TRIANGLE PHARMACEUTICALS INC

Form S-3/A December 05, 2001

AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON DECEMBER 5, 2001

REGISTRATION NO. 333-71808

SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

AMENDMENT NO. 1

TO

FORM S-3

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

TRIANGLE PHARMACEUTICALS, INC. (Exact name of Registrant as Specified in Its Charter)

Delaware

(State or Other Jurisdiction of Incorporation or Organization)

56-1930728 (I.R.S. Employer Identification No.)

4 University Place, 4611 University Drive, Durham, North Carolina, 27707 (919) 493-5980

(Address, Including Zip Code, And Telephone Number, Including Area Code, Of Registrant's Principal Executive Offices)

David W. Barry, M.D.

Chairman and Chief Executive Officer

TRIANGLE PHARMACEUTICALS, INC.

4 University Place,

4611 University Drive,

Durham, North Carolina 27707

(919) 493-5980

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent For Service)

COPY TO:

Rachel Mandell, Esq. Senior Corporate Counsel

TRIANGLE PHARMACEUTICALS, INC.

4 University Place

4611 University Drive

Durham, North Carolina 27707

(919) 493-5980

Approximate date of commencement of proposed sale to the public: As soon as practicable after this Registration Statement becomes effective.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box: $\mid _ \mid$

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, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box: |X|

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, 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: $|_|$

SUBJECT TO COMPLETION, DATED DECEMBER ___, 2001

The information in this prospectus is not complete and may be changed. The selling stockholders may not sell the common stock covered by this prospectus until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell the common stock and it is not soliciting an offer to buy the common stock in any state where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS

28,301,887 SHARES

TRIANGLE PHARMACEUTICALS, INC.

COMMON STOCK

This prospectus relates to the resale of 28,301,887 shares of common stock held by the selling stockholders identified in this prospectus.

The selling stockholders may offer their shares through public or private transactions, on or off the Nasdaq National Market, at prevailing market prices, or at privately negotiated prices. We will not receive any part of the proceeds from these sales.

Our common stock is traded on the Nasdaq National Market under the symbol "VIRS." On December 4, 2001, the last reported sale price for the common stock was \$4.15 per share.

INVESTING IN OUR COMMON STOCK INVOLVES A HIGH DEGREE OF RISK. SEE "RISK

FACTORS" BEGINNING ON PAGE 3 TO READ ABOUT SOME IMPORTANT RISKS YOU SHOULD CONSIDER BEFORE BUYING ANY SHARES OF OUR COMMON STOCK.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED THESE SECURITIES, OR PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is December ____, 2001

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You should rely only on the information in this prospectus or information we have referred to in this prospectus. We have not authorized anyone to provide you with information that is different. This prospectus may only be used where it is legal to sell these securities. This prospectus is not an offer to sell, or a solicitation of an offer to buy, in any state where the offer or sale is prohibited. The information in this prospectus is accurate on the date of this prospectus and may become obsolete later. Neither the delivery of this prospectus, nor any sale made under this prospectus will, under any circumstances, imply that the information in this prospectus is correct as of any date after the date of this prospectus.

I. OUR BUSINESS

We develop new drug candidates primarily in the antiviral area, with a particular focus on therapies for HIV, including AIDS, and the hepatitis B virus. We have an existing portfolio of five licensed drug candidates in clinical trials and several drug candidates that are in a pre-clinical stage or for which we have an option to acquire a license. Members of our senior management team, prior to joining Triangle, played instrumental roles in developing and commercializing several leading antiviral therapies. Our goal is to capitalize on our management team's expertise, as well as on advances in virology and immunology, to identify, develop and commercialize new drug candidates that can be used alone or in combination to treat serious diseases.

Triangle was incorporated in Delaware in July 1995. Our principal executive offices are located at 4 University Place, 4611 University Drive, Durham, North Carolina 27707, and our telephone number is (919) 493-5980.

II. RISK FACTORS

IN ADDITION TO THE OTHER INFORMATION IN THIS PROSPECTUS, YOU SHOULD CAREFULLY CONSIDER THE FOLLOWING RISKS BEFORE MAKING AN INVESTMENT DECISION. THE OCCURRENCE OF ANY OF THE EVENTS OR CIRCUMSTANCES DESCRIBED IN THIS SECTION COULD IMPAIR OUR BUSINESS OR FINANCIAL CONDITION, THE TRADING PRICE OF OUR COMMON STOCK COULD DECLINE, AND YOU MAY LOSE ALL OR PART OF YOUR INVESTMENT.

ALL OF OUR DRUG CANDIDATES ARE IN DEVELOPMENT AND WE MAY NEVER SUCCESSFULLY COMMERCIALIZE THEM.

Some of our drug candidates are at an early stage of development and all of our drug candidates will require expensive and lengthy testing and regulatory clearances before we may commercialize them. We do not expect any of our drug candidates to be commercially available until at least the year 2003. There are many reasons that we may fail in our efforts to develop our drug candidates, including that:

- o our drug candidates may be ineffective, toxic or may not receive regulatory clearances,
- o our drug candidates may be too expensive to manufacture or market or may not achieve broad market acceptance,
- o third parties may hold proprietary rights that preclude us from developing or marketing our drug candidates, or
- o third parties may market equivalent or superior products.

The success of our business depends on our ability to successfully develop and market our drug candidates.

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WE HAVE INCURRED LOSSES SINCE INCEPTION AND MAY NEVER ACHIEVE PROFITABILITY.

We formed Triangle in July 1995 and have incurred losses since our inception. At September 30, 2001, our accumulated deficit was \$393.2 million. Our historical costs relate primarily to the acquisition and development of our drug candidates and selling, general and administrative costs. We have

not generated any revenue from the sale of our drug candidates to date, and do not expect to do so until at least the year 2003. In addition, we expect annual losses to continue over the next several years as a result of our drug development and commercialization efforts. To become profitable, we must successfully develop and obtain regulatory approval for our drug candidates and effectively manufacture, market and sell any products we develop. We may never generate significant revenue or achieve profitability.

IF WE NEED ADDITIONAL FUNDS AND ARE UNABLE TO RAISE THEM, WE WILL HAVE TO CURTAIL OR CEASE OPERATIONS.

Our drug development programs and our efforts to commercialize our drug candidates require substantial working capital, including expenses for:

- o preclinical testing,
- o chemical synthetic scale-up,
- o manufacture of drug substance for clinical trials,
- o toxicology studies,
- o clinical trials of drug candidates,
- o sales and marketing,
- o payments to our licensors, and
- o potential commercial launch of our drug candidates.

Our future working capital needs will depend on many factors, including:

- o the progress, magnitude and success of our drug development programs,
- o the scope and results of preclinical testing and clinical trials,
- o the cost, timing and outcome of regulatory filings and reviews,
- o the costs under current and future license and option agreements for our drug candidates, including the costs of obtaining and enforcing patent protection for our drug candidates,
- o the costs of acquiring any additional drug candidates,
- o the out-licensing of existing drug candidates,
- o the rate of technological advances by us and other companies,
- o the commercial potential of our drug candidates,
- o the magnitude of our administrative and legal expenses,
- o the costs of establishing sales and marketing functions, and
- o the costs of establishing third party arrangements for manufacturing.

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We have incurred negative cash flow from operations since we incorporated Triangle and do not expect to generate positive cash flow from our operations for at least the next several years. We believe that our existing cash, cash equivalents and investments, considering our recent steps to reduce cash usage and completed financings (including the sale of shares to Warburg Pincus Private Equity VIII, L.P. and other investors on October 10, 2001), will be adequate through the second quarter of 2003. We expect that we will need additional future financings to fund our operations. We may not be able to obtain adequate financing to fund our operations, and any additional financing we obtain may be on terms that are not favorable to us. In addition, we may not receive the contingent development milestone payments under our strategic alliance with Abbott Laboratories, the Abbott Alliance. In addition, any future financings could substantially dilute our stockholders. If adequate funds are not available, we will be required to delay, reduce or eliminate one or more of our drug development programs, to enter into new collaborative arrangements or to

modify the Abbott Alliance on terms that may not be favorable to us. These collaborative arrangements or modifications could result in the transfer of valuable rights to third parties. In addition, we may acquire technologies and drug candidates that would increase our working capital requirements.

BECAUSE WE MAY NOT SUCCESSFULLY COMPLETE CLINICAL TRIALS REQUIRED FOR REGULATORY APPROVAL OF OUR DRUG CANDIDATES, OUR BUSINESS MAY NEVER ACHIEVE PROFITABILITY.

The regulatory authorities have not approved any of our drug candidates. To obtain regulatory approvals needed for the sale of our drug candidates, we must demonstrate through preclinical testing and clinical trials that each drug candidate is safe and effective. The clinical trial process is complex and uncertain and the regulatory environment varies widely from country to country. Positive results from preclinical testing and early clinical trials do not ensure positive results in pivotal clinical trials. Many companies in our industry have suffered significant setbacks in pivotal clinical trials, even after promising results in earlier trials. Any of our drug candidates may produce undesirable side effects in humans. These side effects could cause us or regulatory authorities to interrupt, delay or halt clinical trials of a drug candidate, as occurred with mozenavir dimesylate, or could result in regulatory authorities refusing to approve the drug candidate for any and all targeted indications. In 2000, the South African Medicines Control Council terminated one of our phase III clinical studies, study FTC-302, for our drug candidate Coviracil and the Food and Drug Administration, the FDA, issued a clinical hold on the study. Our planned submission of an U.S. New Drug Application for Coviracil will likely be delayed until data from our ongoing FTC-301 study is available for inclusion in the filing. We, the FDA, or foreign regulatory authorities may suspend or terminate clinical trials at any time if we or they believe the trial participants face unacceptable health risks.

CLINICAL TRIALS MAY TAKE LONGER TO COMPLETE AND COST MORE THAN WE EXPECT, WHICH WOULD ADVERSELY AFFECT OUR ABILITY TO COMMERCIALIZE DRUG CANDIDATES AND ACHIEVE PROFITABILITY.

Clinical trials are lengthy and expensive. They require adequate supplies of drug substance and sufficient patient enrollment. Patient enrollment is a function of many factors, including:

- o the size of the patient population,
- o the nature of the protocol,
- o the proximity of patients to clinical sites,

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- o the eligibility criteria for the clinical trial, and
- o the perceived benefit of participating in a clinical trial.

Delays in patient enrollment can result in increased costs and longer development times. Even if we successfully complete clinical trials, we may not

be able to file any required regulatory submissions in a timely manner and we may not receive regulatory approval for the drug candidate. In addition, if the FDA or foreign regulatory authorities require additional clinical trials we could face increased costs and significant development delays.

Changes in regulatory policy or new regulations could also result in delays or rejections of our applications for approval of our drug candidates. The FDA has notified us that three of our drug candidates for the treatment of HIV, Coviracil, Coactinon and amdoxovir, qualify for designation as "fast track" products under provisions of the Food and Drug Administration Modernization Act of 1997. The fast track provisions are designed to expedite the review of new drugs intended to treat serious or life-threatening conditions and essentially codified the criteria previously established by the FDA for accelerated approval. These drug candidates may not, however, continue to qualify for expedited review and our other drug candidates may fail to qualify for fast track development or expedited review. Even though some of our drug candidates have qualified for expedited review, the FDA may not approve them at all or any sooner than other drug candidates that do not qualify for expedited review.

IF WE OR OUR LICENSORS ARE NOT ABLE TO OBTAIN AND MAINTAIN ADEQUATE PATENT PROTECTION FOR OUR DRUG CANDIDATES, WE MAY BE UNABLE TO COMMERCIALIZE OUR DRUG CANDIDATES OR TO PREVENT OTHER COMPANIES FROM USING OUR TECHNOLOGY IN COMPETITIVE PRODUCTS.

Our success will depend on our ability and the ability of our licensors to obtain and maintain patents and proprietary rights for our drug candidates and to avoid infringing the proprietary rights of others, both in the United States and in foreign countries. We have no patents solely in our own name and we have a small number of patent applications of our own pending. We have one U.S. patent which is jointly owned with another institution. We have licensed, or have an option to license, patents, patent applications and other proprietary rights from third parties for each of our drug candidates. If we breach our licenses we may lose rights to important technology and drug candidates.

Our patent position on some of our drug candidates, like that of many pharmaceutical companies, is uncertain and involves complex legal and factual questions for which important legal principles are unresolved. We may not develop or obtain rights to products or processes that are patentable. Even if we do obtain patents, they may not adequately protect the technology we own or have licensed. In addition, others may challenge, seek to invalidate, infringe or circumvent any patents we own or license. If they do so successfully, rights we receive under those patents may not provide competitive advantages to us. Further, the manufacture, use or sale of our products or processes may infringe the patent rights of others.

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Several pharmaceutical and biotechnology companies, universities and research institutions have filed patent applications or received patents that cover our technologies or technologies similar to ours. Others have filed patent applications and received patents that conflict with patents or patent applications we own or have licensed, either by claiming the same methods or compounds or by claiming methods or compounds that could dominate those owned by or licensed to us. In addition, we may not be aware of all patents or patent applications that may impact our ability to make, use or sell any of our drug candidates. For example, United States patent applications are confidential while pending in the Patent and Trademark Office, and patent applications filed in foreign countries are often first published six months or more after filing. Any conflicts resulting from third party patent applications and patents could significantly reduce the coverage of our

patents and limit our ability to obtain meaningful patent protection. If other companies obtain patents with conflicting claims, we may be required to obtain licenses to these patents or to develop or obtain alternative technology. We may not be able to obtain any license on acceptable terms or at all. Any failure to obtain licenses could delay or prevent us from pursuing the development or commercialization of our drug candidates, which would adversely affect our ability to achieve profitability.

There are significant risks regarding the patent rights of two of our licensed drug candidates. We may not be able to commercialize Coviracil or amdoxovir due to patent rights held by third parties other than our licensors. Third parties have filed numerous patent applications and have received numerous issued patents in the United States and many foreign countries that relate to these drug candidates and their use alone or in combination to treat HIV and hepatitis B. As a result, our patent position regarding the use of Coviracil and amdoxovir to treat HIV and/or hepatitis B is highly uncertain and involves numerous complex legal and factual questions that are unknown or unresolved. If any of these questions is resolved in a manner that is not favorable to us, we would not have the right to commercialize Coviracil and/or amdoxovir in the absence of a license from one or more third parties, which may not be available on acceptable terms or at all. Even if any of these questions is resolved in our favor, we may still attempt to obtain licenses from one or more third parties to reduce the risks of challenges to our patent positions. These licenses may not be available on acceptable terms or at all. Our inability to commercialize either of these drug candidates would adversely affect our ability to achieve profitability.

COVIRACIL (EMTRICITABINE)

Coviracil, a purified form of FTC, belongs to the same general class of nucleosides as lamivudine. In the United States, the FDA has approved lamivudine for the treatment of hepatitis B and for use in combination with zidovudine, also known as AZT, for the treatment of HIV. Regulatory authorities have approved lamivudine for the treatment of hepatitis B and for use in combination with other nucleoside analogues for the treatment of HIV in a number of other countries. GlaxoSmithKline plc, Glaxo, currently sells lamivudine for the treatment of HIV and hepatitis B under a license agreement with Shire Pharmaceuticals Group, plc. Shire Pharmaceuticals obtained its rights under this license agreement through a merger with BioChem Pharma, Inc. We obtained rights to Coviracil under a license from Emory University. In 1990 and 1991, Emory filed in the United States and then in numerous foreign countries patent applications with claims to compositions of matter and methods to treat HIV and hepatitis B with Coviracil. In 1991, Yale University filed in the United States patent applications on FTC, including emtricitabine and its use to treat hepatitis B, and subsequently licensed its rights under those patent applications to Emory. Our license arrangement with Emory includes all rights to Coviracil and its uses claimed in the Yale patent applications.

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HIV. Emory received a United States patent in 1993 covering a method to treat HIV with Coviracil. Emory has also received United States and European patents containing composition of matter claims that cover Coviracil. BioChem Pharma, now Shire Pharmaceuticals, filed a patent application in the United States in 1989 and received a patent in 1991 covering a group of nucleosides in the same general class as Coviracil, but which did not include Coviracil. Shire Pharmaceuticals filed foreign patent applications in 1990, which expanded on its 1989 United States patent application to include FTC among a large class of nucleosides. The foreign patent applications are pending in many countries and patents have been issued in a number of countries with

claims directed to FTC that may cover Coviracil and its use to treat HIV. In addition, Shire Pharmaceuticals filed a United States patent application in 1991 specifically directed to Coviracil. Shire Pharmaceuticals has received two patents in the United States based on this patent application, one directed to Coviracil and the other directed to a method for treating viral diseases with Coviracil. The Patent and Trademark Office has determined that there are conflicts between both Shire Pharmaceuticals patents and patent applications filed by Emory because they have overlapping claims to the same technology. The Patent and Trademark Office is conducting two adversarial proceedings, interferences, to determine whether Shire Pharmaceuticals or Emory is entitled to the patent claims in dispute regarding Shire Pharmaceuticals' two issued patents. On July 5, 2001, the Patent and Trademark Office issued a decision awarding the patent on the method for treating HIV with Coviracil to Emory and ruled that Shire Pharmaceuticals' patent on that subject matter is invalid. The time to appeal this decision has now expired. The decision is therefore final. Emory may not prevail in the remaining adversarial proceeding, and the proceeding may also delay the decision of the Patent and Trademark Office regarding Emory's patent application. Shire Pharmaceuticals also filed patent applications in many foreign countries based on its 1991 United States patent application and has received patents in some of these countries. Shire Pharmaceuticals may have additional patent applications pending in the United States.

In the United States, the first to invent a technology is entitled to patent protection on that technology. For patent applications filed prior to January 1, 1996, United States patent law provides that a party who invented a technology outside the United States is deemed to have invented the technology on the earlier of the date it introduced the invention in the United States or the date it filed its patent application. In a filing with the Securities and Exchange Commission, Shire Pharmaceuticals stated that prior to January 1, 1996, it conducted substantially all of its research activities outside the United States. Shire Pharmaceuticals also stated that it considered this to be a disadvantage in obtaining United States patents based on patent applications filed before January 1, 1996 as compared to companies that mainly conducted research in the United States. We do not know whether Emory or Shire Pharmaceuticals was the first to invent the technology claimed in their respective United States patent applications or patents. We also do not know whether Shire Pharmaceuticals invented the technology disclosed in its patent applications in the United States or introduced that technology in the United States before the date of its patent applications.

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In foreign countries, the first party to file a patent application on a technology, not the first to invent the technology, is entitled to patent protection on that technology. We believe that Emory filed patent applications disclosing Coviracil as a useful anti-HIV agent in many foreign countries before Shire Pharmaceuticals filed its foreign patent applications on that technology. However, Shire Pharmaceuticals has received patents in several foreign countries. In addition, Shire Pharmaceuticals has filed patent applications on Coviracil and its uses in countries in which Emory did not file patent applications. Emory has opposed or otherwise challenged patent claims on Coviracil granted to Shire Pharmaceuticals in Australia, Europe and South Korea. Emory may not initiate patent opposition proceedings in any other countries or be successful in any foreign proceeding attempting to prevent the issuance of, revoke or limit the scope of patents issued to Shire Pharmaceuticals. Shire Pharmaceuticals has opposed patent claims on Coviracil granted to Emory in Europe, Japan, Australia and South Korea. The South Korean patent office issued a decision upholding patent claims to Emory that cover Coviracil. Shire Pharmaceuticals can appeal this decision. Shire

Pharmaceuticals may make additional challenges to Emory patents or patent applications, which Emory may not succeed in defending. Our sales, if any, of Coviracil for the treatment of HIV may be held to infringe United States and foreign patent rights of Shire Pharmaceuticals. Under the patent laws of most countries, a product can be found to infringe a third party patent either if the third party patent expressly covers the product or method of treatment using the product, or if the third party patent covers subject matter that is substantially equivalent in nature to the product or method, even if the patent does not expressly cover the product or method. If any governmental authority determined that the sale of Coviracil for the treatment of HIV infringes a Shire Pharmaceuticals patent, we would not have the right to make, use or sell Coviracil for the treatment of HIV in that country in the absence of a license from Shire Pharmaceuticals. We may be unable to obtain a license from Shire Pharmaceuticals on acceptable terms or at all.

HEPATITIS B. Burroughs Wellcome Co. filed patent applications in March 1991 and May 1991 in Great Britain on a method to treat hepatitis B with FTC and purified forms of FTC, that include emtricitabine. Burroughs Wellcome filed similar patent applications in other countries, including the United States. Glaxo subsequently acquired Burroughs Wellcome's rights under those patent applications. Those patent applications were filed in foreign countries prior to the date Emory filed its patent application on the use of emtricitabine to treat hepatitis B. Burroughs Wellcome's foreign patent applications, therefore, have priority over those filed by Emory. In July 1996, Emory instituted litigation against Glaxo in the United States District Court to obtain ownership of the patent applications filed by Burroughs Wellcome, alleging that Burroughs Wellcome converted and misappropriated Emory's invention and property and that an Emory employee is the inventor or a co-inventor of the subject matter covered by the Burroughs Wellcome patent applications. In May 1999, Emory and Glaxo settled the litigation, and we became the exclusive licensee of the United States and all foreign patent applications and patents filed by Burroughs Wellcome on the use of emtricitabine to treat hepatitis B. Under the license and settlement agreements, Emory and we were also given access to development and clinical data and drug substance held by Glaxo relating to emtricitabine.

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Shire Pharmaceuticals filed a patent application in May 1991 in Great Britain also directed to a method to treat hepatitis B with FTC. Shire Pharmaceuticals filed similar patent applications in other countries. In January 1996, Shire Pharmaceuticals received a patent in the United States, which included a claim to treat hepatitis B with emtricitabine. The Patent and Trademark Office has determined that there is a conflict between the Shire Pharmaceuticals patent and patent applications filed by Yale and Emory. The Patent and Trademark Office is conducting an adversarial proceeding, an interference, to determine which party is entitled to the patent claims in dispute. Yale licensed all of its rights relating to FTC, including emtricitabine, and its uses claimed in this patent application to Emory, which subsequently licensed these rights to us. Neither Emory nor Yale may prevail in the adversarial proceeding, and the proceeding may delay the decision of the Patent and Trademark Office regarding Yale's and Emory's patent applications. In addition, the Patent and Trademark Office has recently added the U.S. patent application filed by Burroughs Wellcome to this interference. Emory may not pursue or succeed in these proceedings. We will not be able to sell emtricitabine for the treatment of hepatitis B in the United States unless a United States court or administrative body determines that the Shire Pharmaceuticals patent is invalid or unless we obtain a license from Shire Pharmaceuticals. We may be unable to obtain a license on acceptable terms or at all. In July 1991, Shire Pharmaceuticals received a United States patent on the use of lamivudine to treat hepatitis B and has corresponding patent applications

pending or issued in foreign countries. If the Patent and Trademark Office determines that the use of emtricitable to treat hepatitis B is not substantially different from the use of lamivudine to treat hepatitis B, a court could hold that the use of emtricitable to treat hepatitis B infringes these Shire Pharmaceuticals lamivudine patents.

In addition, Shire Pharmaceuticals has filed patent applications and received patents in the United States and foreign countries on manufacturing methods relating to a class of nucleosides that includes emtricitabine. If we use a manufacturing method that is covered by any of Shire Pharmaceuticals' patents, we will not be able to manufacture emtricitabine without a license from Shire Pharmaceuticals. We may not be able to obtain a license on acceptable terms or at all.

AMDOXOVIR (FORMERLY KNOWN AS DAPD)

We obtained our rights to amdoxovir under a license from Emory and the University of Georgia Research Foundation, Inc., University of Georgia. Our rights to amdoxovir include a number of issued United States patents that cover:

- o composition of matter,
- o a method for the synthesis of amdoxovir,
- o $\mbox{methods}$ for the use of amdoxovir alone or in combination with several other agents for the treatment of hepatitis \mbox{B} , and
- o a method to treat HIV with amdoxovir.

We also have rights to several foreign patents and patent applications that cover methods for the use of amdoxovir alone or in combination with other anti-hepatitis B agents for the treatment of hepatitis B. Additional foreign patent applications are pending which contain claims for the use of amdoxovir to treat HIV. Emory and the University of Georgia filed patent applications claiming these inventions in the United States in 1990 and 1992.

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Shire Pharmaceuticals filed a patent application in the United States in 1988 on a group of nucleosides in the same general class as amdoxovir and their use to treat HIV, and has filed corresponding patent applications in foreign countries. The Patent and Trademark Office issued a patent to Shire Pharmaceuticals in 1993 covering a class of nucleosides that includes amdoxovir and its use to treat HIV. Corresponding patents have been issued to Shire Pharmaceuticals in many foreign countries. Emory has filed an opposition to patent claims granted to Shire Pharmaceuticals by the European Patent Office based, in part, on Emory's assertion that Shire Pharmaceuticals' patent does not disclose how to make amdoxovir. In a patent opposition hearing held at the European Patent Office on March 4, 1999, the Opposition Division ruled that the Shire Pharmaceuticals European patent covering amdoxovir is valid. Emory has appealed this decision to the European Patent Office Technical Board of Appeal. If the Technical Board of Appeal affirms the decision of the Opposition Division, or if we or Emory do not pursue the appeal, we would not be able to sell amdoxovir in Europe without a license from Shire Pharmaceuticals, which may not be available on acceptable terms or at all. Shire Pharmaceuticals has opposed patent claims granted to Emory on both amdoxovir and DXG, the parent drug into which amdoxovir is converted in the body, in the Australian Patent Office.

In a decision dated November 8, 2000, the Australian Patent Office held that Emory's patent claims directed to amdoxovir are not patentable over an earlier Shire Pharmaceuticals patent. Emory has appealed this decision of the Australian Patent Office to the Australian Federal Court. If Emory, the

University of Georgia or we are unsuccessful in the appeal, then we will not be able to sell amdoxovir in Australia without a license from Shire Pharmaceuticals, which may not be available on acceptable terms or at all. Shire Pharmaceuticals' opposition to Emory's patent claims on DXG in Australia is ongoing. If Emory, the University of Georgia or we do not challenge, or are not successful in any challenge to, Shire Pharmaceuticals' issued patents, pending patent applications, or patents that may issue from its applications, we will not be able to manufacture, use or sell amdoxovir in the United States and any foreign countries in which Shire Pharmaceuticals receives a patent without a license from Shire Pharmaceuticals. We may not be able to obtain a license from Shire Pharmaceuticals on acceptable terms or at all.

IMMUNOSTIMULATORY SEQUENCE PRODUCT CANDIDATES

In March 2000, we entered into a licensing and collaborative agreement with Dynavax Technologies Corporation to develop immunostimulatory polynucleotide sequence product candidates for the prevention and/or treatment of serious viral diseases, which became effective in April 2000. Immunostimulatory sequences are polynucleotides which stimulate the immune system, and could potentially be used in combination with our small molecule product candidates to increase the body's ability to defend against viral infection. Immunostimulatory sequences can be stabilized for use through internal linkages that do not occur in nature, including phosphorothioate linkages.

There are a number of companies which have patent applications and issued patents, both in the United States and in other countries, that cover immunostimulatory sequences and their uses. Coley Pharmaceuticals, Inc. has filed several patent applications in this area and has in addition exclusively licensed a number of patent applications on this subject from the University of Iowa and Isis Pharmaceuticals, Inc. A number of these patent applications have been issued. A number of companies have also filed patent applications and have or are expected to receive patents on a number of polynucleotides and methods for their use and manufacture. These patents, if granted, could prevent us from making, using or selling any immunostimulatory sequence that is covered by a patent issued to a third party unless we obtain a license from that party which may not be available on acceptable terms or at all.

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With respect to any of our drug candidates, litigation, patent opposition and adversarial proceedings, including the currently pending proceedings, could result in substantial costs to us. The costs of the currently pending proceedings are significant and may increase significantly during the next several years. We anticipate that additional litigation and/or proceedings will be necessary or may be initiated to enforce any patents we own or are significant and license, or to determine the scope, validity and enforceability of other parties' proprietary rights and the priority of an invention. Any of these activities could result in substantial costs and/or delays to us. The outcome of any of these proceedings may significantly affect our rights to develop and commercialize drug candidates and technology.

United States patents carry a presumption of validity and generally can be invalidated only through clear and convincing evidence. As indicated above, the Patent and Trademark Office is conducting three adversarial proceedings in connection with the emtricitabine technology. A court or administrative body may not hold our licensed patents valid or may not find an alleged infringer to be infringing. Further, the license and option

agreements with Emory, the University of Georgia, The Regents of the University of California, The DuPont Pharmaceuticals Company, Mitsubishi Pharma Corporation (formerly, Mitsubishi-Tokyo Pharmaceuticals, Inc.) and Dynavax provide that each of these licensors is primarily responsible for any patent prosecution activities, such as litigation, patent conflict proceeding, patent opposition or other actions, for the technology licensed to us. These agreements also provide that we generally must reimburse these licensors for the costs they incur in performing these activities. Similarly, Yale and the University of Georgia, the licensors of clevudine to Bukwang Pharm. Ind. Co., Ltd., are primarily responsible for patent prosecution activities with respect to clevudine at our expense. As a result, we generally do not have the ability to institute or determine the conduct of any patent proceedings unless our licensors elect not to institute or to abandon the proceedings. If our licensors elect to institute and prosecute patent proceedings, our rights will depend in part on the manner in which these licensors conduct the proceedings. In any proceedings they elect to initiate and maintain, these licensors may not vigorously pursue or defend or may decide to settle on terms that are unfavorable to us. An adverse outcome of these proceedings could subject us to significant liabilities to third parties, require disputed rights to be licensed from third parties or require us to cease using technology, any of which could adversely affect our business. Moreover, the mere uncertainty resulting from the initiation and continuation of any technology related litigation or adversarial proceeding could adversely affect our business pending resolution of the disputed matters.

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BECAUSE WE MAY NOT BE ABLE TO MAINTAIN THE CONFIDENTIALITY OF OUR TRADE SECRETS AND KNOW-HOW, WE MAY LOSE A COMPETITIVE ADVANTAGE.

We also rely on unpatented trade secrets and know-how to maintain our competitive position, which we seek to protect, in part, by confidentiality agreements with employees, consultants and others. These parties may breach or terminate these agreements, and we may not have adequate remedies for any breach. Our trade secrets may also be independently discovered by competitors. We rely on technologies to which we do not have exclusive rights or which may not be patentable or proprietary and may be available to competitors. We have filed applications for, but have not obtained, trademark registrations for various marks in the United States and other jurisdictions. We have received U.S. trademark registrations for our corporate name and our corporate name and logo, as well as the marks Coactinon(R) and Coviracil(R). We have received Canadian trademark registrations for the marks Coactinon(R) and Coviracil(R). We have also received registrations in the European Union for the mark Coactinon(R) and our corporate logo. Our pending application in the European Union for the mark CoviracilTM has been opposed by Orsem, based on registrations for the mark Coversyl in various countries, and Les Laboratories Serveir, based on a French registration for the mark Coversyl. We do not believe that the marks Coviracil and Coversyl are confusingly similar, but, in the event they are found to be confusingly similar, we may need to adopt a different product name for emtricitabine in the applicable jurisdictions. Several other companies use trade names that are similar to our name for their businesses. If we are unable to obtain any licenses that may be necessary for the use of our corporate name, we may be required to change our name. Our management personnel were previously employed by other pharmaceutical companies. The prior employers of these individuals may allege violations of trade secrets and other similar claims relating to their drug development activities for us.

THE COSTS AND TIME REQUIRED TO COMPLY WITH EXTENSIVE GOVERNMENT REGULATIONS

COULD PREVENT OR DELAY THE COMMERCIALIZATION OF OUR PRODUCTS.

In addition to preclinical testing, clinical trials and other approval procedures for human pharmaceutical products, we are subject to numerous domestic and international regulations covering the development and registration of pharmaceutical products. These regulations affect:

- o manufacturing,
- o safety,
- o labeling,
- o storage,
- o record keeping,
- o reporting, and
- o marketing and promotion.

We must also comply with regulations governing non-clinical and clinical laboratory practices, safe working conditions, and the use and disposal of hazardous substances, including radioactive compounds and infectious disease agents we use in connection with our development work. The requirements vary widely from country to country and some requirements may vary from state to state in the United States. We expect the process of obtaining these approvals and complying with appropriate government regulations to be time consuming and expensive. Even if our drug candidates receive regulatory approval, we may still face difficulties in marketing and manufacturing those drug candidates. Any approval may be contingent on postmarketing studies or other conditions. The approval of any of our drug candidates may limit the indicated uses of the drug candidate. A marketed product, its manufacturer and the manufacturer's facilities are subject to continual review and periodic inspections. The discovery of previously unknown problems with a product, manufacturer or facility may result in restrictions on the product or manufacturer, including withdrawal of the product from the market. The failure to comply with applicable regulatory requirements can, among other things, result in:

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- o fines,
- o suspended regulatory approvals,
- o refusal to approve pending applications,
- o refusal to permit exports from the United States,
- o product recalls,
- o seizure of products,
- o injunctions,
- o operating restrictions, and
- o criminal prosecutions.

In addition, adverse clinical results by others could negatively impact the development and approval of our drug candidates. Some of our drug candidates are intended for use as combination therapy with one or more other drugs, and adverse safety, effectiveness or regulatory developments in connection with the other drugs will also have an adverse effect on our business.

INTENSE COMPETITION MAY RENDER OUR DRUG CANDIDATES NONCOMPETITIVE OR OBSOLETE.

We are engaged in segments of the drug industry that are highly competitive and rapidly changing. Any of our current drug candidates that we successfully develop will compete with numerous existing therapies. In addition, many companies are pursuing novel drugs that target the same diseases we are

targeting. We believe that a significant number of drugs are currently under development and will become available in the future for the treatment of HIV and hepatitis B. We anticipate that we will face intense and increasing competition as new products enter the market and advanced technologies become available. Our competitors' products may be more effective, or more effectively marketed and sold, than any of our products. Competitive products may render our products obsolete or noncompetitive before we can recover the expenses of developing and commercializing our drug candidates. Furthermore, the development of a cure or new treatment methods for the diseases we are targeting could render our drug candidates noncompetitive, obsolete or uneconomical. Many of our competitors:

o have significantly greater financial, technical and human resources than we have and may be better equipped to develop, manufacture and market products,

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- o have extensive experience in preclinical testing and clinical trials, obtaining regulatory approvals and manufacturing and marketing pharmaceutical products, and
- o have products that have been approved or are in late stage development and operate large, well-funded research and development programs.

Smaller companies may also prove to be significant competitors, particularly through collaborative arrangements with large pharmaceutical and biotechnology companies. Academic institutions, governmental agencies and other public and private research organizations are also becoming increasingly aware of the commercial value of their inventions and are more actively seeking to commercialize the technology they have developed.

If we successfully develop and obtain approval for our drug candidates, we will face competition based on many factors including:

- o the safety and effectiveness of our products,
- o the timing and scope of regulatory approvals,
- o the availability of supply,
- o marketing and sales capability,
- o reimbursement coverage,
- o price, and
- o patent position.

Our competitors may develop or commercialize more effective or more affordable products, or obtain more effective patent protection, than we do. Accordingly, our competitors may commercialize products more rapidly or effectively than we do, which could hurt our competitive position.

IF OUR LICENSORS TERMINATE THEIR AGREEMENTS WITH US, WE COULD LOSE OUR RIGHTS TO OUR DRUG CANDIDATES.

We have licensed or obtained an option to license our drug candidates under agreements with our licensors. These agreements permit our licensors to terminate the agreements in circumstances such as our failure to achieve development milestones or the occurrence of an uncured material breach by us. The termination of any of these agreements would result in the loss of our rights to a drug candidate. On the termination of most of our license agreements, we are required to return the licensed technology to our licensors. In addition, most of these agreements provide that we generally must reimburse our licensors for the costs they incur in performing any patent prosecution activities such as litigation, patent conflict, patent opposition or other

actions, for the technology licensed to us. We believe that these costs as well as other costs under our license and option agreements will be substantial and may increase significantly during the next several years. Our inability or failure to pay any of these costs with respect to any drug candidate could result in the termination of the license or option agreement for the drug candidate.

IF WE ARE NOT ABLE TO SUCCESSFULLY MANUFACTURE OUR DRUG CANDIDATES, OUR BUSINESS MAY NEVER ACHIEVE PROFITABILITY.

We do not have any internal manufacturing capacity and we rely on third party manufacturers for the manufacture of all of our clinical trial material. We plan to use

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our existing relationships or to establish relationships with additional third party manufacturers for products that we develop. The terms of the Abbott Alliance provide that Abbott Laboratories will manufacture all or a portion of our product requirements for those products that are or become covered by the Abbott Alliance. We may be unable to maintain our relationship with Abbott or to establish or maintain relationships with other manufacturers on acceptable terms, and manufacturers may be unable to manufacture products in commercial quantities on a cost effective basis. Our dependence on third parties for the manufacture of our products may adversely affect our profit margins and our ability to develop and commercialize products on a timely and competitive basis. Further, third party manufacturers may encounter manufacturing or quality control problems in manufacturing our products and may be unable to maintain the necessary governmental licenses and approvals to continue manufacturing our products.

BECAUSE WE DEPEND ON THIRD PARTIES, WE MAY BE UNABLE TO SUCCESSFULLY MARKET, SELL OR DISTRIBUTE PRODUCTS WE DEVELOP.

In the United States, we currently intend to market the products covered by the Abbott Alliance in collaboration with Abbott and to market other products that we successfully develop, that do not become part of the Abbott Alliance, through a direct sales force or through arrangements or collaborations with third parties. Outside of the United States, we expect Abbott to market products covered by the Abbott Alliance and, for any other drug candidates that we successfully develop that do not become part of the Abbott Alliance, we intend to market and sell through arrangements or collaborations with third parties. In addition, we expect Abbott to handle the distribution and sale of products covered by the Abbott Alliance both inside and outside the United States. With respect to the United States, our ability to market the products that we successfully develop may be contingent on recruitment, training and deployment of a sales and marketing force as well as the performance of Abbott under the Abbott Alliance. We may be unable to establish marketing or sales capabilities or to maintain arrangements or enter into new arrangements with third parties to perform those activities on favorable terms. In addition, third parties may have significant control or influence over important aspects of the commercialization of our drug candidates, including market identification, marketing methods, pricing, composition of sales force and promotional activities. We may have limited control over the amount and timing of resources that a third party devotes to our products. Our business may never achieve profitability if we fail to establish or maintain a sales force and marketing, sales and distribution capabilities.

BECAUSE WE DEPEND ON THIRD PARTIES FOR THE DISCOVERY AND DEVELOPMENT OF DRUG CANDIDATES, WE MAY NOT SUCCESSFULLY ACQUIRE ADDITIONAL DRUG CANDIDATES OR DEVELOP OUR CURRENT DRUG CANDIDATES.

We do not currently intend to engage in drug discovery. Our strategy for obtaining additional drug candidates is to utilize the relationships of our management team and scientific consultants to identify drug candidates for in-licensing from companies, universities, research institutions and other organizations. We may not succeed in acquiring additional drug candidates on acceptable terms or at all.

Because we have engaged and intend to continue to engage third party contract research organizations and other third parties to help us develop our drug candidates, many important aspects of our drug development programs have been and will continue to be outside of our direct control. In addition, the contract research organizations may not perform all of their obligations under arrangements with us. If the contract research organizations do not perform

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clinical trials in a satisfactory manner or breach their obligations to us, the development and commercialization of any drug candidate may be delayed or precluded.

BECAUSE WE MAY NOT BE ABLE TO ATTRACT AND RETAIN KEY PERSONNEL AND ADVISORS, WE MAY NOT SUCCESSFULLY DEVELOP OUR DRUG CANDIDATES OR ACHIEVE OUR OTHER BUSINESS OBJECTIVES.

We are highly dependent on our senior management and scientific staff, including Dr. David Barry, our Chairman and Chief Executive Officer. The loss of the services of any member of our senior management or scientific staff may significantly delay or prevent the achievement of product development and other business objectives. In order to pursue our drug development programs and marketing plans, we will need to hire additional qualified scientific and management personnel. Competition for qualified individuals is intense and we face competition from numerous pharmaceutical and biotechnology companies, universities and other research institutions. If we are not able to attract and retain these individuals we may not be able to successfully commercialize our drug candidates.

HEALTH CARE REFORM MEASURES AND THIRD PARTY REIMBURSEMENT PRACTICES ARE UNCERTAIN AND MAY DELAY OR PREVENT THE COMMERCIALIZATION OF OUR DRUG CANDIDATES.

The efforts of governments and third party payors to contain or reduce the cost of health care will continue to affect the business and financial condition of drug companies. A number of legislative and regulatory proposals to change the health care system have been considered in recent years. In addition, an increasing emphasis on managed care in the United States has and will continue to increase pressure on drug pricing. Legislative or regulatory proposals or changes in managed care systems may be adopted that may have a negative effect on our business. The announcement and/or adoption of proposals could have an adverse effect on our ability to earn profits and financial condition. Sales of prescription drugs depend significantly on the availability of reimbursement to the consumer from third party payors, such as government and private insurance plans. These third party payors frequently require that drug companies give them predetermined discounts from list prices, and they are increasingly challenging the prices for medical products and services. Present combination treatment regimens for the treatment of HIV are expensive and costs may increase as new combinations are developed. These costs have resulted in limitations in the

reimbursement available from third party payors for the treatment of HIV infection, and we expect these limitations will continue in the future. Third party payors may not consider products we may bring to the market cost effective and may not reimburse the consumer sufficiently to allow us to sell our products on a profitable basis.

IF OUR PRODUCTS DO NOT ACHIEVE MARKET ACCEPTANCE, OUR BUSINESS MAY NEVER ACHIEVE PROFITABILITY.

Our success will depend on the market acceptance of any products we develop. The degree of market acceptance will depend on a number of factors, including:

- o the receipt and scope of regulatory approvals,
- o the establishment and demonstration in the medical community of the safety and effectiveness of our products and their potential advantages over existing treatment methods, and
- o reimbursement policies of government and third party payors.

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Physicians, patients, payors or the medical community in general may not accept or utilize any product that we may develop.

WE MAY NOT HAVE ADEQUATE INSURANCE PROTECTION AGAINST PRODUCT LIABILITY.

Our business exposes us to potential product liability risks that are inherent in the testing of drug candidates and the manufacturing and marketing of drug products and we may face product liability claims in the future. We currently have only limited product liability insurance. We may be unable to maintain our existing insurance and/or obtain additional insurance in the future at a reasonable cost or in sufficient amounts to protect against potential losses. A successful product liability claim or series of claims brought against us could require us to pay substantial amounts that would decrease our profitability, if any.

WE MAY INCUR SUBSTANTIAL COSTS RELATED TO OUR USE OF HAZARDOUS MATERIALS.

We use hazardous materials, chemicals, viruses and various radioactive compounds in our drug development programs. Although we believe that our handling and disposing of these materials comply with state and federal regulations, the risk of accidental contamination or injury still exists. We could be held liable for any damages or fines that result from any accidental contamination or injury and the liability could exceed our resources.

OUR CONTROLLING STOCKHOLDERS MAY MAKE DECISIONS YOU DO NOT CONSIDER TO BE IN YOUR BEST INTEREST.

As of October 15, 2001, our directors, executive officers and their affiliates, excluding Abbott and Warburg Pincus Private Equity VIII, L.P., owned approximately 12.8% of our outstanding common stock. Abbott owned approximately 10.3% of our outstanding common stock and Warburg Pincus owned approximately 30.4% of our outstanding common stock. Under the terms of the Abbott Alliance, Abbott has the right to purchase additional shares of our common stock up to a maximum aggregate percentage of 21% of our outstanding common stock and has rights to purchase shares directly from us in order to maintain its existing level of ownership. For so long as Warburg Pincus continues to own at least 5,846,222 shares of our common stock and at least 10% of our outstanding common

stock, Warburg Pincus has the right to participate in any sales of equity securities by Triangle, other than sales in connection with a registered underwritten offering, a merger or similar transaction or a stock option or similar plan, in proportion to the percentage of all outstanding securities of Triangle held by Warburg Pincus at the time of the transaction. Abbott has the right to designate one person to serve as a member of our Board of Directors and Warburg Pincus has the right to designate two people to serve as members of our Board of Directors. As a result, our controlling stockholders are able to significantly influence all matters requiring stockholder approval, including the election of directors and the approval of significant corporate transactions. This concentration of ownership could also delay or prevent a change in control of Triangle that may be favored by other stockholders.

THE MARKET PRICE OF OUR STOCK MAY FALL AS A RESULT OF MARKET VOLATILITY AND FUTURE DEVELOPMENTS IN OUR INDUSTRY.

The market price of our common stock is likely to be volatile and could fluctuate widely in response to many factors, including:

o announcements of the results of clinical trials by us or our competitors,

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- o announcements of the timing of regulatory submissions and/or approvals by us or our competitors,
- o developments with respect to patents or proprietary rights,
- o announcements of technological innovations by us or our competitors, $% \left(1\right) =\left(1\right) \left(1\right) \left($
- o announcements of new products or new contracts by us or our competitors, $% \left(1\right) =\left(1\right) +\left(1\right)$
- actual or anticipated variations in our operating results, including targeted cash usage, due to the level of development expenses and other factors,
- o changes in financial estimates by securities analysts and whether our earnings meet or exceed analysts' estimates,
- o conditions and trends in the pharmaceutical and other industries,
- o new accounting standards,
- o $% \left(1\right) =\left(1\right) +\left(1\right) +$
- o the occurrence of any of the risks described in these "Risk Factors."

In the past, following periods of volatility in the market price of the securities of companies in our industry, securities class action law suits have often been brought against those companies. If we face litigation in the future, it would result in substantial costs and a diversion of management attention and resources, which would negatively impact our business.

APPROXIMATELY 28,000,000 SHARES OF OUR COMMON STOCK MAY BE SOLD WITHOUT RESTRICTION AND APPROXIMATELY 38,950,000 SHARES ARE REGISTERED FOR SALE. SALES OF A LARGE NUMBER OF OUR SHARES MAY CAUSE OUR STOCK PRICE TO FALL EVEN IF OUR BUSINESS IS DOING WELL.

If our stockholders sell a substantial number of shares of our common

stock in the public market, the market price of our common stock could decline. As of October 15, 2001, there were 76,816,387 shares of common stock outstanding, of which approximately 28,000,000 were immediately eligible for resale in the public market without restriction. Holders of approximately 42,200,000 shares have rights to cause us to register their shares for sale to the public. We have filed registration statements to register the sale of approximately 38,950,000 of these shares. In addition, Abbott will have the right on or after June 30, 2002 to cause us to register for resale in the public market the 6,571,428 shares of common stock purchased at the closing of the Abbott Alliance.

Declines in our stock price might harm our ability to issue equity or secure other types of financing arrangements. The price at which we issue shares is generally based on the market price of our common stock and a decline in our stock price would result in our needing to issue a greater number of shares to raise a given amount of funds or acquire a given amount of goods or services. For this reason, a decline in our stock price might also result in increased ownership dilution to our stockholders.

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PROVISIONS IN OUR CHARTER DOCUMENTS AND DELAWARE LAW COULD DELAY OR PREVENT A CHANGE IN MANAGEMENT OR A TAKEOVER ATTEMPT THAT YOU CONSIDER TO BE IN YOUR BEST INTEREST.

We have adopted a number of provisions that could deter an acquisition of Triangle which was not approved by the Board of Directors of Triangle. We have adopted a preferred stock purchase rights plan, commonly referred to as a "poison pill." The rights plan is intended to deter an attempt to acquire Triangle in a manner or on terms not approved by the Board of Directors. The rights plan will not prevent an acquisition of Triangle which is approved by the Board of Directors. Our charter authorizes the Board of Directors to determine the terms of any shares of undesignated preferred stock and issue them without stockholder approval. The issuance of preferred stock may make it more difficult for a third party to acquire, or may discourage a third party from acquiring, voting control of Triangle.

Provisions in our charter and bylaws, as well as some provisions of Delaware law could delay or prevent the removal of incumbent directors and could make more difficult a merger, tender offer or proxy contest involving Triangle, even if the events could be beneficial to our stockholders. For example, our bylaws divide the Board of Directors into three classes of directors with each class serving a three year term. These provisions could also limit the price that investors might be willing to pay for our common stock.

III. FORWARD-LOOKING STATEMENTS

This prospectus contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical facts, included in, or incorporated by reference

into this prospectus, are forward-looking statements. In addition, when we use the words "anticipate," "estimate," "project," and similar expressions in this document, we are identifying forward-looking statements. These forward-looking statements are subject to various risks and uncertainties and are based on our assumptions. If one or more of these risks or uncertainties materialize, or if our underlying assumptions prove incorrect, actual results may vary materially from those contained in these forward looking statements. We have outlined risks we can identify under "Risk Factors," which may cause our or our industry's actual results, levels of activity, performance or achievements to be materially different from future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, future results, levels of activity, performance or achievements may vary significantly from our expectations. We are under no duty to update any of the forward-looking statements after the date of this prospectus or to conform these statements to actual results unless required by law.

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IV. USE OF PROCEEDS

We will not receive any of the proceeds from the sale of the shares by the selling stockholders.

V. SELLING STOCKHOLDERS

We are registering all 28,301,887 shares of common stock covered by this prospectus on behalf of the selling stockholders named in the table below. We issued and sold all of the shares to the selling stockholders in a private placement completed in two stages. We completed the first stage on August 24, 2001 by issuing 9,628,002 shares and completed the second stage on October 10, 2001 by issuing 18,673,885 shares. We have registered the shares of common stock to permit the selling stockholders and their pledgees, donees, transferees or other successors—in—interest that receive their shares from a selling stockholder as a gift, partnership distribution or other non—sale related transfer after the date of this prospectus to resell the shares when they deem appropriate.

We have agreed to file any amendments and supplements to the registration statement that are necessary to keep the registration statement effective until the earlier of the date on which all of the shares may be sold under Rule 144 under the Securities Act or two years from the effective date of the registration statement.

The following table contains:

- o the name of each of the selling stockholders,
- o the number of shares owned by each of the selling stockholders as of October 15, 2001,
- o the number of shares that may be offered under this prospectus, and
- o the number of shares of our common stock owned by each of the selling stockholders after this offering is completed.

Except as described in the table below, none of the selling stockholders has had a material relationship with us within the past three years other than

as a result of the ownership of the shares or other securities of Triangle. The number of shares in the column "Number of Shares Being Offered" represent all of the shares that each selling stockholder may offer under this prospectus. We do not know how long the selling stockholders will hold the shares before selling them or if they will sell them and we currently have no agreements, arrangements or understandings with any of the selling stockholders regarding the sale of any of the shares other than our agreement to register the shares covered by this prospectus.

The registration statement of which this prospectus is a part will also cover any additional shares of common stock which are issued to the selling stockholders as a result of any stock dividend, stock split, recapitalization or other similar transaction which results in an increase in the number of Triangle's outstanding shares of common stock.

Except as indicated in the table below, each person has sole investment and voting power with respect to the shares listed in the table. For purposes of this table, a person or group of persons is deemed to have "beneficial ownership" of any shares which the person has the right to acquire within 60 days. Percentage ownership is based on 76,816,387 shares of common stock of Triangle outstanding on October 15, 2001. For purposes of computing the percentage of outstanding shares held by each person named below, any security which a person has the right to acquire within 60 days is deemed to be outstanding for the purpose of computing the

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percentage ownership for that person, but is not deemed to be outstanding for the purpose of computing the percentage ownership for other persons.

	SHARES BENEFICIALLY OWNED PRIOR TO OFFERING		NUMBER OF SHARES BEING	SHARES BENEFICIALLY OWNED AFTER OFFERING (1)	
NAME OF SELLING STOCKHOLDER	NUMBER	PERCENT	OFFERED	NUMBER	PERCENT
	.=				
Caduceus Capital II, L.P.	950 , 000	1.2%	540 , 000	410,000	*
PW Eucalyptus Fund, L.L.C.	1,940,000	2.5	940,000	1,000,000	1.3%
PW Eucalyptus Fund, Ltd.	227,000	*	147,000	80,000	*
QFinance, Inc. (2)	3,803,000	4.9	2,275,000	1,528,000	2.0
Warburg Pincus Private Equity VIII, L.P. (3)	23,384,887	30.4	23,384,887	0	*
Winchester Global Trust Company Limited as Trustee for					
Caduceus Capital Trust	1,825,000	2.4	1,015,000	810,000	1.1
TOTAL	32,129,887		28,301,887	3,828,000	
			========		

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purchases or sales of Triangle's common stock.

^{*} Represents beneficial ownership of less than one percent.

(1) Assumes the sale of all shares offered by this prospectus and no other

⁽²⁾ Includes 20,000 shares of common stock and 8,000 shares of common stock

issuable upon the exercise of options beneficially owned by Dennis B. Gillings. QFinance, Inc. is a wholly-owned subsidiary of Quintiles Transnational Corp. Dr. Gillings, a director of Triangle, is Chairman of Quintiles Transnational Corp. Dr. Gillings disclaims beneficial ownership of shares beneficially owned by QFinance, Inc.

(3) Warburg, Pincus & Co. is the sole general partner of Warburg Pincus Private Equity VIII, L.P., which is managed by Warburg Pincus LLC. Lionel I. Pincus is the managing partner of Warburg, Pincus & Co. and the managing member of Warburg Pincus LLC, and may be deemed to control both entities. Jonathan S. Leff, a director of Triangle, is a general partner of Warburg, Pincus & Co. and a managing director and member of Warburg Pincus LLC. Stewart J. Hen, a Vice President of Warburg Pincus LLC, is also a director of Triangle.

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VI. PLAN OF DISTRIBUTION

The selling stockholders or donees, pledgees or transferees of any selling stockholders may effect the sale or distribution of the shares directly to purchasers as principals or through one or more underwriters, brokers, dealers or agents from time to time in one or more transactions, which may involve block transactions, or

- (i) on any exchange or in the over-the-counter market,
- (ii) in transactions otherwise than in the over-the counter market,
- (iii) through the writing of put or call options, whether the options are listed on an options exchange or otherwise,
- (iv) through the distribution of the shares by any selling stockholder to its partners, members or shareholders, or
- (v) through a combination of any of the above.

Any of these transactions may be effected at market prices, at prices related to market prices, at prices determined at the time of sale or at negotiated or fixed prices, in each case as determined by the selling stockholder or by agreement between the selling stockholder and underwriters, brokers, dealers, agents or purchasers. If the selling stockholders effect transactions by selling shares to or through underwriters, brokers, dealers or agents, the underwriters, brokers, dealers or agents may receive compensation in the form of discounts, concessions or commissions from the selling stockholders or commissions from purchasers of shares for whom they may act as agent, which discounts, concessions or commissions as to particular underwriters, brokers, dealers or agents may be in excess of those customary in the types of transactions involved. Brokers, dealers or agents and any other participating brokers, dealers or the selling stockholders may be deemed to be "underwriters" within the meaning of Section 2(11) of the Securities Act, in connection with sales of the shares. Accordingly, any commission, discount or concession received by them and any profit on the resale of the shares purchased by them may be deemed to be underwriting discounts or commissions under the Securities Act. Because 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 the prospectus delivery requirements of the Securities Act.

The selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions. In connection with hedging transactions, broker-dealers or other financial institutions may engage in short

sales of Triangle's common stock in the course of hedging the positions they assume with selling stockholders. The selling stockholders may also enter into options or other transactions with broker-dealers or other financial institutions which require the delivery to the broker-dealer or other financial institution of shares offered under this prospectus. The broker-dealer or other financial institution may then resell those shares pursuant to this prospectus, as supplemented or amended to reflect the transaction.

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Under the securities laws of some states, the shares may be sold in those states only through registered or licensed brokers or dealers. In addition, in some states the shares may not be sold unless the shares have been registered or qualified for sale in the state or an exemption from registration or qualification is available and is complied with.

Selling stockholders may also resell all or a portion of the shares in open market transactions in reliance on Rule 144 under the Securities Act, rather than under this prospectus, provided they meet the criteria and conform to the requirements of Rule 144.

Under applicable rules and regulations under the Securities Exchange Act of 1934, as amended, any person engaged in the distribution of the shares may not simultaneously engage in market making activities with respect to our common stock for a period of two business days prior to the commencement of the distribution. In addition, each selling stockholder will be subject to applicable provisions of the Exchange Act and the associated rules and regulations under the Exchange Act, including Regulation M, which provisions may limit the timing of purchases and sales of shares of our common stock by the selling stockholders. We will make copies of this prospectus available to the selling stockholders and have informed them of the need to deliver copies of this prospectus to purchasers at or prior to the time of any sale of the shares.

We will pay all of the expenses incident to the registration, offering and sale of the shares to the public under this prospectus other than commissions, fees and discounts of underwriters, brokers, dealers and agents. We have agreed to indemnify the selling stockholders against a number of liabilities, including liabilities under the Securities Act. The selling stockholders may agree to indemnify any agent, dealer or broker that participates in sales of the shares against liabilities, including liabilities under the Securities Act. We will not receive any of the proceeds from the sale of any of the shares by the selling stockholders.

We have agreed to keep the registration statement of which this prospectus constitutes a part effective until the earlier of the date on which all of the shares may be sold under Rule 144 under the Securities Act or two years from the effective date of the registration statement.

VII. LEGAL MATTERS

For purposes of this offering, Smith, Anderson, Blount, Dorsett, Mitchell & Jernigan, L.L.P., Raleigh, North Carolina, is giving its opinion as to the legality of the selling stockholders' shares.

VIII. EXPERTS

The financial statements incorporated in this prospectus by reference to the Annual Report on Form 10-K of Triangle for the year ended December 31, 2000, have been incorporated in reliance on the report of PricewaterhouseCoopers LLP, independent accountants, given on the authority of that firm as experts in

auditing and accounting.

IX. WHERE YOU CAN FIND MORE INFORMATION

We file reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's public reference rooms in Washington, D.C., New York, New York and Chicago, Illinois. Please call the SEC at 1-800-SEC-0330 for further information on the public reference rooms. Our SEC filings are also available to the public on the SEC's website at http://www.sec.gov.

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X. INFORMATION INCORPORATED BY REFERENCE

The SEC allows us to "incorporate by reference" into this prospectus the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered part of this prospectus. We incorporate by reference the documents listed below and any future filings we make with the SEC under Section 13(a), 13(c), 14, or 15(d) of the Securities Exchange Act of 1934 until this offering is complete.

- 1. Our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2001 filed on May 10, 2001;
- Our Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2001 filed on August 13, 2001;
- Our Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2001 filed on November 9, 2001;
- 4 Our Annual Report on Form 10-K for the fiscal year ended December 31, 2000 filed on February 26, 2001, including information in our Definitive Proxy Statement in connection with our 2001 Annual Meeting of Stockholders;
- Our Current Reports on Form 8-K filed March 21, 2001, August 7, 2001, August 10, 2001, August 24, 2001 and October 10, 2001; and
- 6. The description of our common stock contained in our Registration Statements on Form 8-A filed October 18, 1996, February 10, 1999, June 18, 1999 and August 24, 2001.

The reports and other documents that we file after the date of this prospectus will update and supersede the information in this prospectus.

We will provide a copy of these filings, at no cost, if you so request by writing or telephoning us at:

Triangle Pharmaceuticals, Inc. 4611 University Drive P.O. Box 50530 Durham, North Carolina, 27717 (919) 493-5980 Attn: General Counsel

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WE HAVE NOT AUTHORIZED ANY PERSON TO MAKE A STATEMENT THAT DIFFERS FROM WHAT IS IN THIS PROSPECTUS. IF ANY PERSON DOES MAKE A STATEMENT THAT DIFFERS FROM WHAT IS IN THIS PROSPECTUS, YOU SHOULD NOT RELY ON IT. THIS PROSPECTUS IS NOT AN OFFER TO SELL, NOR IS IT AN OFFER TO BUY, THESE SECURITIES IN ANY STATE IN WHICH THE OFFER OR SALE IS NOT PERMITTED. THE INFORMATION IN THIS PROSPECTUS IS COMPLETE AND ACCURATE AS OF ITS DATE, BUT THE INFORMATION MAY CHANGE AFTER THAT DATE.

28,301,887 Shares

TRIANGLE PHARMACEUTICALS, INC.

COMMON STOCK

PROSPECTUS

DECEMBER ____, 2001

PART II INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.

The following table sets forth all expenses, other than underwriting discounts and commissions, payable by the Registrant in connection with the sale of the common stock being registered. All the amounts shown are estimates, except for the registration fee.

Registration Fee	\$ 27,241
Printing and engraving expenses	5,000
Legal fees and expenses	10,000
Accounting fees and expenses	5,000
Transfer Agent and Registrar Fees	10,000
Miscellaneous Expenses	12,759

TOTAL	\$	70,000
	==	

ITEM 15. INDEMNIFICATION OF OFFICERS AND DIRECTORS.

Section 145 of the Delaware General Corporation Law permits indemnification of officers and directors of Triangle under certain conditions and subject to certain limitations. Section 145 of the Delaware General Corporation Law also provides that a corporation has the power to purchase and maintain insurance on behalf of its officers and directors against any liability asserted against the person and incurred by him or her in his or her capacity as an officer or director, or arising out of his or her status, whether or not the corporation would have the power to indemnify him or her against the liability under the provisions of Section 145 of the Delaware General Corporation Law.

Article VII, Section (1) of the Restated Bylaws of Triangle provides that Triangle shall indemnify its directors and executive officers to the fullest extent not prohibited by the Delaware General Corporation Law. The rights to indemnity thereunder continue as to a person who has ceased to be a director, officer, employee or agent and inure to the benefit of the heirs, executors and administrators of the person. In addition, expenses incurred by a director or officer in defending any civil, criminal, administrative or investigative action, suit or proceeding by reason of the fact that he or she is or was a director or officer of Triangle (or was serving at Triangle's request as a director or officer of another corporation) shall be paid by Triangle in advance of the final disposition of the action, suit or proceeding on receipt of an undertaking by or on behalf of the director or officer to repay the amount if it is ultimately be determined that he or she is not entitled to be indemnified by Triangle as authorized by the relevant section of the Delaware General Corporation Law.

As permitted by Section 102(b)(7) of the Delaware General Corporation Law, Article 5, Section (a) of Triangle's Second Restated Certificate of Incorporation provides that a director of Triangle shall not be personally liable 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 Triangle or its stockholders, (ii) for acts or omissions not in good faith or acts or omissions that involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the Delaware General Corporation Law or (iv) for any transaction from which the director derived any improper personal benefit.

Triangle has entered into indemnification agreements with its directors and executive officers. Generally, the indemnification agreements attempt to provide the maximum protection $\frac{1}{2}$

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permitted by Delaware law as it may be amended from time to time. Under such additional indemnification provisions, however, an individual will not receive indemnification for judgments, settlements or expenses if he or she is found liable to Triangle (except to the extent the court determines he or she is fairly and reasonably entitled to indemnity for expenses), for settlements not approved by Triangle or for settlements and expenses if the settlement is not approved by the court. The indemnification agreements provide for Triangle to advance to the individual any and all reasonable expenses (including legal fees and expenses) incurred in investigating or defending any such action, suit or proceeding. In order to receive an advance of expenses, the individual must

submit to Triangle copies of invoices presented to him or her for such expenses. Also, the individual must repay such advances on a final judicial decision that he or she is not entitled to indemnification.

The Registrant has an insurance policy covering the directors and officers of the Registrant with respect to certain liabilities, including liabilities arising under the Securities Act or otherwise.

ITEM 16. EXHIBITS.

EXHIBIT NO. DESCRIPTION

 $\label{thm:continuous} The \ \text{following documents, unless otherwise indicated, are filed with and made a part of this registration statement:}$

4.1	Second Restated Certificate of Incorporation of Triangle Pharmaceuticals. Reference is made to Exhibit 3.2 to the Registration Statement on Form S-1 filed September 9, 1996.
4.2	Certificate of Amendment to Second Restated Certificate of Incorporation of Triangle Pharmaceuticals. Reference is made to the Current Report on Form 8-K filed October 10, 2001.
4.3	Restated Bylaws of Triangle Pharmaceuticals. Reference is made to Exhibit 3.4 to the Registration Statement on Form S-1 filed September 9, 1996.
4.4	Rights Agreement, dated February 1, 1999 as amended on June 2, 1999 and August 24, 2001, between Triangle Pharmaceuticals and American Stock Transfer & Trust Company. Reference is made to the Current Reports on Form 8-K, filed February 10, 1999, June 18, 1999 and August 24, 2001.
4.5	Purchase Agreement dated August 24, 2001 between Triangle Pharmaceuticals and Warburg Pincus Private Equity VIII, L.P. Reference is made to Exhibit 10.1 to the Current Report on Form 8-K filed August 24, 2001.
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4.6	Form of Purchase Agreement, each dated August 30, 2001, between Triangle Pharmaceuticals and each of QFinance, Inc., Caduceus Capital II, L.P., Winchester Global Trust Company Limited as Trustee for Caduceus Capital Trust, PW Eucalyptus Fund, L.L.C., and PW Eucalyptus Fund, Ltd. Reference is made to Exhibit 10.1 to the Current Report on Form 8-K filed October 10, 2001.
5.1	Opinion of Smith, Anderson, Blount, Dorsett, Mitchell & Jernigan, L.L.P.
23.1	Consent of PricewaterhouseCoopers LLP, Independent Accountants.
23.2	Consent of Smith, Anderson, Blount, Dorsett, Mitchell & Jernigan, L.L.P. Reference is made to Exhibit 5.1.

24.1 Power of Attorney. Reference is made to pages II-5 and II-6 of the Registration Statement on Form S-3 filed on October 18, 2001.

ITEM 17. UNDERTAKINGS.

The undersigned Registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) to include any prospectus required by Section $10\,(a)\,(3)$ of the Securities Act of 1933;
 - (ii) to reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement; and
 - (iii) to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (1)(i) and (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 with or furnished to the Commission by the registrant under Section 13 or 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, 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; and
- (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.

The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing

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of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

The undersigned Registrant hereby undertakes to deliver or cause to be delivered with the prospectus, to each person to whom the prospectus is sent or given, the latest annual report to security holders that is incorporated by reference in the prospectus and furnished pursuant to and meeting the requirements of Rule 14a-3 or Rule 14c-3 under the Securities Exchange Act of 1934; and, where interim financial information required to be presented by

Article 3 of Regulation S-X are not set forth in the prospectus, to deliver, or cause to be delivered to each person to whom the prospectus is sent or given, the latest quarterly report that is specifically incorporated by reference in the prospectus to provide such interim financial information.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, Delaware Corporation Law, the Purchase Agreements or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefor, 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 question has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

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SIGNATURES

Pursuant to the requirements of the Securities Act, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Durham, State of North Carolina, on the 5th day of December, 2001.

TRIANGLE PHARMACEUTICALS, INC.

By: /s/ David W. Barry

David W. Barry

Chairman and Chief Executive Officer

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

Signature Title

/s/ David W. Barry Chairman of th

Chairman of the Board and Chief Executive Officer Dec ----- (Principal Executive Officer)

David W. Barry

/s/ Chris A. Rallis	Director, President and Chief Operating Officer		
Chris A. Rallis			
/s/ Robert F. Amundsen, Jr.		Dec	
Robert F. Amundsen, Jr.	Officer (Principal Financial and Accounting Officer)		
*	Director	Dec	
Anthony B. Evnin	•		
*	Director	Dec	
Standish M. Fleming			
*	Director	Dec	
Dennis B. Gillings			
*	Director	Dec	
Henry G. Grabowski			
*	Director	Dec	
Stewart J. Hen	•		
*	Director	Dec	
Jonathan S. Leff			
*	Director	Dec	
George McFadden	•		
*	Director	Dec	
James L. Tyree			
*By /s/ Chris A. Rallis			
CHRIS A. RALLIS ATTORNEY-IN-FACT			

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EXHIBIT INDEX

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