

SECURITIES AND EXCHANGE COMMISSION
 WASHINGTON, D.C. 20549

 AMENDMENT NO. 1

TO

FORM S-3

REGISTRATION STATEMENT
 UNDER
 THE SECURITIES ACT OF 1933

ALEXION PHARMACEUTICALS, INC.
 (Exact name of registrant as specified in its charter)

DELAWARE
 (State or other jurisdiction of
 incorporation or organization)

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

25 SCIENCE PARK
 NEW HAVEN, CT 06511
 (203) 776-1790
 (Address, including zip code, and telephone number,
 including area code, of registrant's principal
 executive offices)

LEONARD BELL, M.D.
 ALEXION PHARMACEUTICALS, INC.
 25 SCIENCE PARK
 NEW HAVEN, CT 06511
 (203) 776-1790
 (Name, address, including zip code, and telephone number,
 including area code, of agent for service)

Copies of all communications, including all communications sent to the agent for
 service, should be sent to:

MERRILL M. KRAINES, ESQ.
 FULBRIGHT & JAWORSKI L.L.P.
 666 FIFTH AVENUE
 NEW YORK, NEW YORK 10103

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC: From time
 to time after the effective date of this Registration Statement.

If the only securities being registered on this Form are being offered
 pursuant to dividend or interest reinvestment plane, please check the following
 box:

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

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

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

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

CALCULATION OF REGISTRATION FEE

Title of each class of securities	Amount to be registered	Proposed maximum price per unit	Proposed maximum aggregate offering price	Amount of registration fee
Common Stock, \$.0001 par value per share	1,974,744	\$9.125(1)	\$18,019,539	\$5,461

(1) The price is estimated in accordance with Rule 457(c) under the Securities Act of 1933, as amended, solely for the purpose of calculating the registration fee and is \$9.125, the average of the high and low prices of Alexion Pharmaceuticals, Inc. Common Shares as reported on The Nasdaq Stock Market on June 17, 1997.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(a) OF THE SECURITIES ACT OF 1933 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(a), MAY DETERMINE.

INFORMATION CONTAINED HEREIN IS SUBJECT TO COMPLETION OR AMENDMENT. A REGISTRATION STATEMENT RELATING TO THESE SECURITIES HAS BEEN FILED WITH THE SECURITIES AND EXCHANGE COMMISSION. THESE SECURITIES MAY NOT BE SOLD NOR MAY OFFERS TO BUY BE ACCEPTED PRIOR TO THE TIME THE REGISTRATION STATEMENT BECOMES EFFECTIVE. THIS PROSPECTUS SHALL NOT CONSTITUTE AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY NOR SHALL THERE BE ANY SALE OF THESE SECURITIES IN ANY STATE IN WHICH SUCH OFFER SOLICITATION OR SALE WOULD BE UNLAWFUL PRIOR TO REGISTRATION OF QUALIFICATION UNDER THE SECURITIES LAWS OF ANY SUCH STATE.

SUBJECT TO COMPLETION -- DATED JULY 7, 1997

ALEXION PHARMACEUTICALS, INC.

1,974,744 Shares

Common Stock

This Prospectus relates to the resale of shares of Common Stock, \$.0001 par value per share (the "Common Stock") of Alexion Pharmaceuticals, Inc. (the "Company" or "Alexion") from time to time for the account of the Selling Stockholders (the "Selling Stockholders"). Certain of the Common Stock registered hereby is issuable upon the exercise of warrants (the "Warrants") owned by certain of the Selling Stockholders. The Company will not receive any of the proceeds from the sale of the Common Stock by the Selling Stockholders. The proceeds from the exercise of the Warrants, if any, will be received by the Company. See "Use of Proceeds."

Of the 1,974,744 shares of Common Stock offered hereby, 1,450,000 shares were acquired by Selling Stockholders from the Company in a private placement in June 1997, 126,310 shares were acquired by Selling Stockholders upon the conversion of Series A Preferred Stock which was sold in a private placement in December 1994, 312,498 shares were acquired by Selling Stockholders in a private placement of securities in December 1993 and, as stated above, 85,936 shares may be acquired upon the exercise of the Warrants which were issued by the Company in connection with the December 1993 private placement. The Warrants allow the holders thereof to purchase shares of Common Stock at a price of \$7.50 per share, subject to adjustment in certain circumstances and are exercisable at any time prior to the close of business on December 4, 1997.

The distribution of the Common Stock by the Selling Stockholders may be effected from time to time in one or more transactions (which may involve block transactions) in the over-the-counter market (including the Nasdaq National Market) or any exchange on which the Common Stock may then be listed, in negotiated transactions, through the writing of options on shares (whether such options are listed on an options exchange or otherwise), or a combination of such methods of sale, at market prices prevailing at the time of sale, at prices related to such prevailing market prices or at negotiated prices. The Selling Stockholders may effect such transactions by selling shares to or through broker-dealers, and such broker-dealers may receive compensation in the form of underwriting discounts, concessions or commissions from the Selling Stockholders and/or purchasers of shares for whom they may act as agent (which compensation may be in excess of customary commissions). The Selling Stockholders may also sell the shares of Common Stock pursuant to Rule 144 promulgated under the Securities Act of 1933, as amended (the "Securities Act"), or may pledge shares as collateral for margin accounts and such shares could be resold pursuant to the terms of such accounts. The Selling Stockholders and any broker-dealers that act in connection with the sale of Common Stock might be deemed to be "underwriters" within the meaning of Section 2(11) of the Securities Act and any commissions received by them and any profit on the resale of the shares might be deemed to be underwriting discounts or 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 Common Stock against certain liabilities, including liabilities arising under the Securities Act.

The Company's Common Stock trades on the Nasdaq National Market under the symbol "ALXN." On June 17, 1997, the closing sale price of the Common Stock was \$9.125 per share.

All expenses of the registration of securities covered by this Prospectus are to be borne by the Company, except that the Selling Stockholders will pay underwriting discounts, selling commissions, and fees and the expenses, if any, of counsel or other advisers to the Selling Stockholders.

THE SECURITIES OFFERED HEREBY INVOLVE A HIGH DEGREE OF RISK.

SEE "RISK FACTORS" LOCATED ON PAGE 4.

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION NOR HAS THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this Prospectus is July __, 1997

No person is authorized in connection with the offering made hereby to give any information or to make any representation not contained or incorporated by reference in this Prospectus, and any information or representation not contained or incorporated herein must not be relied upon as having been authorized by the Company or the Selling Stockholders. This Prospectus does not constitute an offer to sell or a solicitation of an offer to buy by any person in any jurisdiction in which it is unlawful for such person to make such offer or solicitation. Neither the delivery of this Prospectus at any time nor any sale made hereunder shall under any circumstance imply that the information contained herein is correct as of any date subsequent to the date hereof.

AVAILABLE INFORMATION

The Company is subject to the informational requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and, in accordance therewith, files reports and other information with the Securities and Exchange Commission (the "Commission"). Proxy statements, reports and other information concerning the Company can be inspected and copied at the public reference facilities maintained by the Commission 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, and copies of such material can be obtained from the Public Reference Section of the Commission at 450 Fifth Street, N.W., Washington, D.C. 20549, and its public reference facilities in New York, New York and Chicago, Illinois, at prescribed rates. 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, Washington, D.C. 20006. This Prospectus does not contain all of the information set forth in the Registration Statement of which this Prospectus is a part and exhibits thereto which the Company has filed with the Commission under the Securities Act of 1933 as amended (the "Securities Act") and to which reference is hereby made. The Commission maintains a World Wide Web site on the Internet at <http://www.sec.gov> that contains reports, proxy and information statements and other information regarding the Company and other registrants that file electronically with the Commission.

This Prospectus constitutes a part of a Registration Statement on Form S-3 (herein, together with all amendments and exhibits, referred to as the "Registration Statement") filed by the Company with the Commission under the Securities Act. This Prospectus does not contain all of the information set forth in the Registration Statement, certain parts of which are omitted in accordance with the rules and regulations of the Commission. For further information with respect to the Company and the Common Stock, reference is hereby made to the Registration Statement. Statements contained herein concerning the provisions of any contract, agreement or other document are not necessarily complete, and in each instance reference is made to the copy of such contract, agreement or other document filed as an exhibit to the Registration Statement or otherwise filed with the Commission. Each such statement is qualified in its entirety by such reference. Copies of the Registration Statement together with exhibits may be inspected at the offices of the Commission as indicated above without charge and copies thereof may be obtained therefrom upon payment of a prescribed fee.

PRIVATE SECURITIES LITIGATION REFORM ACT SAFE HARBOR STATEMENT

This Prospectus (including the documents incorporated by reference herein) contains certain forward-looking statements (as such term is defined in the Private Securities Litigation Reform Act of 1995) and information relating to Alexion that are based on the beliefs of the management of Alexion, as well as assumptions made by and information currently available to the management of Alexion. When used in this Prospectus, the words "estimate," "project," "believe," "anticipate," "intend," "expect" and similar expressions are intended to identify forward-looking statements. Such statements reflect the current views of Alexion with respect to future events and are subject to risks and uncertainties that could cause actual results to differ materially from those contemplated in such forward-looking statements. For a discussion of such risks, see "Risk Factors." Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. Alexion does not undertake any obligation to publicly release any revisions to these forward looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The following documents filed by Alexion Pharmaceuticals, Inc. are incorporated herein by reference and made a part hereof:

1. The Company's Annual Report on Form 10-K for the fiscal year ended July 31, 1996.
2. The Company's Quarterly Report on Form 10-Q for the fiscal quarter ended October 31, 1996.
3. The Company's Quarterly Report on Form 10-Q for the fiscal quarter ended January 31, 1997, as amended by Form 10-Q/A, filed March 17, 1997, and Form 10Q/A2, filed June 19, 1997.
4. The Company's Quarterly Report on Form 10-Q for the fiscal quarter ended April 30, 1997.
5. The description of the Company's Common Stock contained in Item 1 of the Company's Registration Statement on Form 8-A, dated February 12, 1996.
6. The Company's Current Report on Form 8-K, dated February 28, 1997.
7. The Company's Current Report on Form 8-K, filed June 18, 1997.

In addition to the foregoing, all documents subsequently filed by the Company pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934, prior to the filing of a post-effective amendment indicating that all of the securities offered hereunder have been sold or deregistering all securities then remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and to be part hereof from the date of filing of such documents. Any statement contained in a document incorporated by reference in this Registration Statement shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any subsequently filed document that is also incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

This Prospectus incorporates documents by reference which are not presented herein or delivered herewith. These documents are available upon request from: Alexion Pharmaceuticals, Inc., 25 Science Park, New Haven, CT 06511, Attention: David W. Keiser, Executive Vice President and Chief Operating Officer, (203) 776-1790. The Company undertakes to provide without charge to each person to whom this Prospectus is delivered, upon written or oral request of such person, a copy of any or all of the foregoing documents incorporated by reference herein, other than exhibits to such documents, unless such exhibits are specifically incorporated by reference into such documents.

PROSPECTUS SUMMARY

The following summary is qualified in its entirety by the more detailed information and financial data appearing elsewhere or incorporated by reference in this Prospectus. Investors should carefully consider the information set forth under the heading "Risk Factors."

This Prospectus contains forward-looking statements which involve risks and uncertainties. The Company's actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including those set forth under "Risk Factors" and elsewhere in, or incorporated by reference in this Prospectus.

THE COMPANY

Alexion Pharmaceuticals, Inc. ("Alexion" or the "Company") is a biopharmaceutical company engaged in research and the development of proprietary immunoregulatory compounds for the treatment of autoimmune and cardiovascular diseases. The Company is developing C5 complement inhibitors ("C5 Inhibitors") and Apogens ("Apogets"), two classes of potential therapeutic compounds designed to selectively target specific disease-causing segments of the immune system. The Company believes that its 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. Alexion's lead C5 Inhibitor, 5G1.1-SC, is currently being studied in a Phase I/II clinical trial in cardiopulmonary bypass patients. The Company's lead Apogen product candidate, MP4, for the treatment of multiple sclerosis is expected to enter clinical trials in the second half of 1997. The Company will need to undertake and complete further tests in order to confirm its belief regarding the safety and efficacy of its product candidates, and there can be no assurance as to the results of any such tests.

As an outgrowth of its core immunoregulatory technologies, the Company is developing immunoprotected materials for transplantation and gene therapy. In collaboration with United States Surgical Corporation ("US Surgical"), Alexion is developing non-human UniGraft organ products which are designed for transplantation into humans. Further, in a collaboration with Genetic Therapy Inc., a subsidiary of Novartis ("GTI/Novartis"), which was initiated in December 1996, Alexion is developing immunoprotected gene transfer systems which are designed to enable the injectable delivery of therapeutic genes to patients' cells. See "Recent Developments" below.

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 (inflammatory enzymes) and artificial surfaces can locally activate complement proteins in a cascade of enzymatic and biochemical reactions (the "complement cascade") to form inflammatory byproducts leading, for example, in the case of rheumatoid arthritis, to severe joint inflammation and, in the case of cardiovascular disorders such as myocardial infarction (death of heart tissue), to additional significant damage to the heart tissue. 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 directed at the antigens, all of which lead to 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 leading, for example, in the case of multiple sclerosis, to severe and crippling destruction of nerve fibers in the brain.

C5 Inhibitors. Alexion is developing specific and potent biopharmaceutical C5 Inhibitors which are designed to intervene in the complement cascade at what the Company believes 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, Alexion has shown that C5 Inhibitors are effective in substantially preventing inflammation during cardiopulmonary bypass ("CPB"), limiting myocardial infarction during coronary ischemia and reperfusion, enhancing survival in lupus and preserving kidney function in nephritis (kidney inflammation) and reducing the incidence and severity of inflammation and joint damage in rheumatoid arthritis. The Company is developing two C5 Inhibitors, a short acting humanized (compatible for human use) single chain antibody (5G1.1-SC) designed for acute therapeutic settings such as in CPB procedures and in treating myocardial infarctions, and a long acting humanized monoclonal antibody (5G1.1) designed for treating chronic disorders such as nephritis and rheumatoid arthritis. See "Recent Developments" below for a discussion of the regulatory status of 5G1.1-SC. The Company's long acting monoclonal antibody is in process development.

Apogens. The Company's Apogen compounds are based upon discoveries at the National Institutes of Health ("NIH") which are exclusively licensed to Alexion and upon further discoveries by Alexion. These discoveries involve a mechanism by which substantially all disease-causing T-cells are selectively eliminated in vivo in animal models of disease. The highly specific recombinant Apogens under development by the Company are designed to selectively eliminate disease-causing T-cells in patients with certain autoimmune diseases including multiple sclerosis and diabetes mellitus. The Company has demonstrated that its lead proprietary Apogen, MP4 ("MP4"), is effective at preventing neurologic disease and in ameliorating established disease in animal models of multiple sclerosis. Clinical trial quantities of MP4 are currently in production and the Company anticipates it will file an IND for the multiple sclerosis indication in the second half of 1997.

UniGraft Program. The Company's UniGraft program, in collaboration with US Surgical, is focused on developing non-human organ products designed for transplantation into humans without clinical rejection. Alexion has tested genetically engineered pig hearts, livers and lungs in primates and has demonstrated transplant organ function substantially longer than for transplanted non-genetically engineered porcine organs.

Gene Transfer Systems. Alexion is developing, in collaboration with GTI/Novartis, immunoprotected retroviral vector particles and producer cells which are designed to resist rejection and therefore may be able to be used for direct injectable delivery of therapeutic genes to patients' cells. Such particles and producer cells are being engineered by Alexion for subsequent preclinical evaluation by GTI.

The Company was founded in New Haven, Connecticut in January 1992 with scientific founders largely drawn from the faculty of Yale University. The Company's principal executive offices are at 25 Science Park, New Haven, Connecticut 06511, and its telephone number is (203) 776-1790.

THE OFFERING

Common Stock offered by the Selling Stockholders..... 1,974,744 shares (1)
 NASDAQ symbol..... ALXN
 Risk factors..... See "Risk Factors" for a discussion of certain factors to be considered by prospective investors.

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(1) Includes 85,936 shares of Common Stock issuable upon the exercise of the Warrants.

RECENT DEVELOPMENTS

C5 Inhibitor 5G1.1-SC Clinical Trials

An Investigational New Drug application ("IND") was filed with the United States Food and Drug Administration ("FDA") during March 1996 for 5G1.1-SC, and after receiving FDA authorization, a Phase I clinical trial in healthy male volunteers began 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, the Company received FDA authorization for its second clinical trial and in October 1996 commenced a Phase I/II study of 5G1.1-SC in patients undergoing CPB.

Gene Transfer Systems - GTI/Novartis

In December 1996, Alexion and GTI/Novartis entered into a License and Collaborative Research Agreement with respect to the Company's gene transfer technology. Under the Agreement, GTI/Novartis has been granted a worldwide exclusive license to use the Alexion technology in its gene therapy products. Terms of the agreement call for Alexion to receive up front license fees, research payments and milestone payments from GTI/Novartis totalling up to \$10 million. Alexion will also receive royalties on net sales of such products, if any.

ApogenMS - MP4

In April 1997, Alexion announced the results of a study demonstrating the efficacy of MP4, Alexion's proprietary Apogen compound, for the treatment of Multiple Sclerosis ("MS") in a primate model of MS. In the study, relative to untreated control animals, treatment with MP4 was associated with a clear dose-dependent reduction in the severity of symptoms, with animals in the high dose treatment group displaying no apparent clinical manifestations of disease. Further, MP4 prolonged the time to onset of lesions detected by magnetic resonance imaging. There can be no assurance that the results of studies in animals can be reproduced, or are predictive of results, in humans. See "Risk Factors - Early Stage of Product Development; Risks of Clinical Trials."

Private Placement of Common Stock

The Company has entered into Stock Purchase Agreements, dated as of June 12, 1997 (the "Stock Purchase Agreements"), with certain investors, pursuant to which the investors have committed to purchase 1,450,000 shares of the Common Stock of the Company at a price of \$7.75 per share, subject to the effectiveness of the Registration Statement of which this Prospectus is a part. The offer and sale by the Company of the Common Stock to the investors pursuant to the Stock Purchase Agreements was made pursuant to an exemption from the registration requirements of the Securities Act provided by Section 4(2) thereof. The Stock Purchase Agreements contain representations and warranties as to each investor's status as an "accredited investor" as such term is defined in Rule 501 promulgated under the Securities Act. Robertson, Stephens & Company LLC ("RS & Co.") acted as the placement agent for the private placement. The Company agreed, in addition to payment of the commissions described below, to reimburse RS & Co. for its reasonable out-of-pocket expenses incurred in connection with the private placement.

If the Registration Statement is declared effective on or prior to September 17, 1997, the investors will purchase the shares of Common Stock at a price per share of \$7.75, resulting in gross proceeds to the Company of \$11,237,500. The Company would be obligated to pay RS & Co. commissions of 6% of the gross proceeds, or \$674,250 in the aggregate, in addition to expenses as described above. RS & Co. has agreed to pay 10% of its fees to Josephthal Lyon & Ross Incorporated for its assistance in connection with the private placement. All of the investors in the June 1997 private placement are Selling Stockholders herein. See "Selling Stockholders."

RISK FACTORS

An investment in the Common Stock offered hereby involves a high degree of risk. Prospective investors should consider carefully the following risk factors, as well as the other information set forth in this Prospectus, in connection with an investment in the Common Stock offered hereby. This Prospectus contains forward-looking statements that involve risks and uncertainties. The Company's actual results could differ materially from the results discussed in the forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in "Risk Factors," as well as those discussed elsewhere in this Prospectus.

Operating Losses; Uncertainty of Future Profitability. Alexion has generated no revenues from product sales and is dependent upon its research and development contracts, including the agreements with US Surgical and GTI/Novartis, external financing, other research and development contracts and research and development grants to the extent that they can be obtained and interest income to pursue its intended business activities. The Company has incurred losses since inception and has cumulative net losses of \$29.1 million through April 30, 1997. Losses have resulted principally from costs incurred in research activities aimed at identifying and developing the Company's product candidates and from general and administrative costs. The Company expects to incur substantial additional operating losses over the next several years and expects losses to increase as the Company's research and development efforts expand and clinical trials continue and potentially expand. The Company's ability to achieve profitability is dependent on its ability to obtain patent protection and regulatory approval for its products, to obtain licenses from third parties to use technology which it may need, to enter into agreements for product development and commercialization with corporate partners and to develop the capacity to manufacture and sell products. There can be no assurance that the Company will successfully develop, commercialize, manufacture or market any of its potential products, obtain required regulatory approvals, patents or third party licenses to technology or ever achieve profitability.

Early Stage of Product Development; Risks of Clinical Trials. The Company's research and development programs are at an early stage. There can be no assurance that the Company's drug discovery efforts will result in the development of commercially successful therapeutic drugs. Potential products which have been identified will require significant additional development, preclinical and clinical testing, regulatory approval, and additional investment prior to their commercialization, which may never be achieved. Potential products may be found to be ineffective or cause harmful side effects 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, 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.

In addition, the Company has recently commenced clinical trials of one of its product candidates. There can be no assurance that clinical trials of the Company's product candidates will demonstrate sufficient safety and efficacy to obtain the requisite regulatory approvals or will 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 such setback could have a material adverse effect on the Company's business, financial condition and results of operations. The completion of clinical trials of the Company's product candidates may be delayed by many factors and there can be no assurance that delays or terminations will not occur. One such 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, the number of clinical trial sites, the proximity of patients to clinical trial sites, the eligibility criteria for the trial and the existence of competing clinical trials. The Company cannot control the rate at which patients present themselves for enrollment, and there can be no assurance that the rate of patient enrollment will be consistent with the Company's expectations or be sufficient to enable clinical trials of the Company's product candidates to be completed in a timely manner.

Need for Additional Funds. The Company will require substantial additional funds for its research and product development programs, for operating expenses, for pursuing regulatory approval and for developing required production, sales and marketing capabilities. With the exception of the Company's agreements with US Surgical and GTI/Novartis and certain research grants, the Company does not have any commitments or arrangements to obtain any such funds and there can be no assurance that funds for these purposes, whether through additional sales of securities or collaborative or other arrangements with corporate partners or from other sources, will be available to the Company when needed or on terms favorable to the Company. The unavailability of additional financing could require the Company to delay, scale back or eliminate certain of its research and product development programs or to license third parties to commercialize products or technologies that the Company would otherwise undertake itself, any of which would have a material adverse effect on the Company. The Company believes that its existing available resources, together with anticipated future funding from US Surgical and GTI/Novartis and certain research grants, and interest income should be sufficient to fund its operating expenses and capital requirements as currently planned for at least 12 months. However, the Company's cash requirements may vary materially from those now planned because of results of research and development, results of product testing, relationships with strategic partners, changes in the focus and direction of the Company's research and development programs, competitive and technological factors, developments in the regulatory process and other factors, none of which can be predicted.

Rapid Technological Change. The Company is 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. There can be no assurance that research and discoveries by others will not render any of the Company's programs or potential products obsolete or uneconomical. In order to compete successfully, the Company will need to complete development of and obtain regulatory approval of products that keep pace with technological developments on a timely basis. Any failure by the Company to anticipate or respond adequately to technological developments will have a material adverse effect on the Company's business, financial condition and results of operations.

Patent, License and Proprietary Rights Uncertainties. The Company's success will depend in part on its ability to obtain United States and foreign patent protection for its products, preserve its trade secrets and proprietary rights, and operate without infringing on the proprietary rights of third parties or having third parties circumvent the Company's rights. Because of the length of time and expense associated with bringing new products through development and regulatory approval to the marketplace, the health care industry has traditionally placed considerable importance on obtaining patent and trade secret protection for significant new technologies, products and processes. There can be no assurance that any patents will issue from any of the patent applications owned by or licensed to the Company. Further, even if patents were to issue, there can be no assurance that they will provide the Company with significant protection against competitive products or otherwise be commercially valuable. In addition, patent law relating to certain of the Company's 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 the Company's patent rights. Litigation, which could be costly and time consuming, may be necessary to enforce patents issued to the Company and/or to determine the scope and validity of others' proprietary rights, in either case in judicial or administrative proceedings. The Company's competitive position is also dependent upon unpatented trade secrets which generally are difficult to protect. There can be no assurance that others will not independently develop substantially equivalent proprietary information and techniques or otherwise gain access to the Company's trade secrets, that the Company's trade secrets will not be disclosed or that the Company can effectively protect its rights to unpatented trade secrets. As the biotechnology industry expands and more patents are issued, the risk increases that the Company's potential products may give rise to claims that they infringe the patents of others. Any such infringement litigation would be costly and time consuming to the Company.

The Company is 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. The Company has received notice from one company regarding the existence of a patent which the owners claim may be relevant to the development and commercialization of certain of the Company's proposed UniGraft organ transplantation products. The Company has

identified and is testing various approaches which it believes should not infringe this patent and which should permit commercialization of its products. There can be no assurance that the owner of this patent will not seek to enforce the patent against the Company's so-modified commercial products or against the development activities related to the non-modified products. To the extent it becomes necessary, there can be no assurance that the Company will be able to obtain a license on commercially reasonable terms. If the Company does not obtain necessary licenses, it could encounter delays in product market introductions while it attempts to design around such patent, or could find that the development, manufacture or sale of products requiring such a license could be foreclosed. Further, there can be no assurance that owners of patents that the Company does not believe are relevant to the Company's product development and commercialization will not seek to enforce their patents against the Company. Such action could result in litigation which would be costly and time consuming. There can be no assurance that the Company would be successful in such litigations. The Company is currently unaware of any such threatened action.

Certain of the licenses by which the Company obtained its rights in and to certain technologies require the Company to diligently commercialize or attempt to commercialize such technologies. There can be no assurance that the Company will meet such requirements, and failure to do so for a particular technology could result in the Company losing its rights to that technology.

Currently, the Company has not sought to register its potential trademarks and there can be no assurance that the Company will be able to obtain registration for such trademarks.

No Assurance of FDA Approval; Government Regulation. The preclinical and clinical testing, manufacturing, and marketing of the Company's products are subject to extensive regulation by numerous government authorities in the United States and other countries, including, but not limited to, the FDA. Among other requirements, FDA approval of the Company's products, including a review of the manufacturing processes and facilities used to produce such products, will be required before such products may be marketed in the United States. Similarly, marketing approval by a foreign governmental authority is typically required before such products may be marketed in a particular foreign country. In order to obtain FDA approval of a product, the Company must, among other things, demonstrate to the satisfaction of the FDA that the product is safe and effective for its intended uses and that the Company is capable of manufacturing the product with procedures that conform to the FDA's then current good manufacturing practice ("cGMP") regulations, which must be followed at all times. The process of seeking FDA approvals can be costly, time consuming, and subject to unanticipated and significant delays. There can be no assurance that such approvals will be granted to the Company on a timely basis, or at all. Any delay in obtaining or any failure to obtain such approvals would adversely affect the Company's ability to introduce and market products and to generate product revenue.

The Company's research and development processes involve the controlled use of hazardous materials. The Company is 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, the Company could be held liable for any damages that result and any such liability could exceed the resources of the Company. There can be no assurance that the Company will not be required to incur significant costs to comply with the environmental laws and regulations in the future, or that the business, financial condition and results of operations of the Company will not be materially adversely affected by current or future environmental laws or regulations.

Substantial Competition. The pharmaceutical and biotechnology industries are characterized by intense competition. Many companies, including major pharmaceutical and chemical companies, as well as specialized biotechnology companies, are engaged in activities similar to those of the Company. Certain of these companies have substantially greater financial and other resources, larger research and development staffs, and more extensive marketing and manufacturing organizations than the Company. 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 the Company in recruiting and retaining highly qualified scientific personnel.

In particular, T-Cell Sciences, Inc. and Chiron Corporation have both publicly announced intentions to develop complement inhibitors to treat diseases related to trauma and inflammation indications and the Company is aware that SmithKline Beecham Plc, Merck & Co., Inc. and CytoMed Inc. are attempting to develop similar therapies. In addition, each of Bayer A.G. ("Bayer"), Immunex Corporation, Pharmacia & Upjohn and Rhone-Poulenc Rorer, Inc. sells a product which is used to reduce surgical bleeding during CPB. The Company is also aware of announced and ongoing clinical trials of certain companies, including Autoimmune, Inc., ImmuLogic Pharmaceutical 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 Sandoz, Inc., in collaboration with Biotransplant Inc., have publicly announced intentions to commercially develop xenograft organs and the Company is aware that Diacrin Inc. is also working in this field. These companies may succeed in developing products that are more effective or less costly than any that may be developed by Alexion and may also prove to be more successful than Alexion in production and marketing. 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. The Company is highly dependent upon the efforts of its senior management and scientific personnel including its consultants, generally, and Dr. Leonard Bell, its President and Chief Executive Officer, in particular. The Company and Dr. Bell are parties to an employment agreement which expires on April 1, 2000. The loss of the services of one or more of these individuals could have a material adverse effect on the Company's ability to achieve its development objectives on a timely basis or at all. The Company has a \$2,000,000 key man life insurance policy on the life of Dr. Bell of which the Company is the beneficiary. Because of the specialized scientific nature of its business, Alexion is also highly dependent upon its ability to continue to attract and retain qualified scientific and technical personnel. There is intense competition for qualified personnel in the areas of the Company's activities, and there can be no assurance that Alexion will be able to continue to attract and retain the qualified personnel necessary for the development of its business. Loss of the services of, or failure to recruit, key scientific and technical personnel would be significantly detrimental to the Company's product development programs.

All members of the Company's Board of Scientific Advisors and the Company's other scientific consultants are employed on a full-time basis by academic or research institutions. Accordingly, such advisors and consultants will be able to devote only a small portion of their time to the Company. In addition, in certain circumstances, inventions or processes discovered by them may not become the property of the Company but may be the property of their full-time employers or of other companies and institutions for which they now consult. There can be no assurance that the interests and motivations of the Company's collaborators are or will remain consistent with those of the Company. Furthermore, there can be no assurance that the Company will be able to successfully negotiate license rights to the results of collaborations or that such licenses will be on commercially reasonable terms.

Dependence on Outside Parties and Collaborators. The Company's strategy for the research, development, manufacture and commercialization of certain of its products contemplates that it will enter into various arrangements with corporate partners, licensors, licensees, outside researchers, consultants and others and, therefore, the success of the Company is, and will be, dependent in part upon the efforts of outside parties. There can be no assurance that the Company will be able to negotiate acceptable collaborative arrangements to develop or commercialize its 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 the Company. The Company has entered into research and development agreements with US Surgical and GTI/Novartis to commercialize potential products to be developed in the UniGraft program and for gene therapy. The amount and timing of resources which US Surgical, GTI/Novartis or any other potential parties to collaboration arrangements devote to these activities may not be within the control of the Company. There can be no assurance that outside parties and collaborators will perform their obligations as expected or that any revenue will be derived from outside arrangements. The Joint Development Agreement with US Surgical may be terminated by US Surgical

for any or no reason effective on or after January 1, 1998, if notice is given by US Surgical at least six months prior thereto. If any of the Company's collaborators breaches or terminates its agreement with the Company 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 and the Company may be required to undertake unforeseen additional responsibilities or to devote additional resources to development or commercialization or terminate the development or commercialization. This could have a material adverse effect on the Company's prospects, financial condition, intellectual property position and results of operations.

Limited Manufacturing, Marketing, Sales, Clinical Testing and Regulatory Compliance Capability. The Company has not invested in the development of commercial manufacturing, marketing, distribution or sales capabilities. Moreover, the Company has 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 the Company is unable to develop or contract for additional manufacturing capabilities on acceptable terms, the Company's 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, which could have a material adverse effect on the Company's competitive position and the Company's prospects for achieving profitability. In addition, as the Company's product development efforts progress, the Company will need to hire additional personnel skilled in clinical testing, regulatory compliance, and, if the Company develops products with commercial potential, marketing and sales. There can be no assurance that the Company will be able to acquire, or establish third-party relationships to provide, any or all of these resources or be able to obtain required personnel and resources to manufacture, or perform testing or engage in marketing, distribution and sales on its own.

Uncertainty of Availability of Health Care Reimbursement. The Company's ability to commercialize its 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 health care products, and if the Company succeeds in bringing one or more products to market, there can be no assurance that these products will be considered cost-effective, that reimbursement will be available, or, if available, that the payor's reimbursement policies will not materially adversely affect the Company's ability to sell its products on a profitable basis.

Product Liability; Potential Liability for Human Clinical Trials. The Company's business exposes it to potential product liability risks which are inherent in the testing, manufacturing, marketing and sale of human therapeutic products and there can be no assurance that the Company will be able to avoid significant product liability exposure. With respect to the Company's 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, the Company may be liable to the claims of individuals who participate in human clinical trials of its products. While the Company has 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 behalf of the Company, there can be no assurance that waivers will be effective to protect the Company from liability or the costs of product liability litigation. The Company currently has product liability insurance to cover certain liabilities relating to the conduct of human clinical trials. However, there can be no assurance that it will be able to maintain such insurance on acceptable terms or that the insurance will provide adequate protection against potential liabilities. An inability to maintain sufficient insurance coverage at an acceptable cost or otherwise to protect against potential product liability claims could prevent or limit the commercialization of products developed by the Company. Furthermore, a product liability related claim or recall could have a material adverse effect on the business, financial condition and results of operations of the Company.

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 the Company or its 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 the Company's collaborators and market conditions in general may have a significant impact on the market price of the Company's Common Stock.

Dilutive Effect of Stock Issuances, Grants, Options and Warrants. As of April 30, 1997, Alexion has granted options to purchase an aggregate of approximately 1,332,334 shares of the Company's Common Stock under certain stock option plans. Warrants to purchase an aggregate of approximately 945,669 shares of the Company's Common Stock, including the Warrants, are also outstanding under previous financing arrangements and other transactions. Many of these options and warrants have exercise prices below the current market price of the Company's Common Stock. In addition, the Company may issue additional stock, warrants and/or options to raise capital in the future. The Company regularly examines opportunities to expand its technology base through means such as licenses, joint ventures and acquisition of assets or ongoing businesses and may issue securities in connection with such transactions. The Company may also issue additional securities in connection with its stock option plans. During the terms of such options and warrants, the holders thereof are given the opportunity to profit from a rise in the market price of the Company's Common Stock. The exercise of such options and warrants may have an adverse effect on the market value of the Company's Common Stock. The existence of such options and warrants may adversely affect the terms on which the Company can obtain additional equity financing. To the extent the exercise prices of such options and warrants are less than the net tangible book value of the Company's Common Stock at the time such options and warrants are exercised, the Company's stockholders will experience an immediate dilution in the net tangible book value of their investment.

No Dividends. The Company has not paid dividends on any of its capital stock since its inception and does not expect to pay cash or stock dividends on its Common Stock in the foreseeable future.

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 the stockholders of the Company, the terms of which may adversely affect the rights of holders of Common Stock. Issuance of Preferred Stock, which may be accomplished through a public offering or a private placement, 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 such 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 of Alexion declared a dividend distribution of one preferred stock purchase right (a "Right") for each outstanding share of Common Stock of the Company. The 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 the Company that a person or group of affiliated or associated persons has acquired beneficial ownership of 20% or more of the outstanding shares of Common Stock of the Company (such 20% beneficial owner, an "Acquiring Person"), or (ii) ten business days, or such later date as may be determined by the Board of Directors of the Company, after the date of the commencement or announcement by a person of an intention to make a tender offer or exchange offer for an amount of Common Stock which, together with the shares of such stock already owned by such person, constitutes 20% or more of the outstanding shares of such Common Stock. The Rights and the Rights Agreement, as well as certain provisions of Delaware law are designed to prevent any unsolicited acquisitions of the Company's 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 April 30, 1997, directors and officers of the Company and certain principal stockholders and their affiliates beneficially owned in the aggregate 2,087,084 shares of Common Stock, representing 26.5% of the outstanding shares of Common Stock. Accordingly, they have the ability to influence significantly the affairs of the Company and matters requiring a stockholder vote, including the election of the Company's directors, the amendment of the Company's charter documents, the merger or dissolution of the Company and the sale of all or substantially all of the Company's assets. The voting power of these holders may also discourage or prevent any proposed takeover of the Company pursuant to a tender offer.

USE OF PROCEEDS

The Company will not receive any proceeds from the sale of the shares of Common Stock by the Selling Stockholders. The proceeds, if any, received by the Company upon the exercise of the Warrants will be utilized by the Company for working capital purposes.

SELLING STOCKHOLDERS

The following table sets forth certain information regarding the beneficial ownership of Common Stock of each Selling Stockholder and as adjusted to give effect to the sale of the Shares offered hereby. 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."

Of the 1,974,744 shares of Common Stock being offered by the Selling Stockholders, 1,450,000 were acquired, subject to the effectiveness of the Registration Statement of which this Prospectus is a part, from the Company in a private placement transaction pursuant to Stock Purchase Agreements dated as of June 12, 1997 at a purchase price per share of \$7.75. Each Selling Stockholder that purchased Common Stock pursuant to a Stock Purchase Agreement represented to the Company that it was acquiring the shares for investment and with no present intention of distributing any of such shares.

The Company is registering 126,310 shares of Common Stock issued to Selling Stockholders upon the conversion of Series A Preferred Stock, pursuant to the exercise of piggy-back registration rights which were granted to such Selling Stockholders in connection with their purchase of the Series A Preferred Stock in December 1994, 312,498 shares acquired by Selling Stockholders in a private placement of securities in December 1993, and 85,936 shares issuable upon the exercise of the Warrants which were issued by the Company in connection with the December 1993 private placement.

Name of Selling Shareholder (1)	Amount of Beneficial Ownership Prior to Offering		Number of Shares Being Offered	Amount of Beneficial Ownership After Offering	
	Number of Shares (2)	Percent of Class		Number of Shares	Percent of Shares
Caduceus Capital Ltd.(3)	30,000	*	30,000	0	0
Caduceus Capital L.P.(3)	460,000	5.22	10,000	450,500	5.11
PHARMA/wHEALTH(3)	590,500	6.69	140,000	450,500	5.11
Eaton Vance Worldwide Health Science Fund(3)	120,000	1.36	120,000	0	0
Harpel Partners, L.P.(4)	30,100	*	30,100	0	0
Harpel International(4)	4,400	*	4,400	0	0
Harpel Select(4)	4,000	*	4,000	0	0
Harpel Family Partnership(4)	4,500	*	4,500	0	0
Reisen Family Partnership(4)	7,000	*	7,000	0	0
Jason M. Aryeh	17,500	*	17,500	0	0
Framlington Health Fund(5)	65,000	*	65,000	0	0
Heisen & Co. A/C Framlington Munder Health Fund	5,000	*	5,000	0	0
Sigler & Co. A/C Gespral(5)	10,000	*	10,000	0	0
Sigler & Co. A/C Seleution Sante(5)	20,000	*	20,000	0	0
Investor International (US) Inc.	50,000	*	50,000	0	0
Bear Stearns Securities Corp. FBO Closefire Ltd.(6)	6,500	*	6,500	0	0
Bear Stearns Securities Corp. FBO Pogue Capital International Ltd.(6)	10,000	*	10,000	0	0
NMB Investment Group	90,000	1.02	90,000	0	0
Bayboat & Co.	400,000	4.53	400,000	0	0
The Medical Response Fund, L.P.(7)	22,000	*	22,000	0	0
The Bio-Tech Equity Fund, L.P.(7)	5,500	*	5,500	0	0
Mellon Bank NA Custodian for PERSI - Zesiger Capital	64,000	*	64,000	0	0
Westcoast & Co.	316,000	3.58	316,000	0	0
Essex Special Growth Opportunities Fund, L.P.	18,500	*	18,500	0	0
Oak Investment Partners V, Limited Partnership(8)	507,862	5.69	484,977	22,885	*

Name of Selling Shareholder (1)	Amount of Beneficial Ownership Prior to Offering		Number of Shares Being Offered	Amount of Beneficial Ownership After Offering	
	Number of Shares (2)	Percent of Class		Number of Shares	Percent of Shares
Oak V Affiliates Fund, Limited Partnership (9)	11,422	*	10,907	515	*
S. L. Hammerman Grantor Trust dated 6/12/86 (10)	5,262	*	5,262	0	0
Amy Hammerman Cahn Grantor Trust dated 6/12/86 (10)	5,262	*	5,262	0	0
Sandye Hammerman Nast Grantor Trust dated 6/12/86 (10)	5,262	*	5,262	0	0
I. H. Hammerman, II, Trustee for Mark Lee Hammerman (10)	5,262	*	5,262	0	0
Schroders Incorporated (11)	28,864	*	7,812	21,052	*

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* Less than one percent

(1) Except as otherwise indicated, each Selling Stockholder acquired its shares from the Company in private placement transactions pursuant to Stock Purchase Agreements dated as of June 12, 1997 at a purchase price per share of \$7.75.

(2) The number of shares beneficially owned is determined by assuming that options or warrants held by such person (but not those held by any other person) which are exercisable or convertible within 60 days have been exercised or converted.

(3) Viren Mehta and Samuel D. Isaly are sole shareholders of (i) M and I Investors, Inc., which serves as financial advisor to Caduceus Capital Ltd., (ii) Carduceus Capital Management, Inc., which serves as financial advisor to Caduceus Capital, L.P. and (iii) Mehta and Isaly Asset Management, Inc., which serves as financial advisor to Eaton Vance Worldwide Health Science Fund. Messrs. Mehta and Isaly are general partners of Caduceus Capital, L.P. M and I Investors, Inc. is also the manager and financial advisor of PHARMA/WHEALTH. As such, Messrs. Mehta and Isaly may be deemed to be the beneficial owners of these shares.

(4) James Harpel is general partner of Harpel Family, L.P., which is the general partner of Harpel Partners, L.P. and Harpel Select. In addition, Mr. Harpel is a majority shareholder in Harpel Advisory Company which serves as investment manager to Harpel International and Reisen Family Partnership. Mr. Harpel is general partner and a majority owner of Harpel Family Partnership. As such, Mr. Harpel may be deemed to be the beneficial owner of these shares.

(5) These Funds are managed by Framlington Investment Management of which Mr. Anthony Milford is a director and fund manager. As such, Mr. Milford may be deemed the beneficial owner of the shares. However, Mr. Milford disclaims beneficial ownership of these shares.

(6) Pogue Capital Management, Inc. is the manager and investment advisor of Closefire Ltd. and Pogue Capital International Ltd. Mai Pogue serves as the President and as a director of Pogue Capital Management, Inc. As such, Ms. Pogue may be deemed to be the beneficial owner of these shares. However, Ms. Pogue disclaims any beneficial ownership of these shares.

(7) Brad Daniel and Daniel Hipp are General Partners in the Medical Response Fund, L.P. and the Bio-Tech Equity Fund, L.P. As such, Messrs. Daniel and Hipp may be deemed to be the beneficial owners of the shares.

(8) Of the 507,862 shares beneficially owned by this Selling Stockholder, 22,885 shares are issuable upon the exercise of options which are exercisable within 60 days of June 6, 1997. The 484,977 shares registered herein do not include the shares issuable upon the exercise of options, but do include 76,406 shares issuable upon the exercise of warrants to purchase Common Stock at an exercise price of \$7.50 per share and 102,947

shares issued upon conversion of Series A Preferred Stock. Eileen M. More, a director of the Company, is the General Partner of this Selling Stockholder.

- (9) Of the 11,422 shares beneficially owned by this Selling Stockholder, 515 shares are issuable upon the exercise of options which are exercisable within 60 days of June 6, 1997. The 10,907 shares registered herein do not include the shares issuable upon exercise of options, but do include 1,718 shares issuable upon the exercise of warrants to purchase Common Stock at an exercise price of \$7.50 per share and 2,315 shares issued upon conversion of Series A Preferred Stock. Eileen M. More, a director of the Company, is a General Partner of this Selling Stockholder.
- (10) The shares beneficially owned and registered by this Selling Stockholder were issued upon the conversion of Series A Preferred Stock.
- (11) Of the 28,864 shares beneficially owned by this Selling Stockholder, the 7,812 shares registered herein are issuable upon the exercise of warrants to purchase Common Stock at an exercise price of \$7.50 per share. Timothy F. Howe, a director of the Company, is Vice President and a stockholder of Collinson Howe Venture Partners, Inc. ("CHVP"). CHVP is a venture capital investment management firm which is the investment advisor to this Selling Stockholder.

PLAN OF DISTRIBUTION

The distribution of the shares of Common Stock by the Selling Stockholders may be effected from time to time in one or more transactions (which may involve block transactions) in the over-the-counter market or on NASDAQ (or any exchange on which the Common Stock may then be listed) in negotiated transactions, through the writing of options (whether such options are listed on an options exchange or otherwise), or a combination of such methods of sale, at market prices prevailing at the time of sale, at prices related to such prevailing market prices or at negotiated prices. The Selling Stockholders may effect such transactions by selling shares to or through broker-dealers, and such broker-dealer may receive compensation in the form of underwriting discounts, concessions or commissions from the Selling Stockholders and/or purchasers of shares for whom they may act as agent (which compensation may be in excess of customary commissions). The Selling Stockholders may also sell such shares pursuant to Rule 144 promulgated under the Securities Act, or may pledge shares as collateral for margin accounts and such shares could be resold pursuant to the terms of such accounts. The Selling Stockholders and any broker-dealers that act in connection with the sale of the Common Stock 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.

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, such Selling Stockholders, any selling broker or dealer and any "affiliated purchasers" may be subject to Rule 10b-6 under the Exchange Act or Regulation M promulgated thereunder, which prohibits, with certain exceptions, any such person from bidding for or purchasing any security which is the subject of such distribution until his participation in that distribution is completed. In addition, Rule 10b-7 under the Exchange Act or Regulation M promulgated thereunder, 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.

In order to comply with certain state securities laws, if applicable, the Common Stock will not be sold in a particular state unless such securities have been registered or qualified for sale in such state or any exemption from registration or qualification is available and complied with.

The Company will not receive any of the proceeds from the sale of Common Stock by the Selling Stockholders. The proceeds, if any, from the exercise of the Warrants will be received by the Company; no brokerage commissions or discounts will be paid in connection therewith.

LEGAL MATTERS

The validity of the issuance of the shares of Common Stock offered hereby will be passed upon for the Company by Fulbright & Jaworski L.L.P., New York, New York.

EXPERTS

The 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 is incorporated herein in reliance upon the authority of said firm as experts in giving said report.

PART II

ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.

The following table sets forth the Company's estimates (other than the SEC registration fee) of the expenses in connection with the issuance and distribution of the shares of Common Stock being registered. None of the following expenses are being paid by the Selling Stockholders.

SEC registration fee	\$ 5,461
Legal fees and expenses	\$ 15,000
Accounting fees and expenses	\$ 3,000

Miscellaneous expenses	\$ 6,539

Total:	\$ 30,000
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ITEM 15. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

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

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

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

Certificate provides that a director of the Company shall not be personally liable to the Company or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the Company or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL, or (iv) for any transaction from which the director derived an improper personal benefit.

ITEM 16. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.

(a) Exhibits.

- 4.1 Form of Stock Purchase Agreement between the Registrant and the investors in the June 1997 private placement.*
- 5.1 Opinion of Fulbright & Jaworski L.L.P. regarding legality.*
- 10.1 See Exhibit 4.1.
- 10.2 Form of Investor Rights Agreement, dated December 23, 1994, between the Company and the purchasers of the Company's Series A Preferred Stock (incorporated by reference to Exhibit 10.15 to the Company's Registration Statement on Form S-1 (Registration No. 33-00202)).
- 10.3 Form of Warrant (incorporated by reference to Exhibit 10.19 to the Company's Registration Statement on Form S-1 (Registration No. 33-00202)).
- 23.1 Consent of Fulbright & Jaworski L.L.P. (included in Exhibit 5)
- 23.2 Consent of Arthur Andersen LLP
- 24.1 Power of Attorney (included on signature page)

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* Previously filed.

ITEM 17. UNDERTAKINGS.

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment of this registration statement:

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

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

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

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

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

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

(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 that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the provisions

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

SIGNATURES

PURSUANT TO THE REQUIREMENTS OF THE SECURITIES ACT OF 1933, AS AMENDED, THE REGISTRANT HAS DULY CAUSED THIS REGISTRATION STATEMENT TO BE SIGNED ON ITS BEHALF BY THE UNDERSIGNED, THEREUNTO DULY AUTHORIZED, IN THE CITY OF NEW HAVEN AND STATE OF CONNECTICUT ON THE 7th DAY OF JULY, 1997.

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 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)	July 7, 1997
/s/ DAVID W. KEISER ----- David W. Keiser	Executive Vice President and Chief Operating Officer (principal financial officer)	July 7, 1997
/s/ BARRY P. LUKE ----- Barry P. Luke	Senior Director of Finance and Administration (principal accounting officer)	July 7, 1997
/s/ JOHN H. FRIED ----- John H. Fried, Ph.D.	Chairman of the Board of Directors	July 7, 1997
/s/ JOSEPH A. MADRI ----- Joseph A. Madri, Ph.D., M.D.	Director	July 7, 1997
/s/ LEONARD MARKS ----- Leonard Marks, Jr., Ph.D.	Director	July 7, 1997
/s/ MAX LINK ----- Max Link, Ph.D.	Director	July 7, 1997
----- Eileen M. More	Director	July __, 1997
/s/ TIMOTHY F. HOWE ----- Timothy F. Howe	Director	July 7, 1997

EXHIBIT INDEX

Exhibit Number - - - - -	Exhibit -----
4.1	Form of Stock Purchase Agreement between the Registrant and the investors in the June 1997 private placement.*
5.1	Opinion of Fulbright & Jaworski L.L.P.*
10.1	See Exhibit 4.1
10.2	Form of Investor Rights Agreement, dated December 23, 1994, between the Company and the purchasers of the Company's Series A Preferred Stock (incorporated by reference to Exhibit 10.15 to the Company's Registration Statement on Form S-1 (Registration No. 33-00202)).
10.3	Form of Warrant (incorporated by reference to Exhibit 10.19 to the Company's Registration Statement on Form S-1 (Registration No. 33-00202)).
23.1	Consent of Fulbright & Jaworski L.L.P. (included in Exhibit 5.1).
23.2	Consent of Arthur Andersen LLP, Independent Auditors.
24.1	Power of Attorney (included in signature page).

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* Previously filed.

ARTHUR ANDERSEN LLP

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 30, 1996 included in Alexion Pharmaceuticals, Inc.'s Form 10-K for the year ended July 31, 1996 and to all references to our Firm included in this registration statement.

/s/ ARTHUR ANDERSEN LLP

Hartford, Connecticut
July 7, 1997