August 26, 2002, and no Option shall be granted pursuant to the Plan after that date.

XIII OBLIGATION TO EXERCISE OPTION.

The granting of an Option shall impose no obligation on the director to exercise such Option.

XIV CONTINUANCE AS DIRECTOR.

Nothing in the Plan shall be deemed to create any obligation on the part of the Board to nominate any director for reelection by the Corporation's stockholders.

XV AMENDMENT OF THE PLAN.

The Board may at any time and from time to time alter, amend, suspend or terminate the Plan in whole or in part, provided, however, that (i) any amendment which must be approved by the stockholders of the Company in order to maintain the continued qualification of the Plan under Rule 16b-3 under the Exchange Act or any successor provision, or the approval of which is otherwise required by law, shall not be effective unless and until such stockholder approval has been obtained in compliance with such rule or law and (ii) provisions of the Plan which govern the amount, price or timing of the award of an Option shall not be amended more than once every six months, other than to comply with changes in the Internal Revenue Code of 1986, as amended, the Employee Income Retirement Security Act, or the rules thereunder.

XVI WITHHOLDING OF TAXES.

We shall have the right, prior to the delivery of any certificate evidencing shares of Common Stock to be issued pursuant to an Option, to require the exercising outside director to remit to the Company an amount in cash sufficient to satisfy any Federal, state, or local tax withholding requirements.

Exhibit 4.2

ALEXION PHARMACEUTICALS, INC.
STOCK OPTION AGREEMENT

AGREEMENT made as of the ____ day of _____ 1998 by and between Alexion Pharmaceuticals, Inc., a Delaware corporation (the "Company") and (the "Optionee").

W I T N E S S E T H

WHEREAS, pursuant to the Alexion Pharmaceuticals, Inc. 1992 Stock Option Plan for Outside Directors (the "Plan"), the Company desires to grant to the Optionee and the Optionee desires to accept an option to purchase shares of common stock, $.0001 par value, of the Company (the "Common Stock") upon the terms and conditions set forth in this agreement;

NOW, THEREFORE, the parties hereto agree as follows:

1. GRANT. The Company hereby grants to the Optionee an option to purchase _____ shares of Common Stock, at a purchase price per share of $_____. This option is intended to be treated as an option which does not qualify as an incentive stock option ("NSO") within the meaning of Section 422 of the Internal Revenue Code of 1986.

2. RESTRICTIONS ON EXERCISABILITY. Except as specifically provided otherwise herein, the option will become exercisable in accordance with the following schedule based upon the number of full years of the Optionee's continuous employment or service with the Company or a subsidiary following the Grant Date:

Full Years of Continuous Employment/ Service	Incremental Percentage of Option Exercisable	Cumulative Percentage of Option Exercisable
Less than 1	0%	0%
1	33 1/3%	33 1/3%
2	33 1/3%	66 2/3%
3	33 1/3%	100%

No share of Common Stock may be purchased hereunder unless the Optionee shall have remained in the continuous employ or service of the Company or a subsidiary for one year from the Grant Date. If the Optionee performs services for the Company or a subsidiary in a capacity other than as a director or employee, then, for purposes hereof, those services will be deemed to be continuous until they are terminated, and they will be deemed to be terminated at the time provided therefor in the consulting or other agreement governing the performance of such services or, if there is no such agreement, at the time the Company notifies the Optionee that it no longer contemplates the utilization of such services. Unless sooner terminated, the option will expire if and to the extent it is not exercised within ten years from the Grant Date.

3. EXERCISE. The option may be exercised in whole or in part in accordance with the above schedule by delivering to the Secretary of the Company (a) a written notice specifying the number of shares to be purchased, and (b) payment in full of the exercise price, together with the amount, if any, deemed necessary by the Company to enable it to satisfy any income tax withholding obligations with respect to the exercise (unless other arrangements, acceptable to the Company, are made for the satisfaction of such withholding obligations). The exercise price shall be payable by bank or certified check. The Company may (in its sole and absolute discretion) permit all or part of the exercise price to be paid with previously-owned shares of Common Stock, or in installments (together with interest) evidenced by the Optionee's secured promissory note.

4. RIGHTS AS STOCKHOLDER. No shares of Common Stock shall be sold or delivered hereunder until full payment for such shares has been made

(or, to the extent payable in installments, provided for). The Optionee shall have no rights as a stockholder with respect to any shares covered by the option until a stock certificate for such shares is issued to him or her. Except as otherwise provided herein, no adjustment shall be made for dividends or distributions of other rights for which the record date is prior to the date such stock certificate is issued.

5. NONTRANSFERABILITY. The option is not assignable or transferable except upon the Optionee's death to a beneficiary designated by the Optionee or, if no designated beneficiary shall survive the Optionee, pursuant to the Optionee's will and/or the laws of descent and distribution. During an Optionee's lifetime, the option may be exercised only by the Optionee or the Optionee's guardian or legal representative.

6. TERMINATION OF SERVICE, DISABILITY OR DEATH. If the Optionee ceases to be employed by or to perform services for the Company and any subsidiary for any reason other than death or disability, then, unless sooner terminated under the terms hereof, the option will terminate on the date three months after the date of the Optionee's termination of employment or service. If the Optionee's employment or service is terminated by reason of the Optionee's death or disability (or if the Optionee's employment or service is terminated by reason of his or her disability and the Optionee dies within one year after such termination of employment or service), then, unless sooner terminated under the terns hereof, the option will terminate on the date one year after the date of such termination of employment or service (or one year after the Optionee's later death).

7. SECURITIES RESTRICTIONS. If the shares to be issued upon an exercise of the option are not registered under the Securities Act of 1933, then, as a further condition of the Company's obligation to issue such shares, the Optionee may be required to give a representation in writing that the Optionee is acquiring the shares for his or her own account as an investment and not with a view to, or for sale in connection with, the distribution of such shares, and the certificates representing such shares shall bear a legend to such effect as the company's counsel shall deem necessary or desirable. The option shall in no event be exercisable and shares shall not be issued hereunder if, in the opinion

of counsel to the Company, such exercise and/or issuance would result in a violation of federal or state securities laws.

8. CAPITAL CHANGES, REORGANIZATIONS, ETC.

(a) In case of any post-Grant Date split-up or consolidation of shares or any like capital adjustment, or the payment of a stock dividend which increases or decreases the number of outstanding shares of Common Stock, appropriate adjustment shall be made to the number of shares and the exercise price per share which may still be purchased under this agreement.

(b) Upon a post-Grant Date merger (other than a merger of the Company in which the holders of Common Stock immediately prior to the merger have the same proportionate ownership of common stock in the surviving corporation immediately after the merger), consolidation, sale of property or stock, separation, reorganization (other than a mere reincorporation or the creation of a holding company) or liquidation of the Company, as a result of which the stockholders of the Company receive cash, stock or other property in exchange for or in connection with their shares of Common Stock an ("Exchange Transaction"), the Optionee will be permitted to exercise his or her outstanding option (whether or not otherwise exercisable) and any outstanding options not exercised before the consummation of the Exchange Transaction will thereupon terminate. Notwithstanding the preceding sentence, if, as part of the Exchange Transaction, the shareholders of the Company receive capital stock of another corporation ("Exchange Stock"), and if the Board, in its sole discretion, so directs, then all outstanding options will be converted into options to purchase shares of Exchange Stock. The amount and price of the converted options will be determined by adjusting the amount and price of the options granted hereunder on the same basis as the determination of the number of shares of Exchange Stock the holders of Common Stock will receive in the Exchange Transaction.

(c) In the event of any adjustment in the number of shares covered by any option pursuant to the provisions hereof, any fractional shares resulting from such adjustment will be disregarded and each such option will cover only the number of full shares resulting from the adjustment.

(d) All adjustments under this paragraph 8 shall be made by the Board, and its determination as to what adjustments shall be made, and the extent thereof, shall be final, binding and conclusive.

9. NO EMPLOYMENT RIGHTS. Nothing in this agreement shall give the Optionee any right to continue in the employ or service of the Company or a subsidiary, or interfere in any way with the right of the Company to terminate the employment or service of the Optionee.

10. PROVISIONS OF PLAN. The provisions of the Plan shall govern if an to the extent that there are inconsistencies between those provisions and the provisions hereof. The Optionee acknowledges that he or she has received a copy of the Plan prior to the execution of this agreement.

11. ADMINISTRATION. The committee appointed by the Board to administer the Plan will have full power and authority to interpret and apply the provisions of this agreement, and the decision of said committee as to any matter arising under this agreement shall be binding and conclusive as to all persons.

12. TERMINATION OF GRANT. Prior to the Grant Date, the Board of Directors if, and to the extent necessary, in order to successfully consummate the Company's private placement, may not grant the option, and to that extent, the Optionee will have no further rights hereunder.

13. MISCELLANEOUS.

(a) This agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and permitted assigns.

(b) This agreement shall be governed by and construed in accordance with the laws of the State of Delaware. This agreement constitutes the entire agreement between the parties with respect to the Subject matter hereof and may not be modified except by written instrument executed by the parties.

IN WITNESS WHEREOF, this agreement has been executed as of the date first above written

Alexion Pharmaceuticals, Inc.

By:

Optionee

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

Exhibit 5

February 8, 1999

Alexion Pharmaceuticals, Inc.
25 Science Park
New Haven, Connecticut 06511

Dear Sirs or Madams:

We refer to the Registration Statement on Form S-8 (the "Registration Statement") to be filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "Act"), on behalf of Alexion Pharmaceuticals, Inc. (the "Company"), relating to 200,000 shares of the Company's Common Stock, $.0001 par value per share (the "Shares"), to be issued under the Alexion Pharmaceuticals, Inc. 1992 Stock Option Plan for Outside Directors, as amended (the "Plan").

As counsel for the Company, we have examined such corporate records, other documents, and such questions of law as we have considered necessary or appropriate for the purposes of this opinion and, upon the basis of such examination, advise you that, in our opinion, all necessary corporate proceedings by the Company have been duly taken to authorize the issuance of the Shares pursuant to the Plan and that the Shares being registered pursuant to the Registration Statement, when issued and paid for under the Plan in accordance with the terms of the Plan, will be duly authorized, validly issued, fully paid and non-assessable.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement. This consent is not be construed as an admission that we are a person 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 23.1

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 August 28, 1998 included in Alexion Pharmaceuticals, Inc.'s Form 10-K for the year ended July 31, 1998 and to all references to our Firm included in this registration statement.

/S/ ARTHUR ANDERSEN LLP

ARTHUR ANDERSEN LLP

Hartford, Connecticut
February 3, 1999