FILED PURSUANT TO RULE
424(b)(1). REGISTRATION
NO. 333-34379

PROSPECTUS

ATLANTIC PHARMACEUTICALS, INC.

250,000 SHARES OF COMMON STOCK, OFFERED BY CERTAIN SELLING SECURITYHOLDERS

This prospectus (the "Prospectus") relates to the public offering, which is not being underwritten, of 250,000 shares (the "Shares") of Common Stock, par value $0.001 per share (the "Common Stock"), of Atlantic Pharmaceuticals, Inc., a Delaware corporation ("Atlantic" or the "Company"). All of the Shares may be offered by certain stockholders of the Company or by pledgees, donees, transferees or other successors in interest that receive such shares as a gift, partnership distribution or other non-sale related transfer (the "Selling Securityholders"). The Shares were received by certain Selling Securityholders in a private placement transaction of the Company and were issued pursuant to an exemption from the registration requirements of the Securities Act of 1933, as amended (the "Securities Act"), provided by Section 4(2) thereof. The Shares are being registered by the Company pursuant to a registration rights agreement with certain Selling Securityholders. See "Description of Securities" and "Plan of Distribution."

The Shares may be offered by the Selling Securityholders from time to time in transactions on the Nasdaq SmallCap Market ("Nasdaq"), in privately negotiated transactions, or by a combination of such methods of sale, at fixed prices that may be changed, at market prices prevailing at the time of sale, at prices related to such prevailing market prices or at negotiated prices. The Shares may be sold by one or more of the following: (a) a block trade in which the broker or dealer so engaged will attempt to sell the Shares as agent but may position and resell a portion of the block as principal to facilitate the transaction, (b) purchases by a broker or dealer as principal and resale by such broker or dealer for its account pursuant to this Prospectus and (c) ordinary brokerage transactions and transactions in which the broker solicits purchases. The Selling Securityholders may effect such transactions by selling the Shares to or through broker-dealers and such broker-dealers may receive compensation in the form of discounts, concessions or commissions from the Selling Securityholders or the purchasers of the Shares for whom such broker-dealers may act as agent or to whom they sell as principal or both (which compensation to a particular broker-dealer might be in excess of customary commissions). In addition, any securities covered by this Prospectus which qualify for sale pursuant to Rule 144 may be sold under Rule 144 promulgated under the Securities Act rather than pursuant to this Prospectus. The Company will not receive any of the proceeds from the sale of the Shares by the Selling Securityholders. The Company has agreed to bear certain expenses in connection with the registration and sale of the Shares being offered by the Selling Securityholders and to indemnify the Selling Securityholders against certain liabilities, including liabilities under the Securities Act. See "Plan of Distribution."

The Units, Common Stock and Redeemable Warrants of the Company are traded on The Nasdaq SmallCap Market tier of The Nasdaq Stock Market under the symbols "ATLCU," "ATLC" and "ATLCW," respectively. On November 11, 1997, the last sale price for the Units, Common Stock and Redeemable Warrants as quoted on Nasdaq was $13.00, $9.0625 and $4.375, respectively, per security.

The Selling Securityholders and any broker-dealers or agents that participate with the Selling Securityholders in the distribution of the Shares may 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 purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act.

THE SECURITIES OFFERED HEREBY INVOLVE A HIGH DEGREE OF RISK. SEE "RISK FACTORS" BEGINNING ON PAGE 3.

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 NOVEMBER 12, 1997.

No dealer, salesperson or other person has been authorized to give any information or to make any representations other than those contained in this Prospectus and, if given or made, such information or representations must not be relied upon as having been authorized by the Company, any Selling Securityholders or by any other person. This Prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities other than the shares of Common Stock offered hereby, nor does it constitute an offer to sell or a solicitation of an offer to buy any of the shares offered hereby to any person in any jurisdiction in which such offer or solicitation would be unlawful. Neither the delivery of this Prospectus nor any sale made hereunder shall under any circumstances create any implication that the information contained herein is correct as of any date subsequent to the date hereof.

AVAILABLE INFORMATION

Atlantic was incorporated in the State of Delaware on May 18, 1993 and commenced operations on July 13, 1993. As used in this Prospectus, unless the context requires otherwise, the "Company" means Atlantic Pharmaceuticals, Inc. and its subsidiaries. The Company's principal executive offices are located at 1017 Main Campus Drive, Suite 3900, Raleigh, North Carolina 27606. The Company's telephone number at that address is (919) 513-7020. The Company's Units, Common Stock, and Redeemable Warrants are quoted on Nasdaq under the respective symbols "ATLCU," "ATLC" and "ATLCW."

Atlantic is subject to the information requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and in accordance therewith, is required to file periodic reports, proxy materials and other information with the Securities and Exchange Commission (the "Commission"). Reports, proxy statements and other information 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, or at its regional offices located at Suite 1400, Northwest Atrium Center, 500 West Madison Street, Chicago, Illinois 60661 and at 7 World Trade Center, Suite 1300, New York, New York 10048. Copies of such materials may also be obtained from the Public Reference Section of the Commission, 450 Fifth Street, N.W., Washington, DC 20549, at prescribed rates. In addition, the Commission maintains a World Wide Web site that contains reports, proxy and information statements and other information regarding issuers, including the Company, that file electronically with the Commission. Such Web site can be found at http://www.sec.gov. The materials described above may also be inspected at the offices of Nasdaq Operations, 1735 K Street, N.W., Washington, DC 20006.

This Prospectus, which constitutes a part of a Registration Statement on Form S-3 (the "Registration Statement") filed by the Company with the Commission under the Securities Act, omits certain of the information set forth in the Registration Statement and the exhibits and schedules thereto. For further information with respect to the Company and the Shares offered hereby, reference is made to the Registration Statement and the exhibits and schedules filed as a part thereof. Statements contained in this Prospectus concerning the contents of any contract or any other document referred to are not necessarily complete; reference is made in each instance to the copy of such contract or document filed as an exhibit to the Registration Statement. Each such statement is qualified in all respects by such reference to such exhibit. The Registration Statement, including all exhibits and schedules thereto, may be inspected without charge at the Commission's principal office in Washington, D.C., and copies of all or any part thereof may be obtained from such office after payment of fees prescribed by the Commission.

INFORMATION INCORPORATED BY REFERENCE

The following documents filed by the Company with the Commission (File No. 0-19750) pursuant to the Exchange Act are incorporated by reference in this Prospectus:

1. The Company's Annual Report on Form 10-KSB for the fiscal year ended December 31, 1996, Quarterly Report on Form 10-QSB for the fiscal quarter ended March 31, 1997, Current Report on Form 8-K filed with the Commission on June 9, 1997, Quarterly Report on Form 10-QSB for

the fiscal quarter ended June 30, 1997 and Quarterly Report on Form 10-QSB for the fiscal quarter ended September 30, 1997;

2. The Company's definitive Proxy Statement dated May 8, 1997 filed in connection with the Company's 1997 Annual Meeting of Stockholders;

3. The description of the Company's securities contained in the Company's Registration Statement on Form 8-A filed under the Exchange Act on November 27, 1995, including any amendment or report filed for the purpose of updating such description.

All documents filed by the Company pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of this Prospectus but prior to the termination of the offering to which this Prospectus relates shall be deemed to be incorporated by reference in this Prospectus and to be part hereof from the date of filing of such documents. Any statement contained in a document incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Prospectus to the extent that a statement contained herein or in any other subsequently filed document which also is incorporated herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, in its unmodified form, to constitute a part of this Prospectus.

Upon written or oral request, the Company will provide without charge to each person to whom a copy of the Prospectus is delivered a copy of the documents incorporated by reference herein (other than exhibits to such documents unless such exhibits are specifically incorporated by reference therein). Requests should be submitted in writing or by telephone at (919) 513-7020 to Director of Investor Relations, Atlantic Pharmaceuticals, Inc., at the principal executive offices of the Company, 1017 Main Campus Drive, Suite 3900, Raleigh, North Carolina 27606.

RISK FACTORS

AN INVESTMENT IN THE SECURITIES OFFERED HEREBY IS SPECULATIVE IN NATURE, INVOLVES A HIGH DEGREE OF RISK AND SHOULD NOT BE MADE BY AN INVESTOR WHO CANNOT AFFORD THE LOSS OF HIS ENTIRE INVESTMENT. THE FOLLOWING RISK FACTORS SHOULD BE CONSIDERED CAREFULLY IN ADDITION TO THE OTHER INFORMATION CONTAINED OR INCORPORATED BY REFERENCE IN THIS PROSPECTUS BEFORE PURCHASING THE SECURITIES OFFERED HEREBY. IN ADDITION TO THE HISTORICAL INFORMATION CONTAINED HEREIN, THE DISCUSSION IN THIS PROSPECTUS CONTAINS CERTAIN FORWARD-LOOKING STATEMENTS, WITHIN THE MEANING OF SECTION 27A OF THE SECURITIES ACT AND SECTION 27E OF THE EXCHANGE ACT, THAT INVOLVE RISKS AND UNCERTAINTIES, SUCH AS STATEMENTS OF THE COMPANY'S PLANS, OBJECTIVES, EXPECTATIONS AND INTENTIONS. THE CAUTIONARY STATEMENTS MADE IN THIS PROSPECTUS SHOULD BE READ AS BEING APPLICABLE TO ALL RELATED FORWARD-LOOKING STATEMENTS WHEREVER THEY APPEAR IN THIS PROSPECTUS. THE COMPANY'S ACTUAL RESULTS COULD DIFFER MATERIALLY FROM THOSE DISCUSSED HEREIN. FACTORS THAT COULD CAUSE OR CONTRIBUTE TO SUCH DIFFERENCES INCLUDE THOSE DISCUSSED BELOW AS WELL AS THOSE CAUTIONARY STATEMENTS AND OTHER FACTORS SET FORTH ELSEWHERE HEREIN.

DEVELOPMENT STAGE COMPANIES; HISTORY OF OPERATING LOSSES; ACCUMULATED DEFICIT; UNCERTAINTY OF FUTURE PROFITABILITY

The technologies and products under development by the Company are in the research and development stage and no operating revenue, outside of grant revenues, have been generated to date. The Company does not expect to generate any revenues in the near future. As a result, the Company must be evaluated in light of the problems, delays, uncertainties and complications encountered in connection with newly established businesses. The Company has incurred operating losses since its inception. As of June 30, 1997, the Company's working capital and accumulated deficit were $1,988,899 and $11,276,353, respectively. Operating losses have resulted principally from costs incurred in identifying and acquiring the technologies under development, research and development activities and from general and administrative costs. The Company expects to incur significant operating losses over the next several years, primarily due to continuation and expansion of its research and development programs, including preclinical studies and clinical trials for its pharmaceutical products under development. The Company's ability to achieve profitability depends upon its ability to develop pharmaceutical and medical device products, obtain regulatory approval for its proposed products and enter into agreements for product development, manufacturing and commercialization. There can be no assurance that the Company will ever achieve significant revenues or profitable operations from the sale of its proposed products.

AUDITOR'S OPINION

The Company's independent accountants have included an explanatory paragraph in their report on the Company's financial statements at December 31, 1996, included in the Company's 1996 Annual Report on Form 10-KSB, which states that the Company has suffered recurring losses from operations and has limited capital resources, both of which raise substantial doubt about the Company's ability to continue as a going concern.

NEED FOR ADDITIONAL FINANCING; ISSUANCE OF SECURITIES BY THE COMPANY AND ITS SUBSIDIARIES; FUTURE DILUTION

The Company will require, and is constantly considering potential sources for, substantial additional financing to continue its research, to complete its product development and to manufacture and market any products that may be developed. Based solely upon its currently existing consulting, license, sponsored research and employment agreements, the Company currently anticipates that it will spend all of its current cash reserves by late 1999. There can be no assurance, however, that the Company's current cash reserves will not be expended prior to that time. The Company anticipates that further funds may be raised at any time through additional public or private debt or equity financings conducted either by the Company or by one or more of its subsidiaries, or through collaborative ventures entered into between the Company or one or more of its subsidiaries and a corporate partner. There can be no assurance that the

Company will be able to obtain additional financing or that such financing, if available, can be obtained on terms acceptable to the Company. If additional financing is not otherwise available, the Company will be required to modify its business development plans or reduce or cease certain or all of its operations. In such event, holders of securities of the Company will, in all likelihood, lose their entire investment.

Although the Company and each of its subsidiaries will seek to enter into collaborative ventures with corporate sponsors to fund some or all of such activities, as well as to manufacture or market the products which may be successfully developed, neither the Company nor any of its subsidiaries currently has any such arrangements with corporate sponsors, and there can be no assurance that the Company or any of its subsidiaries will be able to enter into such ventures on favorable terms, if at all. In addition, no assurance can be given that the Company or any of its subsidiaries will be able to complete a subsequent private placement or public offering of their securities. Failure by the Company or any of its subsidiaries to enter into such collaborative ventures or to receive additional funding to complete its proposed product development programs either through a public offering or a private placement would have a material adverse effect on the Company.

In the event that the Company obtains any additional funding, such financings may have a dilutive effect on the holders of the Company's securities. In addition, if one or more of the Company's subsidiaries raises additional funds through the issuance and sale of its equity securities, the interest of the Company and its stockholders in such subsidiary or subsidiaries, as the case may be, could be diluted and there can be no assurance that the Company will be able to maintain its majority interest in any or all of its current subsidiaries. In addition, the interest of the Company and its stockholders in each subsidiary will be diluted or subject to dilution to the extent any such subsidiary issues shares or options to purchase shares of its capital stock to employees, directors, consultants and others. In the event that the Company's voting interest in any of its current subsidiaries falls below 50%, the Company may not be able to exercise an adequate degree of control over the affairs and policies of such subsidiary as currently being exercised. In addition, the Company has outstanding currently exercisable Redeemable Warrants and options to purchase 3,826,750 and 699,155 shares of its Common Stock, respectively, at exercise prices ranging from $5.50 to $10.00, and $0.75 to $7.50, respectively, and the exercise price for most of such Redeemable Warrants and options is below the per share price of the Common Stock as currently quoted on Nasdaq. The Company also has outstanding 1,237,200 shares of its Series A Preferred Stock and warrants to purchase 123,720 shares of Series A Preferred Stock, all of which are convertible into shares of the Company's Common Stock. The exercise of such warrants and options or the conversion of the Series A Preferred Stock, if any, may dilute the value of the Common Stock.

NO DEVELOPED OR APPROVED PRODUCTS

To achieve profitable operations, the Company, alone or with others, must successfully develop, obtain regulatory approval for, introduce and market its products under development. The great majority of the preclinical and clinical development work for the products under development of the Company remains to be completed. The Company has not generated, nor is it expected to generate in the near future, any operating revenues. In addition, the Company has no manufacturing or marketing facilities nor any contracts with any commercial manufacturing or marketing entities. No assurance can be given that any of its product development efforts will be successfully completed, that required regulatory approvals will be obtained, or that any such products, if developed and introduced, will be successfully marketed or achieve market acceptance.

TECHNOLOGICAL UNCERTAINTY AND EARLY STAGE OF PRODUCT DEVELOPMENT

The technologies and products which the Company intends to develop are in the early stages of development, require significant further research, development and testing and are subject to the risks of failure inherent in the development of products based on innovative or novel technologies. These risks include the possibility that any or all of the Company's proposed technologies and products will be found

to be ineffective or unsafe, that such technologies and products once developed, although effective, are uneconomical to market, that third parties hold proprietary rights that preclude the Company from marketing such technologies and products or that third parties market superior or equivalent technologies and products.

The Company's agreements with licensors do not contain any representations by the licensors as to the safety or efficacy of the inventions or discoveries covered thereby. The Company is unable to predict whether the research and development activities it is funding will result in any commercially viable products or applications. Further, due to the extended testing required before marketing clearance can be obtained from the United States Food and Drug Administration (the "FDA") or other similar agencies, the Company is not able to predict with any certainty, when, if ever, the Company will be able to commercialize any of its proposed technologies or products.

GOVERNMENT REGULATION; NO ASSURANCE OF PRODUCT APPROVAL

The Company's proposed products and technologies are in very early stages of development. The research, preclinical development, clinical trials, product manufacturing and marketing to be conducted by the Company is subject to regulation by the FDA and similar health authorities in foreign countries. FDA approval of the Company's products, as well as the manufacturing processes and facilities, if any, used to produce such products will be required before such products may be marketed in the U.S. The process of obtaining approvals from the FDA is costly, time consuming and often subject to unanticipated delays. There can be no assurance that approvals of the Company's proposed products, processes or facilities will be granted on a timely basis, or at all. In addition, new government regulations may be established that could delay or prevent regulatory approval of the Company's products under development. Any future failure to obtain or delay in obtaining any such approval will materially and adversely affect the ability of the Company to market its proposed products and the business, financial condition and results of operations of the Company.

Even if regulatory approval of the Company's proposed products is granted, such approval may include significant limitations on indicated uses for which any such products could be marketed. Further, even if such regulatory approvals are obtained, a marketed drug or device and its manufacturer are subject to continued review, and later discovery of previously unknown problems may result in restrictions on such product or manufacturer, including withdrawal of the product from the market. Failure of the Company to obtain and maintain regulatory approval of its proposed products, processes or facilities would have a material adverse effect on the business, financial condition and results of operations of the Company.

The Company's proposed products and technologies may also be subject to certain other federal, state and local government regulations, including, but not limited to, the Federal Food, Drug and Cosmetic Act, the Environmental Protection Act, the Occupational Safety and Health Act and state, local and foreign counterparts to certain of such acts. The Company intends to develop its business to strategically address regulatory needs. However, the Company cannot predict the extent of the adverse effect on its business or the financial and other costs that might result from any government regulations arising out of future legislative, administrative or judicial action.

SECURITIES LAW RESTRICTIONS ON THE EXERCISE OF REDEEMABLE WARRANTS

A holder of Redeemable Warrants will have the right to exercise such Redeemable Warrants for the purchase of shares of Common Stock only if the Company has filed with the Securities and Exchange Commission a current prospectus meeting the requirements of the Securities Act covering the issuance of such shares of Common Stock issuable upon exercise of the Redeemable Warrants and only if the issuance of such shares has been registered or qualified, or is deemed to be exempt from registration or qualification under, the securities laws of the state of residence of the holder of the Redeemable Warrant. The Company has undertaken and intends to file and keep effective and current a prospectus which will permit the purchase and sale of the Common Stock underlying the Redeemable Warrants, but there can be

no assurance that the Company will be able to do so. Although the Company intends to seek to qualify for sale the shares of Common Stock underlying the Redeemable Warrants in those states in which the securities are to be offered, no assurance can be given that such qualification will occur. The Redeemable Warrants may be deprived of any value if a prospectus covering the shares issuable upon the exercise thereof is not kept effective and current or if such underlying shares are not, or cannot be, registered in the applicable states. See "Description of Securities--Redeemable Warrants."

DEPENDENCE ON LICENSE AND SPONSORED RESEARCH AGREEMENTS

The Company depends on license agreements that form the basis of its proprietary technology, and, with the exception of its majority-owned subsidiary, Optex Opthalmologics, Inc., a Delaware corporation ("Optex"), the Company relies on sponsored research agreements for its research and development efforts. The license agreements that have been entered into by the Company typically require the use of due diligence in developing and bringing products to market and the payment of certain milestone amounts that in some instances may be substantial. With the exception of Optex, the Company is also obligated to make royalty payments on the sales, if any, of products resulting from such licensed technology and, is responsible for the costs of filing and prosecuting patent applications and maintaining issued patents. With the exception of Optex, the Company does not currently have laboratory facilities, and, accordingly, certain research and development activities of the Company is intended to be conducted by universities or other institutions pursuant to sponsored research agreements. The sponsored research agreements entered into and contemplated to be entered into by the Company generally require periodic payments on an annual, quarterly or monthly basis.

If the Company does not meet its financial, development or other obligations under either its license agreements or its sponsored research agreements in a timely manner, the Company could lose the rights to its proprietary technology or the right to have the applicable university or institution conduct its research and development efforts. If the rights of the Company under its license or sponsored research agreements are terminated, such termination could have a material adverse effect on the business and research and development efforts of the Company.

UNCERTAINTY REGARDING PATENTS AND PROPRIETARY RIGHTS

The success of the Company will depend in large part on its or its licensors' ability to obtain patents, defend their patents, maintain trade secrets and operate without infringing upon the proprietary rights of others, both in the United States and in foreign countries. The patent position of firms relying upon biotechnology is highly uncertain and involves complex legal and factual questions. To date there has emerged no consistent policy regarding the breadth of claims allowed in biotechnology patents or the degree of protection afforded under such patents. The Company relies on certain United States patents and pending United States and foreign patent applications relating to various aspects of its products and processes. All of these patents and patent applications are owned by third parties and are licensed or sublicensed to the Company. The patent application and issuance process can be expected to take several years and entail considerable expense to the Company, as it is responsible for such costs under the terms of such license agreements. There can be no assurance that patents will issue as a result of any such pending applications or that the existing patents and any patents resulting from such applications will be sufficiently broad to afford protection against competitors with similar technology. In addition, there can be no assurance that such patents will not be challenged, invalidated, or circumvented, or that the rights granted thereunder will provide competitive advantages to the Company. The commercial success of the Company will also depend upon avoiding infringement of patents issued to competitors. A United States patent application is maintained under conditions of confidentiality while the application is pending, so the Company cannot determine the inventions being claimed in pending patent applications filed by its competitors. Litigation may be necessary to defend or enforce the Company's patent and license rights or to determine the scope and validity of others' proprietary rights. Defense and enforcement of patent claims can be expensive and time consuming, even, in those instances in which the outcome is favorable to the

Company, and can result in the diversion of substantial resources from the Company's other activities. An adverse outcome could subject the Company to significant liabilities to third parties, require the Company to obtain licenses from third parties, or require the Company to alter its products or processes, or cease altogether any related research and development activities or product sales, any of which may have a material adverse effect on the Company's business, results of operations and financial condition.

The Company has certain licenses from third parties and in the future may require additional licenses from other parties to develop, manufacture and market commercially viable products effectively. The Company's commercial success will depend in part on obtaining and maintaining such licenses. There can be no assurance that such licenses can be obtained or maintained on commercially reasonable terms, if at all, that the patents underlying such licenses will be valid and enforceable or that the proprietary nature of the patented technology underlying such licenses will remain proprietary.

The Company relies substantially on certain technologies that are not patentable or proprietary and are therefore available to its competitors. The Company also relies on certain proprietary trade secrets and know-how that are not patentable. Although the Company has taken steps to protect its unpatented trade secrets and know-how, in part through the use of confidentiality agreements with its employees, consultants and contractors, there can be no assurance that these agreements will not be breached, that the Company would have adequate remedies for any breach, or that the Company's trade secrets will not otherwise become known or be independently developed or discovered by competitors.

The success of the Company is also dependent upon the skills, knowledge and experience of its scientific and technical personnel. The management and scientific personnel of the Company has been recruited primarily from other scientific companies, pharmaceutical companies and academic institutions. In some cases, these individuals may be continuing research in the same areas with which they were involved prior to joining the Company. Although the Company has not received any notice of any claims and knows of no basis for any claims, it could be subject to allegations of violation of trade secrets and similar claims which could, regardless of merit, be time consuming, expensive to defend, and have a material adverse effect on the Company's business, results of operations and financial condition.

UNCERTAINTY OF PRODUCT PRICING AND REIMBURSEMENT; HEALTH CARE REFORM AND RELATED MEASURES

The levels of revenues and profitability of pharmaceutical and/or biotechnology products and companies may be affected by the continuing efforts of governmental and third party payors to contain or reduce the costs of health care through various means and the initiatives of third party payors with respect to the availability of reimbursement. For example, in certain foreign markets, pricing or profitability of prescription pharmaceuticals is subject to government control. In the United States there have been, and the Company expects that there will continue to be, a number of federal and state proposals to implement similar governmental control. Although the Company cannot predict what legislative reforms may be proposed or adopted or what impact actions taken by federal, state or private payors for health care goods and services in response to any health care reform proposals or legislation may have on its business, the existence and pendency of such proposals could have a material adverse effect on the Company in general. In addition, the Company's ability to commercialize potential pharmaceutical and/or biotechnology products may be adversely affected to the extent that such proposals have a material adverse effect on other companies that are prospective collaborators with respect to any of the Company's product candidates.

In addition, in both the United States and elsewhere, sales of medical products and services are dependent in part on the availability of reimbursement to the consumer from third party payors, such as government and private insurance plans. Third party payors are increasingly challenging the prices charged for medical products and services. If the Company succeeds in bringing one or more products to the market, there can be no assurance that these products will be considered cost effective and that reimbursement to the consumer will be available or will be sufficient to allow the Company to sell its products on a competitive basis.

DEPENDENCE UPON KEY PERSONNEL AND CONSULTANTS

The Company is highly dependent upon its officers and directors, as well as its Scientific Advisory Board members, consultants and collaborating scientists. Atlantic and its subsidiaries have an aggregate of only eight full-time employees, four of whom are officers of Atlantic, and the loss of any of these individuals would have a material adverse effect on the Company. Although Atlantic has entered into employment agreements with each of its officers, such employment agreements do not contain provisions which would prevent such employees from resigning their positions with Atlantic at any time. The Company does not maintain key-man life insurance policies on any of such key personnel. Each of the Company's non-employee directors, advisors and consultants devotes only a portion of his or her time to the Company's business. The loss of certain of these individuals could have a material adverse effect on the Company.

The Company may seek to hire additional personnel. Competition for qualified employees among pharmaceutical and biotechnology companies is intense, and the loss of any of such persons, or the inability to attract, retain and motivate any additional highly skilled employees required for the expansion of the Company's activities could have a material adverse effect on the Company. There can be no assurance that the Company will be able to retain its existing personnel or to attract additional qualified employees.

The Company's scientific advisors are employed on a full time basis by unrelated employers and some have one or more consulting or other advisory arrangements with other entities which may conflict or compete with their obligations to the Company. Inventions or processes discovered by such persons, other than those to which the licenses may relate, those to which the Company is able to acquire licenses for or those which were invented while performing consulting services on behalf of the Company pursuant to a proprietary information agreement or utilizing the Company's facilities, will not become the property of the Company, but will remain the property of such persons or of such persons' full-time employers. Failure to obtain needed patents, licenses or proprietary information held by others could have a material adverse effect on the Company.

COMPETITION

The Company's business is characterized by intensive research efforts and intense competition. Many companies, research institutes, hospitals and universities are working to develop products and technologies in the Company's fields of research. Most of these entities have substantially greater financial, technical, manufacturing, marketing, distribution and other resources than the Company. Certain of such companies have experience in undertaking testing and clinical trials of new or improved products similar in nature to that which the Company is developing. In addition, certain competitors have already begun testing of similar compounds or processes and may introduce such products or processes before the Company. Accordingly, other companies may succeed in developing products earlier than the Company or that are more effective than those proposed to be developed by the Company. Further, it is expected that competition in the Company's fields will intensify. There can be no assurance that the Company will be able to compete successfully in the future.

DEPENDENCE ON OTHERS FOR CLINICAL DEVELOPMENT OF, REGULATORY APPROVALS FOR AND MARKETING OF PHARMACEUTICAL PRODUCTS

The Company currently does not have the resources to directly manufacture, market or sell any of the Company's proposed products and the Company has no current plans to acquire such resources. The Company anticipates that it will, in the future, enter into collaborative agreements with pharmaceutical and/or biotechnology companies for the development of, clinical testing of, seeking of regulatory approval for, manufacturing of, marketing of and commercialization of certain of its proposed products. The Company may in the future grant to its collaborative partners rights to license and commercialize any

products developed under these collaborative agreements, and such rights would limit the Company's flexibility in considering alternatives for the commercialization of such products. Under such agreements, the Company may rely on its respective collaborative partners to conduct research efforts and clinical trials on, obtain regulatory approvals for and manufacture, market and commercialize certain of its products. The Company expects that the amount and timing of resources devoted to these activities generally will be controlled by each such individual partner. The inability of the Company to acquire such third party manufacturing, distribution, marketing and selling arrangements for such anticipated products would have a material adverse effect on the Company's business. There can be no assurance that the Company will be able to enter into any arrangements for the manufacturing, marketing and selling of its products, or that, if such arrangements are entered into, such future partners will be successful in commercializing products or that the Company will derive any revenues from such arrangements.

RISK OF PRODUCT LIABILITY; NO INSURANCE

Should the Company develop and market any products, the marketing of such products, through third-party arrangements or otherwise, may expose the Company to product liability claims. The Company presently does not carry product liability insurance. Upon clinical testing or commercialization of the Company's proposed products, certain of the licensors require that the Company obtain product liability insurance. There can be no assurance that the Company will be able to obtain such insurance or, if obtained, that such insurance can be acquired in sufficient amounts to protect the Company against such liability or at a reasonable cost. The Company is required to indemnify the Company's licensors against any product liability claims incurred by them as a result of the products developed by the Company. None of the Company's licensors has made, and are not expected to make, any representations as to the safety or efficacy of the inventions covered by the licenses or as to any products which may be made or used under rights granted therein or thereunder.

CONTROL BY EXISTING STOCKHOLDERS

Two principal stockholders of the Company beneficially own approximately 27% of the outstanding shares of Common Stock. Accordingly, such holders, if acting together, may have the ability to exert significant influence over the election of the Company's Board of Directors and other matters submitted to the Company's stockholders for approval. The voting power of these holders may discourage or prevent any proposed takeover of the Company.

NO ASSURANCE OF IDENTIFICATION OF ADDITIONAL PROJECTS

The Company is engaged in the development and commercialization of biomedical and pharmaceutical products and technologies. From time to time, if the Company's resources allow, the Company may explore the acquisition and subsequent development and commercialization of additional biomedical and pharmaceutical products and technologies. However, there can be no assurance that the Company will be able to identify any additional products or technologies and, even if suitable products or technologies are identified, the Company does not expect to have sufficient resources to pursue any such products or technologies in the foreseeable future.

CERTAIN INTERLOCKING RELATIONSHIPS; POTENTIAL CONFLICTS OF INTEREST

Two of the four members of the Board of Directors and one of the officers of the Company are full-time or part-time officers of Paramount Capital Investments, LLC a New York-based merchant banking and venture capital firm specializing in biotechnology companies ("Investments"). In the regular course of its business, Investments identifies, evaluates and pursues investment opportunities in biomedical and pharmaceutical products, technologies and companies. Generally, Delaware corporate law requires that any transactions between the Company and any of its affiliates be on terms that, when taken as a whole, are substantially as favorable to the Company as those then reasonably obtainable from a person who is

not an affiliate in an arms-length transaction. Nevertheless, neither Investments nor any such directors are obligated pursuant to any agreement or understanding with the Company to make any additional products or technologies available to the Company, nor can there be any assurance, and the Company does not expect and security holders should not expect, that any biomedical or pharmaceutical product or technology identified by Investments or any such directors in the future will be made available to the Company. In addition, certain of the officers and directors of the Company may from time to time serve as officers or directors of other biopharmaceutical or biotechnology companies. There can be no assurance that such other companies will not, in the future, have interests in conflict with those of the Company.

The Company has entered into several agreements with Investments pursuant to which Investments provides financial advisory services to the Company.

Michael S. Weiss, the Company's Secretary, is a Senior Managing Director of Paramount Capital, Inc., the placement agent for the Company's private placement of its Series A Preferred Stock (the "Placement Agent"). See "Recent Developments." Lindsay A. Rosenwald, M.D., a principal stockholder of the Company, is the President and sole stockholder of the Placement Agent and of Investments.

RISKS ASSOCIATED WITH LITIGATION

In November 1996 and February 1997, related complaints alleging claims under the Securities Exchange Act of 1934, as amended, and common law causes of action were filed against the Company in the United States District Court for the District of Delaware and the Delaware Chancery Court, respectively. The parties have reached a settlement with respect to such complaints, pursuant to which an existing stockholder of the Company owning greater than five percent of the Company's capital stock transferred to plaintiff an aggregate of 5,000 shares of the Company's Common Stock.

NO DIVIDENDS

The Company has not paid any cash dividends on its Common Stock since its formation and does not anticipate paying any cash dividends in the foreseeable future. Management anticipates that all earnings and other resources of the Company, if any, will be retained by the Company for investment in its business.

POSSIBLE DELISTING FROM NASDAQ AND MARKET ILLIQUIDITY

Although the Common Stock is quoted on Nasdaq, continued inclusion of such securities on Nasdaq will require that (i) the Company maintain at least $2,000,000 in total assets and $1,000,000 in capital and surplus, (ii) the minimum bid price for the Common Stock be at least $1.00 per share, (iii) the public float consist of at least 100,000 shares of Common Stock, valued in the aggregate at more than $200,000, (iv) the Common Stock have at least two active market makers and (v) the Common Stock be held by at least 300 holders. If the Company is unable to satisfy such maintenance requirements, the Company's securities may be delisted from Nasdaq. In such event, trading, if any, in the Common Stock would thereafter be conducted in the over-the-counter market in the "pink sheets" or the National Association of Securities Dealers' "Electronic Bulletin Board." Consequently, the liquidity of the Company's securities could be materially impaired, not only in the number of securities that can be bought and sold at a given price, but also through delays in the timing of transactions and reduction in security analysts' and the media's coverage of the Company, which could result in lower prices for the Company's securities than might otherwise be attained and could also result in a larger spread between the bid and asked prices for the Company's securities.

In addition, if the Common Stock is delisted from trading on Nasdaq and the trading price of the Common Stock is less than $5.00 per share, trading in the Common Stock would also be subject to the requirements of Rule 15g-9 promulgated under the Exchange Act. Under such rule, broker/dealers who recommended such low-priced securities to persons other than established customers and accredited investors must satisfy special sales practice requirements, including a requirement that they make an

individualized written suitability determination for the purchaser and receive the purchaser's written consent prior to the transaction. The Securities Enforcement Remedies and Penny Stock Reform Act of 1990 also requires additional disclosure in connection with any trades involving a stock defined as a penny stock (generally, according to recent regulations adopted by the Commission, any equity security not traded on an exchange or quoted on Nasdaq that has a market price of less than $5.00 per share, subject to certain exceptions), including the delivery, prior to any penny stock transaction, of a disclosure schedule explaining the penny stock market and the risks associated therewith. Such requirements could severely limit the market liquidity of the Common Stock. There can be no assurance that the Common Stock will not be delisted or treated as penny stock.

LIQUIDITY OF INVESTMENT

The Company's securities are traded on Nasdaq and the Company's securities lack the liquidity of securities traded on the principal trading markets. Accordingly, an investor may be unable to promptly liquidate an investment in the Common Stock.

POSSIBLE VOLATILITY OF STOCK PRICE

The market price of the Company's securities, like the stock prices of many publicly traded biotechnology and smaller pharmaceutical companies, has been and may continue to be highly volatile.

ENVIRONMENTAL REGULATION

In connection with its research and development activities, the Company is subject to federal, state and local laws, rules, regulations and policies governing the use, generation, manufacture, storage, air emission, effluent discharge, handling and disposal of certain materials and wastes. Although the Company believes that it has complied with these laws and regulations in all material respects and has not been required to take any action to correct any noncompliance, there can be no assurance that the Company will not be required to incur significant costs to comply with environmental and health and safety regulations in the future.

POSSIBLE ADVERSE EFFECT OF SHARES ELIGIBLE FOR FUTURE SALE

Future sales by existing stockholders could adversely affect the prevailing market price of the Company's Common Stock. The outstanding shares of the Company's Common Stock are all freely tradeable, subject to volume and other restrictions imposed by Rule 144 under the Securities Act with respect to sales by affiliates of the Company. An 18-month restriction on transfer applicable to the shares of Common Stock now owned or hereafter acquired by the Company's officers, directors and certain stockholders expired on June 14, 1997. Sales of substantial amounts of Common Stock may have an adverse effect on the market price of the Company's Common Stock.

In connection with the Company's initial public offering, the Company granted to Joseph Stevens & Company, L.P., the underwriter that managed the Company's initial public offering (the "Underwriter"), warrants to purchase from the Company 165,000 units, each consisting of one share of Common Stock and one redeemable warrant to purchase one share of Common Stock at an initial exercise price of $6.60 per unit. Such warrants are exercisable during the four year period commenced December 13, 1996. The redeemable warrants issuable upon exercise of these warrants have an exercise price of $6.05 per share. As long as the warrants remain unexercised, the terms under which the Company could obtain additional capital may be adversely affected. The Company granted to holders of the warrants issued to such Underwriter the right on two occasions (one at the expense of the Company) to file a registration statement under the Securities Act covering the securities underlying such warrants and the additional right to include such securities in any registration filed by the Company under the Securities Act.

No prediction can be made as to the effect, if any, that sales of Units, Redeemable Warrants and/or Common Stock or the availability of such securities for sale will have on the market prices prevailing from time to time for the Units, the Redeemable Warrants and/or the Common Stock. Nevertheless, the possibility that substantial amounts of such securities may be sold in the public market may adversely affect prevailing market prices for the Company's equity securities and could impair the Company's ability to raise capital in the future through the sale of equity securities.

ANTITAKEOVER EFFECTS OF PROVISIONS OF THE CERTIFICATE OF INCORPORATION AND DELAWARE LAW

Atlantic's Certificate of Incorporation authorizes the issuance of shares of "blank check" Preferred Stock. The Board of Directors has the authority to issue the Preferred Stock in one or more series and to fix the relative rights, preferences and privileges and restrictions thereof, including dividend rights, dividend rates, conversion rights, voting rights, terms of redemption, redemption prices, liquidation preferences and the number of shares constituting any series or the designation of such series. The issuance of Preferred Stock may have the effect of delaying, deferring or preventing a change in control of the Company without further action by the stockholders of the Company. The issuance of Preferred Stock with voting and conversion rights may adversely affect the voting power of the holders of the Common Stock, including the loss of voting control to others.

The Company is subject to Section 203 of the Delaware General Corporation Law which, subject to certain exceptions, prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the date that such stockholder became an interested stockholder. In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by such entity or person. The foregoing provisions could have the effect of discouraging others from making tender offers for the Company's shares and, as a consequence, they also may inhibit fluctuations in the market price of the Company's shares that could result from actual or rumored takeover attempts. Such provisions also may have the effect of preventing changes in the management of the Company.

RECENT DEVELOPMENTS

On May 22, 1997 and August 7, 1997, the Company completed private placements (the "Private Placement") of an aggregate of 123.72 units, each unit consisting of 10,000 shares of the Company's Series A Convertible Preferred Stock (the "Series A Preferred"), for gross proceeds of approximately $12,372,000. Paramount Capital, Inc., a New York-based merchant and investment banking firm specializing in the biotechnology industry ("Paramount" or the "Placement Agent"), acted as placement agent for the Private Placement. Michael S. Weiss, the Company's Secretary, is a Senior Managing Director of the Placement Agent, and Lindsay A. Rosenwald, M.D., a principal stockholder of the Company, is the President and sole stockholder of the Placement Agent.

In connection with the Private Placement, the Company paid to the Placement Agent compensation in the form of cash commissions and a non-accountable expense allowance equal to nine percent and four percent, respectively, of the gross proceeds received by the Company from the sale of the units. In addition, the Company agreed to sell to Paramount or its designees, for $0.001 per share, warrants (the "Placement Warrants") to purchase an aggregate of 123,720 shares of Series A Preferred. For a description of the terms of the Series A Preferred issued in the Private Placement and of the Placement Warrants, see "Description of Securities--Preferred Stock--Series A Convertible Preferred Stock" and "Description of Securities--Placement Warrants."

Also in connection with the Private Placement, the Company and the Placement Agent agreed to enter into a financial advisory agreement (the "Agreement") pursuant to which the Placement Agent will act as the Company's non-exclusive financial advisor. Such engagement will provide that the Placement Agent receive (i) a monthly retainer of $4,000 commencing on the first of the month following the date of the Agreement (with a minimum engagement of 24 months), (ii) out-of-pocket expenses incurred in connection with services performed under the Agreement and (iii) standard success fees in the event the Placement Agent assists the Company in connection with certain financing and strategic transactions.

SELLING SECURITYHOLDERS

The following table sets forth certain information, as of the date hereof, with respect to the number of shares of Common Stock beneficially owned by each of the Selling Securityholders and as adjusted to give effect to the sale of the Shares offered hereby. Beneficial ownership of the shares offered hereby by such Selling Securityholders will depend on the number of shares sold by each Selling Securityholder in this offering. The Shares are being registered to permit public secondary trading of the Shares, and the Selling Securityholders may offer the Shares for resale from time to time. Except as indicated in this Prospectus, none of the Selling Securityholders has had a material relationship with the Company within the past three years other than as a result of the ownership of the Shares or other securities of the Company. See "Plan of Distribution."

The Shares offered by this Prospectus may be offered from time to time by the Selling Securityholders named below:

NAME AND ADDRESS OF NUMBER OF SELLING SECURITYHOLDER	NUMBER OF SHARES OWNED PRIOR TO OFFERING(1)		NUMBER OF SHARES BEING OFFERED	OWNERSHIP AFTER OFFERING(1)	
	NUMBER OF SHARES	PERCENT		NUMBER OF SHARES	PERCENT
Dreyfus Growth and Value Funds, Inc., a Maryland corporation,--Dreyfus Aggressive Growth Fund(2) 200 Park Avenue New York, NY 10166	140,000	4.64%	140,000	0	0%
Premier Strategic Growth Fund(2), a Massachusetts Business Trust (2) 200 Park Avenue New York, NY 10166	110,000	3.65%	110,000	0	0%
TOTAL			250,000		

(1) Percentage of beneficial ownership is calculated assuming 3,016,920 shares of Common Stock were outstanding as of June 30, 1997. Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission and generally includes voting or investment power with respect to securities. Shares of Common Stock subject to options or warrants currently exercisable or convertible, or exercisable or convertible within 60 days of June 30, 1997, are deemed outstanding for computing the percentage of the person holding such option or warrant but are not deemed outstanding for computing the percentage of any other person. Except as indicated in the footnotes to this table and pursuant to applicable community property laws, the persons named in the table have sole voting and investment power with respect to all shares of Common Stock beneficially owned.

(2) The Dreyfus Corporation serves as the investment advisor for each of Dreyfus Growth and Value Funds, Inc., a Maryland corporation,--Dreyfus Aggressive Growth Fund and Premier Strategic Growth Fund, a Massachusetts Business Trust, and as such may be considered the beneficial owner of the shares of Common Stock held by such funds.

PLAN OF DISTRIBUTION

The Shares offered by the Selling Securityholders are not being underwritten. The Company will receive no proceeds from the sale of the Shares. The Shares offered hereby may be sold by the Selling Securityholders from time to time in transactions (which may include block transactions) in the over-the-counter market, in negotiated transactions, or a combination of such methods of sale, at fixed prices that may be changed, at market prices prevailing at the time of sale, or at negotiated prices. The Selling Securityholders may effect such transactions by selling the Shares directly to purchasers or through broker-

dealers that may act as agents or principals. Such broker-dealers may receive compensation in the form of discounts, concessions or commissions from the Selling Securityholders and/or the purchasers of the Shares for whom such broker-dealers may act as agents or to whom they sell as principals, or both (which compensation as to a particular broker-dealer might be in excess of customary commissions).

The Dreyfus Corporation serves as the investment advisor for each of Dreyfus Growth and Value Funds, Inc., a Maryland corporation,--Dreyfus Aggressive Growth Fund ("Value Fund") and Premier Strategic Growth Fund, a Massachusetts business trust ("Growth Fund"), and as such may be considered the beneficial owner of the shares of Common Stock held by such funds. Value Fund and Growth Fund together own an aggregate of eight percent of the Company's capital stock, and therefore either fund or The Dreyfus Corporation may be deemed affiliates of the Company. Other than the foregoing, there are no material relationships between any of the Selling Securityholders and the Company or any of its predecessors or affiliates.

The Selling Securityholders and any broker-dealers that act in connection with the sale of the Shares as principals may 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 such securities as principals might be deemed to be underwriting discounts and commissions under the Securities Act. The Selling Securityholders may agree to indemnify any agent, dealer or broker-dealer that participates in transactions involving sales of such securities against certain liabilities, including liabilities arising under the Securities Act. The Company will not receive any proceeds from the sales of the Shares. Sales of the Shares by the Selling Securityholders, or even the potential of such sales, would likely have an adverse effect on the market price of the Company's outstanding Units, Common Stock and Redeemable Warrants.

At the time a particular offer of securities is made by or on behalf of the Selling Securityholder, to the extent required, a prospectus will be distributed which will set forth the number of securities being offered and the terms of the offering, including the name or names of any underwriters, dealers or agents, if any, the purchase price paid by any underwriter for securities purchased from the Selling Securityholder and any discounts, commissions or concessions allowed or reallowed or paid to dealers.

In order to comply with the securities laws of certain states, if applicable, the Shares will be sold in such jurisdictions only through registered or licensed brokers or dealers. In addition, in certain states the Shares may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the Shares may not simultaneously engage in market making activities with respect to the securities of the Company for a period of two business days prior to the commencement of such distribution. In addition and without limiting the foregoing, each Selling Securityholder will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including, without limitation, the Rules promulgated under Regulation M, which provisions may limit the timing of purchases and sales of shares of the Shares by the Selling Securityholders.

The Shares were originally issued to the Selling Securityholders pursuant to an exemption from the registration requirements of the Securities Act provided by Section 4(2) thereof. The Company agreed to register the Shares under the Securities Act and to indemnify and hold such Selling Securityholders harmless against certain liabilities under the Securities Act that could arise in connection with the sale by such Selling Securityholders of the Shares. The Company has agreed to pay all reasonable fees and expenses incident to the preparation and filing of this Prospectus and the Registration Statement on Form S-3 of which it is a part.

DESCRIPTION OF SECURITIES

The authorized capital stock of the Company consists of 80,000,000 shares of Common Stock and 50,000,000 shares of Preferred Stock.

UNITS

As of June 30, 1997, there were 1,872,750 Units outstanding. Each Unit consists of one share of Common Stock and one Redeemable Warrant. The securities included in each Unit trade separately.

COMMON STOCK

As of June 30, 1997, there were 3,016,920 shares of Common Stock outstanding, which include the shares of Common Stock composing the Units. In addition, as of June 30, 1997, there were outstanding options to purchase 699,155 shares of Common Stock at exercise prices ranging from $0.001 to $7.50 per share. Such options expire on various dates through August 15, 2006.

The holders of Common Stock are entitled to one vote per share on all matters to be voted upon by the stockholders. Subject to preferences that may be applicable to any outstanding Preferred Stock, the holders of Common Stock are entitled to receive ratably such dividends, if any, as may be declared from time to time by the Company's Board of Directors out of funds legally available therefor. In the event of the liquidation, dissolution or winding up of the Company, the holders of Common Stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of Preferred Stock, if any, then outstanding. The Common Stock has no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the Common Stock. All outstanding shares of Common Stock are fully paid and nonassessable, and the shares of Common Stock to be issued upon completion of the Offering will be fully paid and nonassessable.

PREFERRED STOCK

The Company's Certificate of Incorporation authorizes 50,000,000 shares of Preferred Stock. The Company's Board of Directors has the authority to issue Preferred Stock in one or more series and to fix the relative rights, preferences and privileges and restrictions thereof, including dividend rights, dividend rates, conversion rights, voting rights, terms of redemption, redemption prices, liquidation preferences and the number of shares constituting any series or the designation of such series. The issuance of Preferred Stock may have the effect of delaying, deferring or preventing a change in control of the Company without further action by the stockholders of the Company. The issuance of Preferred Stock with voting and conversion rights may adversely affect the voting power of the holders of the Common Stock, including the loss of voting control to others. See "Risk Factors--Need for Additional Financing; Issuance of Securities by the Operating Companies; Future Dilution" and "--Antitakeover Effects of Provisions of the Certificate of Incorporation and Delaware Law."

SERIES A CONVERTIBLE PREFERRED STOCK

The Company has designated 1,375,000 shares of Preferred Stock as "Series A Convertible Preferred Stock" (the "Series A Preferred"). As of August 15, 1997, there were outstanding 1,237,200 shares of Series A Preferred and warrants to purchase 123,720 shares of Series A Preferred. The following is a brief summary of the rights, preferences and privileges of the Series A Preferred. A complete description of the rights, preferences and privileges of the Series A Preferred is set forth in the Company's Certificate of Designation with respect thereto.

DIVIDENDS. Holders of Series A Preferred will be entitled to receive dividends as, when and if declared by the Board of Directors. Commencing on August 7, 1998, holders of Series A Preferred will be entitled to a cumulative payment-in-kind dividend (the "PIK Dividend") payable in additional shares of

Series A Preferred at the rate of 10% per annum of the Dividend Base Amount, payable semi-annually, unless their shares of Series A Preferred have previously been converted into Common Stock. The Dividend Base Amount shall be $13.00 plus accrued and unpaid dividends (subject to antidilution adjustment), and represents a premium to the holders of Series A Preferred of 30% over the $10.00 per share purchase price. The Company shall not declare any dividend or distribution on any other capital stock of the Company unless and until a special dividend or distribution of $13.00 per share (subject to appropriate adjustment to reflect any stock split, combination, reclassification or reorganization of the Series A Preferred) has been declared and paid on the Series A Preferred. No dividend or distribution, as the case may be, shall be declared or paid on any junior stock unless the same dividend is paid to holders of Series A Preferred. The Company does not intend to pay cash dividends on the Series A Preferred or the underlying Common Stock for the foreseeable future.

CONVERSION. Each share of Series A Preferred is convertible at the option of the holder thereof, at any time after the issuance thereof, into shares of Common Stock initially at a conversion price equal to $4.72. The conversion price is subject to adjustment upon the occurrence of certain events, including the issuance of Common Stock at a per share price less than the conversion price, or the occurrence of a merger, reorganization, consolidation, reclassification, stock dividend or stock split which will result in an increase or decrease in the number of Shares of Common Stock outstanding. Unless converted earlier, the Company may, at any time on or after August 7, 1998, at its option, cause the conversion of the Series A Preferred, in whole or in part, on a PRO RATA basis, into shares of Common Stock at the conversion price in effect at that time if the closing bid price of the Common Stock has exceeded 200% of the then applicable conversion price for at least 20 trading days in any 30 consecutive trading day period ending three days prior to the date of notice of conversion.

LIQUIDATION PREFERENCE. Upon (i) a liquidation, dissolution or winding up of the Company, whether voluntary or involuntary, (ii) a sale or other disposition of all or substantially all of the assets of the Company or (iii) any consolidation, merger, combination, reorganization or other transaction in which the Company is not the surviving entity or in which the shares of Common Stock constituting in excess of 50% of the voting power of the Company are exchanged for or changed into other stock or securities, cash and/ or any other property, after payment or provision for payment of the debts and other liabilities of the Company, the holders of the Series A Preferred then outstanding will first be entitled to receive, PRO RATA (on the basis of the number of shares of the Series A Preferred then outstanding), and in preference to the holders of the Common Stock and any capital stock of the Company, an amount per share equal to $13.00 plus accrued but unpaid dividends, if any, which in certain circumstances may be paid in securities of another corporation.

VOTING RIGHTS. The holders of shares of Series A Preferred have the right at all meetings of stockholders of the Company to that number of votes equal to the number of shares of Common Stock issuable upon conversion of the Series A Preferred at the record date for determination of the stockholders entitled to vote on such matters or, if no such record date is established, at the date such vote is taken. So long as at least 50% of the shares of Series A Preferred remain outstanding, the affirmative vote or consent of the holders of 66.67% of the shares of Series A Preferred shall be necessary to permit, effect or validate any one or more of the following: (i) the amendment of the Certificate of Incorporation or Bylaws of the Company if it adversely affects the relative rights of the holders of the Series A Preferred, (ii) the declaration or payment of a dividend on any securities of the Company other than the Series A Preferred or the authorization of the repurchase of any securities of the Company, (iii) the issuance of any security ranking senior to or on a parity with the Series A Preferred with respect to (A) a liquidation event, (B) the payment of dividends or (C) voting rights (except class voting rights required by law), (iv) any liquidation, dissolution or sale of substantially all of the assets of the Company, (v) the incorporation of any subsidiary company and (vi) the issuance of any debt securities or incurrence of indebtedness for borrowed money in excess of $1,000,000, PROVIDED, HOWEVER, that any issuance of debt securities or incurrence of indebtedness

for borrowed money in excess of $500,000 shall be approved by a supermajority of the Board of Directors of the Company.

REDEEMABLE WARRANTS

The Redeemable Warrants were issued in the Company's initial public offering pursuant to a warrant agreement (the "Redeemable Warrant Agreement") among Joseph Stevens & Company, L.P. (the "Underwriter"), the Company and Continental Stock Transfer & Trust Company (the "Warrant Agent"), and are evidenced by warrant certificates in registered form. The following summary is qualified in its entirety by the text of the Redeemable Warrant Agreement, a copy of which has been filed as an exhibit to the Registration Statement.

Each Redeemable Warrant entitles the registered holder thereof to purchase one share of Common Stock at a price of $5.50 per share, subject to adjustment, commencing on the date of issuance. The Redeemable Warrants expire on December 13, 2000 (the "Expiration Date"). As of December 14, 1996 the Redeemable Warrants are subject to redemption by the Company at a redemption price of $0.05 per Redeemable Warrant on 30 days' prior written notice, provided that the average closing bid price (or last sales price) of the Common Stock as reported on Nasdaq (or on such exchange on which the Common Stock is then traded) equals or exceeds $8.25 per share, subject to adjustment, for any 20 trading days within a period of 30 consecutive trading days ending on the fifth trading day prior to the date of notice of redemption. The holder of a Redeemable Warrant will lose his right to purchase if such right is not exercised prior to redemption by the Company on the date for redemption specified in the Company's notice of redemption or any later date specified in a subsequent notice. Notice of redemption by the Company shall be given by first class mail to the holders of the Redeemable Warrants at their addresses set forth in the Company's records.

The exercise price of the Redeemable Warrants and the number and kind of shares of Common Stock or other securities and property to be obtained upon exercise of the Redeemable Warrants are subject to adjustment in certain circumstances including a stock split of, or stock division, combination or recapitalization of, the Common Stock. Additionally, an adjustment would be made upon the consolidation of the Company with or the merger of the Company with or into another corporation (other than a consolidation or merger which does not result in any reclassification or change of the outstanding Common Stock) so as to enable Redeemable Warrant holders to purchase the kind and number of shares of stock or other securities or property (including cash) receivable in such event by a holder of the number of shares of Common Stock that might otherwise have been purchased upon exercise of such Redeemable Warrant. No adjustment for cash dividends, if any, will be made upon exercise of the Redeemable Warrants.

The exercise price of the Redeemable Warrants bears no relation to any objective criteria of value and should not be regarded as an indication of the future market price of the securities offered hereby. The Redeemable Warrants do not confer upon the holder any voting or any other rights of a stockholder of the Company. Upon notice to the Redeemable Warrant holders, the Company has the right to reduce the exercise price or extend the expiration date of the Redeemable Warrants.

The Redeemable Warrants may be exercised upon surrender of the Redeemable Warrant certificate on or prior to the expiration date (or earlier redemption date) of such Redeemable Warrant at the offices of the Warrant Agent, with the form of "Election to Purchase" on the reverse side of the Redeemable Warrant certificate completed and executed as indicated, accompanied by payment of the full exercise price (by cashier's or certified check payable to the order of the Warrant Agent) for the number of Redeemable Warrants being exercised. The Redeemable Warrants will become void and of no value upon the Expiration Date. A holder may sell the Redeemable Warrants instead of exercising them. There can be no assurance, however, that a market for the Redeemable Warrants will continue. If a prospectus covering the shares of Common Stock issuable upon the exercise of Redeemable Warrants is not kept effective and current or if such shares are not qualified for sale in certain states, holders of Redeemable Warrants

desiring to exercise the Redeemable Warrants will have no choice but either to sell such Redeemable Warrants or let them expire. See "Risk Factors--Securities Law Restrictions on the Exercise of Redeemable Warrants."

The Redeemable Warrant Agreement provides that it may be amended at any time with the written consent of registered holders representing at least 66 2/3% of the Redeemable Warrants then outstanding.

UNDERWRITER'S WARRANTS

In connection with the Company's initial public offering, the Company sold to the Underwriter, for nominal consideration, Underwriter's Warrants to purchase from the Company 165,000 Units. The Underwriter's Warrants are initially exercisable at a price equal to $6.60 and may be exercised at any time during the four year period commenced December 14, 1996. The shares of Common Stock and Redeemable Warrants issuable upon exercise of the Underwriter's Warrants are identical to those offered to the public pursuant to the Unit Offering, except that the Redeemable Warrants issuable upon exercise of the Underwriter's Warrants have an exercise price of $6.05 per share and such Redeemable Warrants have not been approved for quotation on Nasdaq. The Underwriter's Warrants contain anti-dilution provisions providing for adjustment of the number of warrants and exercise price under certain circumstances. The Underwriter's Warrants grant to the holders thereof certain rights of registration for the securities issuable upon exercise of the Underwriter's Warrants.

PLACEMENT WARRANTS

In connection with the Private Placement, the Company sold to the Placement Agent, for nominal consideration, Placement Warrants to purchase from the Company 123,720 shares of Series A Preferred. The Placement Warrants are initially exercisable at a price equal to $11.00 per share and may be exercised at any time during the 10-year period commencing February 7, 1998. The rights, preferences and privileges of the shares of Series A Preferred issuable upon exercise of the Placement Warrants are identical to those offered to the participants in the Private Placement. The Placement Warrants contain anti-dilution provisions providing for adjustment of the number of securities underlying the Series A Preferred issuable upon exercise of the Placement Warrants and the exercise price of the Placement Warrants under certain circumstances. The Placement Warrants are not redeemable and will remain outstanding, to the extent not exercised, notwithstanding any mandatory redemption or conversion of the Series A Preferred underlying the Placement Warrants. The Placement Warrants grant to the holders thereof certain rights of registration for the securities issuable upon exercise of the Placement Warrants. See "--Registration Rights."

REGISTRATION RIGHTS

In connection with the Private Placement, the Company has agreed to use its best efforts to (i) on or prior to September 8, 1997, file with the Commission a registration statement with respect to the Common Stock issuable upon conversion of the Series A Preferred, including the Series A Preferred issuable upon exercise of the Placement Warrants, and (ii) cause such registration statement to remain effective until the date the holders of the Series A Preferred have completed the distribution of such securities or until such earlier time as such shares are no longer, by reason of Rule 144(k) promulgated under the Securities Act, required to be registered for the sale thereof by such holders.

In addition to the Series A Preferred issued in the Private Placement, the Company may include in such registration statement up to an additional 788,951 shares of Common Stock covered by piggyback registration rights granted by the Company to Lindsay A. Rosenwald, M.D., a principal stockholder of the Company and the President and sole stockholder of the Placement Agent and of VentureTek, L.P., a principal stockholder of the Company.

ANTITAKEOVER EFFECTS OF PROVISIONS OF DELAWARE LAW

The Company is subject to Section 203 of the Delaware General Corporation Law ("Section 203"), which, subject to certain exceptions, prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the date that such stockholder became an interested stockholder, unless: (i) prior to such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder; (ii) upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding those shares owned (x) by persons who are directors and also officers and (y) by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or (iii) on or subsequent to such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

Section 203 defines business combination to include: (i) any merger or consolidation involving the corporation and the interested stockholder; (ii) any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder; (iii) subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder; (iv) any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or (v) the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation. In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by such entity or person.

TRANSFER AGENT, REGISTRAR AND WARRANT AGENT

The Transfer Agent and Registrar for the Shares is Continental Stock Transfer & Trust Company ("CST&T"), 2 Broadway, New York, New York 10004. CST&T can be reached at (212) 509-4000. CST&T is also the Warrant Agent for the Redeemable Warrants.

LEGAL MATTERS

Certain legal matters with respect to the validity of the Shares offered hereby are being passed upon for the Company by Brobeck, Phleger & Harrison LLP, Palo Alto, California.

EXPERTS

The consolidated financial statements of the Company appearing in the Company's Annual Report on Form 10-KSB for the year ended December 31, 1996, for each of the years in the three-year period ended December 31, 1996, and for the period from July 13, 1993 (inception) to December 31, 1996, have been incorporated by reference herein in reliance upon the report of KPMG Peat Marwick LLP ("KPMG"), independent certified public accountants, and upon the authority of such firm as experts in accounting and auditing. The report of KPMG covering the consolidated financial statements referred to above contains an explanatory paragraph that states that the Company has suffered recurring losses from operations and has limited capital resources which raise substantial doubt about its ability to continue as a going concern. The consolidated financial statements do not include any adjustments that might result from the outcome of that uncertainty.

NO DEALER, SALESPERSON OR ANY OTHER PERSON HAS BEEN AUTHORIZED TO GIVE ANY INFORMATION OR TO MAKE ANY REPRESENTATIONS OTHER THAN THOSE CONTAINED IN THIS PROSPECTUS, AND, IF GIVEN OR MADE, SUCH INFORMATION OR REPRESENTATIONS MUST NOT BE RELIED UPON AS HAVING BEEN AUTHORIZED BY THE COMPANY. NEITHER THE DELIVERY OF THIS PROSPECTUS NOR ANY SALE MADE HEREUNDER SHALL, UNDER ANY CIRCUMSTANCES, CREATE ANY IMPLICATION THAT THERE HAS BEEN NO CHANGE IN THE AFFAIRS OF THE COMPANY OR THAT THE INFORMATION CONTAINED HEREIN IS CORRECT AS OF ANY TIME SUBSEQUENT TO THE DATE HEREOF. THIS PROSPECTUS DOES NOT CONSTITUTE AN OFFER TO SELL OR A SOLICITATION FOR AN OFFER TO BUY ANY SECURITIES OFFERED HEREBY BY ANYONE IN ANY JURISDICTION IN WHICH SUCH OFFER OR SOLICITATION IS NOT AUTHORIZED OR IN WHICH THE PERSON MAKING SUCH OFFER OR SOLICITATION IS NOT QUALIFIED TO DO SO OR TO ANYONE TO WHOM IT IS UNLAWFUL TO MAKE SUCH OFFER OR SOLICITATION.

TABLE OF CONTENTS

UNTIL DECEMBER 8, 1997 (25 DAYS AFTER THE DATE OF THIS PROSPECTUS), ALL DEALERS EFFECTING TRANSACTIONS IN THE REGISTERED SECURITIES OFFERED HEREBY, WHETHER OR NOT PARTICIPATING IN THIS DISTRIBUTION, MAY BE REQUIRED TO DELIVER A PROSPECTUS. THIS IS IN addition TO THE OBLIGATION OF DEALERS TO DELIVER A PROSPECTUS WHEN ACTING AS UNDERWRITERS AND WITH RESPECT TO THEIR UNSOLD ALLOTMENTS OR SUBSCRIPTIONS.

ATLANTIC
PHARMACEUTICALS, INC.

250,000 SHARES
COMMON STOCK

PROSPECTUS

NOVEMBER 12, 1997