Registration No. 333-124753

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, DC 20549

Amendment No. 1 to Form S-1 on FORM S-3

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

ACADIA PHARMACEUTICALS INC.

(EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER) 2834

Delaware (State or Other Jurisdiction of Incorporation or Organization)

(Primary Standard Industrial Classification Code Number) 06-1376651 (I.R.S. Employer Identification Number)

Classification Code Number) 3911 Sorrento Valley Boulevard, San Diego, CA 92121 (858) 558-2871

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

Uli Hacksell, Ph.D.

Chief Executive Officer ACADIA Pharmaceuticals Inc.

3911 Sorrento Valley Boulevard, San Diego, CA 92121

(858) 558-2871

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

Copies to:

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Approximate date of commencement of proposed sale to the public:

As soon as practicable after the 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.

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.

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.

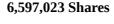
If delivery of the prospectus is expected to be made pursuant to Rule 434, check the following box. \Box

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

The information in this prospectus is not complete and may be changed. The selling stockholders may not sell the securities under this prospectus until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell securities, and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Prospectus

SUBJECT TO COMPLETION, DATED JUNE 1, 2005





The selling stockholders identified in this prospectus are offering for sale from time to time up to 6,597,023 shares of our common stock, \$0.0001 par value per share, which includes 5,277,621 shares of our common stock held by the selling stockholders and 1,319,402 shares of our common stock issuable to the selling stockholders upon the exercise of warrants. The selling stockholders have indicated that sales of their shares of common stock may be made by the methods described in the section entitled "Plan of Distribution" in this prospectus.

The selling stockholders acquired their shares from us in a private placement that closed on April 20, 2005 and is more fully described on page 23 of this prospectus under the heading "Selling Stockholders."

Our common stock is listed on The Nasdaq National Market under the symbol "ACAD". On May 31, 2005, the last reported sale price for our common stock was \$8.73. You are encouraged to obtain current market quotations for shares of our common stock.

Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 1.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved these securities or determined if this prospectus is accurate or complete. Any representation to the contrary is a criminal offense.

, 2005

You should rely only on the information contained or incorporated by reference in this prospectus. We have not, and the selling stockholders have not, authorized anyone to provide you with different information. No one is making offers to sell or seeking offers to buy these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information contained in this prospectus is accurate as of the date on the front of this prospectus only and that any information we have incorporated by reference is accurate as of the date of the document incorporated by reference only, regardless of the time of delivery of this prospectus or any sale of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

References in this prospectus to "ACADIA," "the Company," "we," "us" and "our" refer to ACADIA Pharmaceuticals Inc., together with our wholly-owned subsidiary, ACADIA Pharmaceuticals A/S.

"ACADIA" and "R-SAT" are our trademarks. This prospectus also includes trademarks and trade names owned by other parties, and these trademarks and trade names are the property of their respective owners. Use or display by us of other parties' trademarks, trade dress or products in this prospectus is not intended to, and does not imply a relationship with, or endorsements or sponsorship of, us by the trademark or trade dress owners.

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Our Corporate Information

We were originally incorporated in Vermont in 1993 as Receptor Technologies, Inc. In 1997, we reincorporated in Delaware and changed our name to ACADIA Pharmaceuticals Inc. Our principal executive offices are located at 3911 Sorrento Valley Boulevard, San Diego, California 92121, and our telephone number at that address is (858) 558-2871. We also have chemistry research facilities located near Copenhagen, Denmark. Our website is located at www.acadiapharm.com. We do not consider information contained on, or that can be accessed through, our website to be part of this prospectus.

RISK FACTORS

You should consider carefully the following information about the risks described below, together with the other information contained in this prospectus and in our other public filings in evaluating our business. If any of the following risks actually occurs, our business, financial condition, results of operations and future growth prospects would likely be materially and adversely affected. In these circumstances, the market price of our common stock would likely decline.

Risks Related to Our Business

We expect our net losses to continue for at least several years and are unable to predict the extent of future losses or when we will become profitable, if ever.

We have experienced significant net losses since our inception. As of March 31, 2005, we had an accumulated deficit of approximately \$99.9 million. We expect our annual net losses to increase over the next several years as we expand our research and development activities, incur significant preclinical and clinical development costs, and enhance our infrastructure.

We have not received, and do not expect to receive for at least the next several years, any revenues from the commercialization of our drug candidates. For the year ended December 31, 2004, we received 98 percent of our revenues from our collaborations with Allergan, Inc. All of our revenues for the three months ended March 31, 2005 were from our agreements with Allergan, Sepracor Inc. and The Stanley Medical Research Institute, or SMRI. We anticipate that collaborations with pharmaceutical companies will continue to be our primary source of revenues for the next several years, which provide us with research funding and potential milestone payments and royalties. We cannot be certain that the milestones required to trigger payments will be reached or that we will secure additional collaboration agreements. To obtain revenues from our drug candidates, we must succeed, either alone or with others, in developing, obtaining regulatory approval for, and manufacturing and marketing drugs with significant market potential. We may never succeed in these activities, and may never generate revenues that are significant enough to achieve profitability.

Our most advanced clinical products are in clinical trials, which are long, expensive and unpredictable, and there is a high risk of failure.

Preclinical testing and clinical trials are long, expensive and unpredictable processes that can be subject to delays. It may take several years to complete the preclinical testing and clinical development necessary to commercialize a drug, and delays or failure can occur at any stage. Interim results of clinical trials do not necessarily predict final results, and success in preclinical testing and early clinical trials does not ensure that later clinical trials will be successful. A number of companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in advanced clinical trials even after promising results in earlier trials.

All of our drug candidates are at an early stage of development and the historical rate of failures for drug candidates is extremely high. Our three Phase IIstage clinical programs are ACP-103 for treatment-induced dysfunctions in Parkinson's disease, ACP-103 as an adjunctive therapy for schizophrenia, and ACP-104 for the treatment of schizophrenia.

In connection with clinical trials, we face risks that:

- a drug candidate may not prove to be efficacious;
- patients may die or suffer other adverse effects for reasons that may or may not be related to the drug candidate being tested;
- the results may not confirm the positive results of earlier trials; and
- the results may not meet the level of statistical significance required by the Food and Drug Administration, or FDA, or other regulatory agencies.



If we do not successfully complete preclinical and clinical development, we will be unable to market and sell products derived from our drug candidates and to generate product revenues. Even if we do successfully complete Phase I and Phase II clinical trials, those results are not necessarily predictive of results of future trials. Of the large number of drugs in development, only a small percentage result in the submission of a new drug application to the FDA and even fewer are approved for commercialization.

Delays, suspensions and terminations in our clinical trials could result in increased costs to us and delay our ability to generate product revenues.

- The commencement of clinical trials can be delayed for a variety of reasons, including delays in:
 - demonstrating sufficient safety and efficacy to obtain regulatory approval to commence a clinical trial;
- reaching agreement on acceptable terms with prospective contract research organizations and clinical trial sites;
- manufacturing sufficient quantities of a drug candidate;
- obtaining approval of an Investigational New Drug Application, or IND, from the FDA;
- obtaining institutional review board approval to conduct a clinical trial at a prospective site; and
- insufficient patient enrollment, which is a function of many factors, including the size of the patient population, the nature of the protocol, the
 proximity of patients to clinical sites, the availability of effective treatments for the relevant disease and the eligibility criteria for the clinical trial.

Once a clinical trial has begun, it may be delayed, suspended or terminated due to a number of factors, including:

- ongoing discussions with regulatory authorities regarding the scope or design of our clinical trials or requests by them for supplemental information with respect to our clinical trial results;
- failure to conduct clinical trials in accordance with regulatory requirements;
- lower than anticipated retention rate of patients in clinical trials;
- serious adverse events or side effects experienced by participants; and
- insufficient supply or deficient quality of drug candidates or other materials necessary for the conduct of our clinical trials.

Many of these factors may also ultimately lead to denial of regulatory approval of a current or potential drug candidate. If we experience delays in our clinical trials, the commercial prospects for our drug candidates will be harmed, and our ability to generate product revenues will be delayed.

If we fail to obtain the capital necessary to fund our operations, we will be unable to successfully develop products.

We have consumed substantial amounts of capital since our inception. For the year ended December 31, 2004, we used \$20.7 million in cash, cash equivalents and investment securities to fund our operating activities. We expect to use between \$26 and \$30 million of our cash resources to fund operations during 2005. Although we believe our existing cash resources and anticipated payments from existing agreements with our collaborators will be sufficient to fund our anticipated cash requirements through at least mid-2007, we will require significant additional financing in the future to continue to fund our operations. Our future capital requirements will depend on, and could increase significantly as a result of, many factors, including:

- progress in, and the costs of, our preclinical studies and clinical trials and other research and development programs;
- the scope, prioritization and number of our research and development programs;

- the ability of our collaborators and us to reach the milestones, and other events or developments, triggering payments under our collaboration agreements or to otherwise make payments under these agreements;
- the costs involved in filing, prosecuting, enforcing and defending patent claims and other intellectual property rights;
- the costs of securing manufacturing arrangements for clinical or commercial production; and
- the costs of establishing or contracting for sales and marketing capabilities if we obtain regulatory clearances to market our drug candidates.

Until we can generate significant continuing revenues, we expect to satisfy our future cash needs through strategic collaborations, private or public sales of our securities, debt financings, or by licensing all or a portion of our drug candidates or technology. We cannot be certain that additional funding will be available to us on acceptable terms, if at all. If funds are not available, we may be required to delay, reduce the scope of, or eliminate one or more of our research or development programs or our commercialization efforts. Additional funding may significantly dilute existing stockholders.

We depend on collaborations with third parties to develop and commercialize selected drug candidates and to provide the majority of our revenues.

A key aspect of our strategy is to selectively enter into collaborations with third parties. We currently rely, and will continue to rely, on our collaborators for financial resources and for development, commercialization and regulatory expertise for selected drug candidates. For the year ended December 31, 2004, we received 98 percent of our revenues from our collaborations with Allergan. For the three months ended March 31, 2005, we received 43 percent, 35 percent, and 22 percent of our revenues from our agreements with Allergan, Sepracor, and SMRI, respectively. We expect that nearly all of our revenues for the foreseeable future will be generated by collaborations, although there is no guarantee that revenues from our collaborations will continue at current or past levels.

Our collaborators may fail to develop or effectively commercialize products using our drug candidates or technologies because they:

- do not have sufficient resources or decide not to devote the necessary resources due to internal constraints such as limited cash or human resources;
- decide to pursue a competitive product developed outside of the collaboration; or
- cannot obtain the necessary regulatory approvals.

The continuation of our collaborations is dependent on our collaborators' periodic renewal of the governing agreements. Allergan and Sepracor can terminate our existing collaborations before the full term of these collaborations under specific circumstances, including in some cases the right to terminate upon notice. We may not be able to renew these collaborations on acceptable terms, if at all. We also face competition in our search for new collaborators.

If conflicts arise with our collaborators, they may act in their self interests, which may be adverse to our interests.

Conflicts may arise in our collaborations due to one or more of the following:

- disputes with respect to payments that we believe are due under the applicable agreements;
- disagreements with respect to ownership of intellectual property rights;
- unwillingness on the part of a collaborator to keep us informed regarding the progress of its development and commercialization activities, or to
 permit public disclosure of these activities;
- · delay of a collaborator's development or commercialization efforts with respect to our drug candidates; or
- termination or non-renewal of the collaboration.

Conflicts arising with our collaborators could harm our reputation, result in a loss of revenues, reduce our cash position and cause a decline in our stock price.

In addition, in each of our collaborations, we generally have agreed not to conduct independently, or with any third party, any research that is directly competitive with the research conducted under our collaborations. Our collaborations may have the effect of limiting the areas of research that we may pursue, either alone or with others. Our collaborators, however, may develop, either alone or with others, products in related fields that are competitive with the products or potential products that are the subject of these collaborations.

We have collaborations with Allergan for the development of drug candidates related to neuropathic pain and opthalmic diseases, including glaucoma. Allergan currently markets therapeutic products to treat glaucoma and is engaged in other research programs related to glaucoma and other ophthalmic products that are independent from our development program in this therapeutic area. Allergan is also pursuing other research programs related to pain management that are independent from our collaboration in this therapeutic area. Our collaboration with Sepracor includes an option to pursue a combination drug to treat sleep disorders. Sepracor currently markets a therapeutic product to treat sleep disorders and is engaged in other research programs related to this field that are independent from our development program in this therapeutic area. Competing products, either developed by our collaborators or to which our collaborators have rights, may result in the allocation of resources to competing products and their withdrawal of support for our drug candidates.

We rely on third parties to coordinate our clinical trials and perform data collection and analysis, which may result in costs and delays that prevent us from successfully commercializing drug candidates.

Although we design and manage our current preclinical studies and clinical trials, we currently do not have the ability to coordinate clinical trials for our drug candidates. In addition to our collaborators, we rely on contract research organizations, medical institutions, clinical investigators and contract laboratories to perform data collection and analysis and other aspects of our clinical trials. In addition, we also rely on third parties to assist with our preclinical studies, including studies regarding biological activity, safety, absorption, metabolism and excretion of drug candidates.

Our preclinical development activities or clinical trials may be delayed, suspended or terminated if:

- these third parties do not successfully carry out their contractual duties or fail to meet regulatory obligations or expected deadlines;
- these third parties need to be replaced; or
- the quality or accuracy of the data obtained by third parties is compromised due to their failure to adhere to our clinical protocols or regulatory requirements or for other reasons.

Failure to perform by these third parties may increase our development costs, delay our ability to obtain regulatory approval and prevent the commercialization of our drug candidates. We currently use several contract research organizations to perform services for our preclinical studies and clinical trials. While we believe that there are numerous alternative sources to provide these services, in the event that we seek such alternative sources, we may not be able to enter into replacement arrangements without delays or additional expenditures.

Even if we successfully complete the clinical trials of our drug candidates, they may fail for other reasons.

Even if we successfully complete the clinical trials of our drug candidates, they may fail for other reasons, including the possibility that the drug candidates will:

- fail to receive the regulatory clearances required to market them as drugs;
- be subject to proprietary rights held by others requiring the negotiation of a license agreement prior to marketing;

- be difficult or expensive to manufacture on a commercial scale;
- have adverse side effects that make their use less desirable; or
- fail to compete with drug candidates or other treatments commercialized by our competitors.

Our drug candidates may not gain acceptance among physicians, patients and the medical community, thereby limiting our potential to generate revenues.

Even if our drug candidates are approved for commercial sale by the FDA or other regulatory authorities, the degree of market acceptance of any approved drug candidate by physicians, healthcare professionals and third-party payors and our profitability and growth will depend on a number of factors, including:

- our ability to provide acceptable evidence of safety and efficacy;
- relative convenience and ease of administration;
- the prevalence and severity of any adverse side effects;
- availability of alternative treatments;
- pricing and cost effectiveness, which may be subject to regulatory control;
- effectiveness of our or our collaborators' sales and marketing strategy; and
- our ability to obtain sufficient third-party insurance coverage or reimbursement.

If any drug candidate that we discover and develop does not provide a treatment regimen that is as beneficial as the current standard of care or otherwise does not provide patient benefit, that product will not achieve market acceptance and we will not generate sufficient revenues to achieve or maintain profitability.

We do not know whether one of our drug candidates, ACP-104, will have the same adverse effects as clozapine, a currently available therapy.

One of our drug candidates under development is ACP-104 for the treatment of schizophrenia. ACP-104 is formed in the body from clozapine, a generic drug that is currently approved as a "second-line" therapy for schizophrenia in the United States. This means that clozapine will only be prescribed to a patient after a doctor determines that the patient has failed to progress under a "first-line" therapy consisting of antipsychotic drugs. Clozapine is associated with the occurrence of a rare and potentially fatal blood disorder leading to a complete loss of white blood cells, known as agranulocytosis, in approximately one percent of patients treated with clozapine. As a result, patients being treated with clozapine are subject to weekly or bi-weekly blood monitoring. In addition, one of the other side effects of clozapine is the occurrence of seizures, which is found in approximately five percent of users. ACP-104 may have the same adverse effects of clozapine or other significant adverse effects and, if successfully developed, may also only be approved as a "second-line" therapy. These factors could substantially limit the commercial potential of ACP-104 and may substantially restrict its potential market.

If we are unable to attract, retain and motivate key management and scientific staff, our drug development programs and our research and discovery efforts may be delayed and we may be unable to successfully develop or commercialize our drug candidates.

Our success depends on our ability to attract, retain and motivate highly qualified management and scientific personnel. In particular, our drug discovery and development programs depend on our ability to attract and retain highly skilled chemists, biologists, pharmacologists and development personnel, especially in the fields of central nervous system disorders, including neuropsychiatric and pain disorders. In addition, we will need to hire additional personnel as we continue to expand our clinical development and other research and development activities. We face competition for experienced scientists and other technical personnel from

numerous companies and academic and other research institutions. Competition for qualified personnel is particularly intense in the San Diego, California area. If we are unable to attract and retain the necessary personnel, this will significantly impede the achievement of our research and development objectives and our ability to meet the demands of our collaborators in a timely fashion.

Although we have employment agreements with key members of management, all of our employees are "at will" employees, which means that any employee may quit at any time and we may terminate any employee at any time. We do not carry "key person" insurance covering members of senior management.

We do not know whether our drug discovery platform will lead to the discovery or development of commercially viable drug candidates.

Our drug discovery platform uses new and unproven methods to identify and develop drug candidates. We have never successfully completed clinical development of any of our drug candidates, and there are no drugs on the market that have been discovered using our drug discovery platform.

Much of our research focuses on small molecule drugs for the treatment of central nervous system disorders. Due to our limited resources, we may have to forego potential opportunities with respect to discovering drug candidates to treat diseases or conditions in other areas. If we are not able to use our technologies to discover and develop drug candidates that can be commercialized, we may not achieve profitability. In the future, we may find it necessary to license the technology of others or acquire additional drug candidates to augment the results of our internal discovery activities. If we are unable to identify new drug candidates using our drug discovery platform, we may be unable to establish or maintain a clinical development pipeline or generate product revenues.

We may not be able to continue or fully exploit our collaborations with outside scientific and clinical advisors, which could impair the progress of our clinical trials and our research and development efforts.

We work with scientific and clinical advisors at academic and other institutions who are experts in the field of central nervous system disorders. They assist us in our research and development efforts and advise us with respect to our clinical trials. These advisors are not our employees and may have other commitments that would limit their future availability to us. Although our scientific and clinical advisors and collaborators generally agree not to engage in competing work, if a conflict of interest arises between their work for us and their work for another entity, we may lose their services, which may impair our reputation in the industry and delay the clinical development of our drug candidates.

We will need to increase the size of our organization, and we may encounter difficulties managing our growth, which could adversely affect our results of operations.

We will need to expand and effectively manage our operations and facilities in order to advance our drug development programs, achieve milestones under our collaboration agreements, facilitate additional collaborations and pursue other development activities. It is possible that our human resources and infrastructure may be inadequate to support our future growth. To manage our growth, we will be required to continue to improve our operational, financial and management controls, reporting systems and procedures in at least two countries and to attract and retain sufficient numbers of talented employees. In addition, we may have to develop sales, marketing and distribution capabilities if we decide to market any drug that we may successfully develop without partnering with third parties. We may not successfully manage the expansion of our operations and, accordingly, may not achieve our research, development and commercialization goals.

We face financial and administrative challenges in coordinating the operations of our European activities with our activities in California, which could have on adverse impact on our operations.

Our European operations account for approximately 33 percent of our total personnel and are engaged in research and development activities, with primary responsibility for combinatorial, medicinal and analytical

chemistry. Our principal executive offices, however, are located in San Diego. The additional administrative expense required to follow and coordinate activities in both Europe and California could divert management resources from other important endeavors and, in turn, delay any development and commercialization efforts. In addition, currency fluctuations involving our European operations may cause foreign currency translation gains and losses. These exchange-rate fluctuations could have a negative effect on our operations. We do not engage in currency hedging transactions.

We face financial and administrative challenges in opening our new chemistry research facility in Malmo, Sweden, which could have on adverse impact on our operations.

We have announced that we have entered into a lease for a chemistry research and development facility in Malmo, which is located near our current facilities in the Copenhagen region. We will incur additional costs in setting up and adjusting to operations in a new country with a new Swedish subsidiary. In addition, we may not be able to retain all of our current European employees as we transition to our new facility in Malmo. In addition, like our Danish operations, currency fluctuations involving our Swedish operations may cause foreign currency translation gains and losses. These exchange-rate fluctuations could have a negative effect on our operations. As mentioned above, we do not engage in currency hedging transactions.

We expect that our results of operations will fluctuate, which may make it difficult to predict our future performance from period to period.

Our quarterly operating results have fluctuated in the past and are likely to do so in the future. Some of the factors that could cause our operating results to fluctuate from period to period include:

- the status of development of ACP-103 and ACP-104 and the preclinical and clinical development of our other drug candidates;
- whether we generate revenues by achieving specified research or commercialization milestones under any agreements or otherwise receive potential payments under these agreements;
- the incurrence of preclinical or clinical expenses that could fluctuate significantly from period to period;
- the initiation, termination or reduction in the scope of our collaborations during these periods or any disputes regarding these collaborations;
- the timing of our satisfaction of applicable regulatory requirements;
- the rate of expansion of our clinical development and other internal research and development efforts;
- the effect of competing technologies and products and market developments; and
- general and industry specific economic conditions.

We believe that quarterly comparisons of our financial results are not necessarily meaningful and should not be relied upon as an indication of our future performance.

Relying on third-party manufacturers may result in delays in our clinical trials and product introductions.

We have no manufacturing facilities and have no experience in the manufacturing of drugs or in designing drug-manufacturing processes. We have contracted with third-party manufacturers to produce, in collaboration with us, our drug candidates for clinical trials. If any of our drug candidates are approved by the FDA or other regulatory agencies for commercial sale, we may need to contract with a third party to manufacture them in larger quantities. We currently use third-party manufacturers to produce ACP-103 and ACP-104 for us. While we believe that there are alternative sources available to manufacture our drug candidates, in the event that we seek such alternative sources, we may not be able to enter into replacement arrangements without delays or additional expenditures. We cannot estimate these delays or costs with certainty but do not expect them to be material.

Our manufacturers are obliged to operate in accordance with FDA-mandated current good manufacturing practices, or cGMPs. A failure of any of our contract manufacturers to establish and follow cGMPs and to document their adherence to such practices may lead to significant delays in clinical trials or obtaining regulatory approval of drug candidates or the ultimate launch of our products into the market. Failure by our third-party manufacturers or us to comply with applicable regulations could result in sanctions being imposed on us, including fines, injunctions, civil penalties, failure of the government to grant premarket approval of drugs, delays, suspension or withdrawal of approvals, seizures or recalls of products, operating restrictions and criminal prosecutions.

Our management has broad discretion over the use of our cash and we may not use our cash effectively, which could adversely affect our results of operations.

Our management has significant flexibility in applying our cash resources and could use these resources for corporate purposes that do not increase our profitability or our market value, or in ways with which our stockholders may not agree. We may use our cash resources for corporate purposes that do not yield a significant return or any return at all for our stockholders, which may cause our stock price to decline.

We will incur increased costs as a result of recently enacted and proposed changes in laws and regulations relating to corporate governance and other matters.

Recently enacted and proposed changes in the laws and regulations affecting public companies, including the provisions of the Sarbanes-Oxley Act of 2002, or SOA, and rules adopted or proposed by the SEC and by the Nasdaq Stock Market, will result in increased costs to us as we evaluate the implications of any new rules and respond to their requirements. Although we are not required to issue an evaluation of our internal control over financial reporting under Section 404 of SOA until March 2006, at the earliest, preparations for the issuance of this report have already resulted in increased costs to us, which will increase further. If we are not able to issue an evaluation of our internal control over financial reporting is not effective, this shortcoming could have an adverse effect on our business and financial results and the price of our common stock could be negatively affected. The new rules could make it more difficult or more costly for us to obtain certain types of insurance, including director and officer liability insurance, and we may be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. The impact of these events could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees and as executive officers. We cannot predict or estimate the amount of the additional costs we may incur or the timing of such costs to comply with these rules and regulations.

Changes in stock option accounting treatment may adversely affect our results of operations.

Changes in stock option accounting treatment commencing January 1, 2006 will require us to account for employee stock options as compensation expense in our financial statements. In December 2004, the Financial Accounting Standards Board, or FASB, issued SFAS No. 123 (revised 2004), Share-Based Payment, or SFAS 123(R), which requires that compensation costs relating to share-based payment transactions be recognized in financial statements. We are required to implement SFAS 123(R) in our first quarter of 2006. We are currently evaluating the requirements of SFAS 123(R) and we have not yet fully determined the impact on our consolidated financial statements. However, implementation of SFAS 123(R) could materially and adversely affect our reported results of operations and our timing to achieve profitability.

If we are unable to establish sales and marketing capabilities or enter into agreements with third parties to sell and market any products we may develop, we may not be able to generate product revenue.

We do not currently have an organization for the sales, marketing and distribution of pharmaceutical products. In order to market any products that may be approved by the FDA, we must build our sales, marketing, managerial and other non-technical capabilities or make arrangements with third parties to perform these

services. If we are unable to establish adequate sales, marketing and distribution capabilities, whether independently or with third parties, we may not be able to generate product revenue and may not become profitable.

If we engage in any acquisition, we will incur a variety of costs and may never realize the anticipated benefits of the acquisition.

We may attempt to acquire businesses, technologies, services or products or license in technologies that we believe are a strategic fit with our business. We have limited experience in identifying acquisition targets, successfully completing proposed acquisitions and integrating any acquired businesses, technologies, services or products into our current infrastructure. The process of integrating any acquired business, technology, service or product may result in unforeseen operating difficulties and expenditures and may divert significant management attention from our ongoing business operations. As a result, we will incur a variety of costs in connection with an acquisition and may never realize its anticipated benefits.

Earthquake damage to our facilities could delay our research and development efforts and adversely affect our business.

Our headquarters and research and development facilities in San Diego are located in a seismic zone, and there is the possibility of an earthquake, which could be disruptive to our operations and result in delays in our research and development efforts. In the event of an earthquake, if our facilities or the equipment in our facilities is significantly damaged or destroyed for any reason, we may not be able to rebuild or relocate our facilities or replace any damaged equipment in a timely manner and our business, financial condition and results of operations could be materially and adversely affected. We do not have insurance for damages resulting from earthquakes.

Risks Related to Our Intellectual Property

Our ability to compete may decline if we do not adequately protect our proprietary rights.

Our commercial success depends on obtaining and maintaining proprietary rights to our drug candidates and technologies and their uses, as well as successfully defending these rights against third-party challenges. We will only be able to protect our drug candidates, proprietary technologies and their uses from unauthorized use by third parties to the extent that valid and enforceable patents or effectively protected trade secrets cover them. Although we have filed several patent applications with respect to ACP-104 and ACP-103, we have not been issued any patents with respect to ACP-104, and have been issued only two patents with respect to ACP-103.

Our ability to obtain patent protection for our products and technologies is uncertain due to a number of factors, including:

- we may not have been the first to make the inventions covered by our pending patent applications or issued patents;
- we may not have been the first to file patent applications for our drug candidates or the technologies we rely upon;
- others may independently develop similar or alternative technologies or duplicate any of our technologies;
- our disclosures in patent applications may not be sufficient to meet the statutory requirements for patentability;
- any or all of our pending patent applications may not result in issued patents;
- we may not seek or obtain patent protection in all countries that will eventually provide a significant business opportunity;

- any patents issued to us or our collaborators may not provide a basis for commercially viable products, may not provide us with any competitive advantages or may be challenged by third parties;
- our proprietary technologies may not be patentable;
- others may design around our patent claims to produce competitive products which fall outside of the scope of our patents; or
- others may identify prior art which could invalidate our patents.

Even if we have or obtain patents covering our drug candidates or technologies, we may still be barred from making, using and selling our drug candidates or technologies because of the patent rights of others. Others have or may have filed, and in the future are likely to file, patent applications covering compounds, assays, genes, gene products or therapeutic products that are similar or identical to ours. There are many issued U.S. and foreign patents relating to genes, nucleic acids, polypeptides, chemical compounds or therapeutic products, and some of these may encompass reagents utilized in the identification of candidate drug compounds or compounds that we desire to commercialize. Numerous U.S. and foreign issued patents and pending patent applications owned by others exist in the area of central nervous system disorders and the other fields in which we are developing products. These could materially affect our ability to develop our drug candidates or sell our products. Because patent applications can take many years to issue, there may be currently pending applications, unknown to us, that may later result in issued patents that our drug candidates or technologies may infringe. These patent applications may have priority over patent applications filed by us.

We regularly conduct searches to identify patents or patent applications that may prevent us from obtaining patent protection for our proprietary compounds or that could limit the rights we have claimed in our patents and patent applications. In particular, we are aware of claims that have been allowed by, and are pending before, the United States Patent and Trademark Office that, if issued as currently drafted, would encompass the chemical structure of ACP-103. While we do not believe that these pending claims would be valid if issued in their current form, there can be no assurance that a court would find these claims invalid or that the text or substance of these claims will not be modified upon further prosecution of the application. If valid, these claims could limit our rights with respect to ACP-103.

Disputes may arise regarding the ownership or inventorship of our inventions. It is difficult to determine how such disputes would be resolved. Others may challenge the validity of our patents. If our patents are found to be invalid, we will lose the ability to exclude others from making, using or selling the inventions claimed therein.

Some of our academic institutional licensors, research collaborators and scientific advisors have rights to publish data and information to which we have rights. If we cannot maintain the confidentiality of our technology and other confidential information in connection with our collaborations, then our ability to receive patent protection or protect our proprietary information will be impaired. In addition, technology that we may license in may become important to some aspects of our business. We generally will not control the patent prosecution, maintenance or enforcement of in-licensed technology.

We have limited proprietary rights to one of our drug candidates, ACP-104, which may limit our ability to prevent competitors from exploiting that compound.

One of our drug candidates, ACP-104, is a publicly available compound, and we will have limited proprietary rights in this candidate. Other companies may obtain patents or regulatory approvals to use the same drug for treatments other than to treat the indications for which we have filed for patent protection. We are aware of an issued patent not owned by us that claims the use of N-desmethylclozapine, which is the chemical name for ACP-104, to induce analgesia. ACP-104, which we are developing for treatment of schizophrenia, is formed in the body from clozapine and its structure was known prior to our filing of patent applications relating to its use to treat certain conditions. Accordingly, we will not be able to obtain composition of matter patents for ACP-104. We have filed a method of use patent application for ACP-104, but a competitor could use ACP-104, and patent

its method of use, for a treatment not covered by our patent application. In addition, while we have filed a patent application directed to methods of synthesis of ACP-104, those claims will not prevent a potential competitor from making ACP-104.

Confidentiality agreements with employees and others may not adequately prevent disclosure of our trade secrets and other proprietary information and may not adequately protect our intellectual property, which could limit our ability to compete.

Because we operate in the highly technical field of drug discovery and development of small molecule drugs, we rely in part on trade secret protection in order to protect our proprietary technology and processes. However, trade secrets are difficult to protect. We enter into confidentiality and intellectual property assignment agreements with our corporate partners, employees, consultants, outside scientific collaborators, sponsored researchers and other advisors. These agreements generally require that the other party keep confidential and not disclose to third parties all confidential information developed by the party or made known to the party by us during the course of the party's relationship with us. These agreements may not be honored and may not effectively assign intellectual property rights to us. Enforcing a claim that a party illegally obtained and is using our trade secrets is difficult, expensive and time consuming and the outcome is unpredictable. In addition, courts outside the United States may be less willing to protect trade secrets. The failure to obtain or maintain trade secret protection could adversely affect our competitive position. In addition, we have not entered into any noncompete agreements with any of our employees other than Dr. Brann.

A dispute concerning the infringement or misappropriation of our proprietary rights or the proprietary rights of others could be time consuming and costly, and an unfavorable outcome could harm our business.

There is significant litigation in our industry regarding patent and other intellectual property rights. While we are not currently subject to any pending intellectual property litigation, and are not aware of any such threatened litigation, we may be exposed to future litigation by third parties based on claims that our drug candidates, technologies or activities infringe the intellectual property rights of others. In particular, there are many patents relating to specific genes, nucleic acids, polypeptides or the uses thereof to identify drug candidates. Some of these may encompass genes or polypeptides that we utilize in our drug development activities are found to infringe any such patents, we may have to pay significant damages or seek licenses to such patents. A patentee could prevent us from using the patented genes or polypeptides for the identification or development of drug compounds. There are also many patents relating to chemical compounds and the uses thereof. If our compounds are found to infringe any such patented compounds. We may have to pay significant damages or seek licenses to such patents es to such patents are some or using the patented genes or polypeptides for the identification or development of drug compounds. There are also many patents relating to chemical compounds and the uses thereof. If our compounds are found to infringe any such patents, we may have to pay significant damages or seek licenses to such patents. A patentee could prevent us from making, using or selling the patented compounds. We may need to resort to litigation to enforce a patent issued to us, protect our trade secrets or determine the scope and validity of third-party proprietary rights. From time to time, we may hire scientific personnel formerly employed by other companies involved in one or more areas similar to the activities conducted by us. Either we or these individuals may be subject to allegations of trade secret misappropriation or other similar claims as a result of their prior affiliations. If we b

- payment of damages, potentially treble damages, if we are found to have willfully infringed a party's patent rights;
- injunctive or other equitable relief that may effectively block our ability to further develop, commercialize and sell products; or
- we or our collaborators having to enter into license arrangements that may not be available on commercially acceptable terms, if at all.

As a result, we could be prevented from commercializing current or future products.

The patent applications of pharmaceutical and biotechnology companies involve highly complex legal and factual questions, which, if determined adversely to us, could negatively impact our patent position.

The patent positions of pharmaceutical and biotechnology companies can be highly uncertain and involve complex legal and factual questions. For example, some of our patent applications will cover gene sequences and products and the uses of those gene sequences and products. Public disclosures and patent applications related to the Human Genome Project and other genomics efforts may limit the scope of our claims or make unpatentable subsequent patent applications. No consistent policy regarding the breadth of claims allowed in biotechnology patents has emerged to date. The United States Patent and Trademark Office's standards are uncertain and could change in the future. Consequently, the issuance and scope of patents cannot be predicted with certainty. Patents, if issued, may be challenged, invalidated or circumvented. U.S. patents and patent applications may also be subject to interference proceedings, and U.S. patents may be subject to reexamination proceedings in the United States Patent and Trademark Office (and foreign patents may be subject to opposition or comparable proceedings in the corresponding foreign patent office), which proceedings could result in either loss of the patent or denial of the patent application or loss or reduction in the scope of one or more of the claims of the patent or patent application. In addition, such interference, reexamination and opposition proceedings may be costly. Accordingly, rights under any issued patents may not provide us with sufficient protection against competitive products or processes.

In addition, changes in or different interpretations of patent laws in the United States and foreign countries may permit others to use our discoveries or to develop and commercialize our technology and products without providing any compensation to us. The laws of some countries do not protect intellectual property rights to the same extent as U.S. laws and those countries may lack adequate rules and procedures for defending our intellectual property rights. For example, some countries, including many in Europe, do not grant patent claims directed to methods of treating humans, and in these countries patent protection may not be available at all to protect our drug candidates.

If we fail to obtain and maintain patent protection and trade secret protection of our drug candidates, proprietary technologies and their uses, we could lose our competitive advantage and competition we face would increase, reducing our potential revenues and adversely affecting our ability to attain or maintain profitability.

Risks Related to Our Industry

We will be subject to stringent regulation in connection with the marketing of any products derived from our drug candidates, which could delay the development and commercialization of our products.

The pharmaceutical industry is subject to stringent regulation by the FDA and other regulatory agencies in the United States and by comparable authorities in other countries. Neither we nor our collaborators can market a pharmaceutical product in the United States until it has completed rigorous preclinical testing and clinical trials and an extensive regulatory clearance process implemented by the FDA. Satisfaction of regulatory requirements typically takes many years, depends upon the type, or complexity and novelty of the product and requires substantial resources. Even if regulatory approval is obtained, it may impose significant restrictions on the indicated uses, conditions for use, labeling, advertising, promotion and/or marketing of such products, and requirements for postapproval studies, including additional research and development and clinical trials. These limitations may limit the size of the market for the product or result in the incurrence of additional costs. Any delay or failure in obtaining required approvals could have a material adverse effect on our ability to generate revenues from the particular drug candidate.

Outside the United States, the ability to market a product is contingent upon receiving approval from the appropriate regulatory authorities. The requirements governing the conduct of clinical trials, marketing authorization, pricing and reimbursement vary widely from country to country. Only after the appropriate regulatory authority is satisfied that adequate evidence of safety, quality and efficacy has been presented will it grant a marketing authorization. Approval by the FDA does not automatically lead to the approval by regulatory

authorities outside the United States, and similarly approval by regulatory authorities outside the United States will not automatically lead to FDA approval.

In addition, U.S. and foreign government regulations control access to and use of some human or other tissue samples in our research and development efforts. U.S. and foreign government agencies may also impose restrictions on the use of data derived from human or other tissue samples. Accordingly, if we fail to comply with these regulations and restrictions, the commercialization of our drug candidates may be delayed or suspended, which may delay or impede our ability to generate product revenues.

If our competitors develop and market products that are more effective than our drug candidates, they may reduce or eliminate our commercial opportunity.

Competition in the pharmaceutical and biotechnology industries is intense and expected to increase. We face competition from pharmaceutical and biotechnology companies, as well as numerous academic and research institutions and governmental agencies, both in the United States and abroad. Some of these competitors have products or are pursuing the development of drugs that target the same diseases and conditions that are the focus of our drug development programs.

For example, our potential product for treatment-induced dysfunctions in Parkinson's disease would compete with off-label use of Seroquel, marketed by Astra-Zeneca, and the generic drug clozapine. Our potential products for the treatment of schizophrenia would compete with Zyprexa, marketed by Eli Lilly, Risperdal, marketed by Johnson & Johnson, Seroquel, marketed by Astra-Zeneca, and clozapine. In the area of neuropathic pain, our potential products would compete with Neurontin and Lyrica (pregabalin), marketed by Pfizer, and Cymbalta, marketed by Eli Lilly, as well as a variety of generic or proprietary opioids. Our potential products for the treatment of glaucoma would compete with Xalatan, marketed by Pfizer, and Lumigan and Alphagan, marketed by Allergan.

Many of our competitors and their collaborators have significantly greater experience than we do in the following:

- identifying and validating targets;
- screening compounds against targets;
- preclinical studies and clinical trials of potential pharmaceutical products; and
- obtaining FDA and other regulatory approvals.

In addition, many of our competitors and their collaborators have substantially greater capital and research and development resources, manufacturing, sales and marketing capabilities, and production facilities. Smaller companies also may prove to be significant competitors, particularly through proprietary research discoveries and collaboration arrangements with large pharmaceutical and established biotechnology companies. Many of our competitors have products that have been approved or are in advanced development and may develop superior technologies or methods to identify and validate drug targets and to discover novel small molecule drugs. Our competitors, either alone or with their collaborators, may succeed in developing drugs that are more effective, safer, more affordable or more easily administered than ours and may achieve patent protection or commercialize drugs sooner than us. Our competitors may also develop alternative therapies that could further limit the market for any drugs that we may develop. Our failure to compete effectively could have a material adverse affect on our business.

Any claims relating to improper handling, storage or disposal of biological, hazardous and radioactive materials used in our business could be costly and delay our research and development efforts.

Our research and development activities involve the controlled use of potentially harmful hazardous materials, including volatile solvents, biological materials such as blood from patients that has the potential to

transmit disease, chemicals that cause cancer and various radioactive compounds. Our operations also produce hazardous waste products. We face the risk of contamination or injury from the use, storage, handling or disposal of these materials. We are subject to federal, state and local laws and regulations governing the use, storage, handling and disposal of these materials and specified waste products. The cost of compliance with these laws and regulations could be significant, and current or future environmental regulations may impair our research, development or production efforts. If one of our employees were accidentally injured from the use, storage, handling or disposal of these materials, the medical costs related to his or her treatment would be covered by our workers' compensation insurance policy. However, we do not carry specific biological or hazardous waste insurance coverage and our general liability insurance policy specifically excludes coverage for damages and fines arising from biological or hazardous waste exposure or contamination. Accordingly, in the event of contamination or injury, we could be subject to criminal sanctions or fines or be held liable for damages, our operating licenses could be revoked, or we could be required to suspend or modify our operations and our research and development efforts.

Consumers may sue us for product liability, which could result in substantial liabilities that exceed our available resources and damage our reputation.

Researching, developing and commercializing drug products entails significant product liability risks. Liability claims may arise from our and our collaborators' use of products in clinical trials and the commercial sale of those products. Consumers may make these claims directly and our collaborators or others selling these products may seek contribution from us if they receive claims from consumers. Although we currently have product liability insurance that covers our clinical trials, we will need to increase and expand this coverage as we commence larger scale trials and if our drug candidates are approved for commercial sale. This insurance may be prohibitively expensive or may not fully cover our potential liabilities. Inability to obtain sufficient insurance coverage at an acceptable cost or otherwise to protect against potential product liability claims could prevent or inhibit the commercialization of products that we or our collaborators develop. Product liability claims could have a material adverse effect on our business and results of operations. Our liability could exceed our total assets if we do not prevail in a lawsuit from any injury caused by our drug products.

Risks Related to Our Common Stock

Our stock price may be particularly volatile because we are a drug discovery and development company.

The market prices for securities of biotechnology companies in general, and early-stage drug discovery and development companies in particular have been highly volatile and may continue to be highly volatile in the future. The following factors, in addition to other risk factors described in this section, may have a significant impact on the market price of our common stock:

- the development status of our drug candidates, including results of our clinical trials for ACP-103, ACP-104, and our neuropathic pain collaboration;
- market conditions or trends related to biotechnology and pharmaceutical industries, or the market in general;
- announcements of technological innovations, new commercial products or other material events by our competitors or us;
- disputes or other developments concerning our proprietary rights;
- changes in, or failure to meet, securities analysts' or investors' expectations of our financial performance;
- additions or departures of key personnel;
- discussions of our business, products, financial performance, prospects or stock price by the financial and scientific press and online investor communities such as chat rooms;

- public concern as to, and legislative action with respect to, genetic testing or other research areas of biopharmaceutical companies, the pricing and availability of prescription drugs or the safety of drugs and drug delivery techniques;
- regulatory developments in the United States and foreign countries; or
- economic and political factors, including wars, terrorism and political unrest.

In the past, following periods of volatility in the market price of a particular company's securities, securities class action litigation has often been brought against that company. We may become subject to this type of litigation, which is often extremely expensive and diverts management's attention.

If our officers, directors and largest stockholders choose to act together, they may be able to control our management and operations, acting in their best interests and not necessarily those of other stockholders.

Our directors, executive officers and holders of five percent or more of our outstanding common stock, as of April 20, 2005, and their affiliates beneficially owned approximately 47.5 percent of our common stock, based on their beneficial ownership at that time. As a result, these stockholders, acting together, have the ability to significantly influence all matters requiring approval by our stockholders, including the election of all of our directors, amendments to our certificate of incorporation, going-private transactions and the approval of mergers or other business combination transactions. The interests of this group of stockholders may not always coincide with our interests or the interests of other stockholders, and they may act in a manner that advances their best interests and not necessarily those of other stockholders.

If our stockholders sell substantial amounts of our common stock, the market price of our common stock may decline.

A significant number of shares of our common stock are held by a small number of stockholders. Sales of a significant number of shares of our common stock, or the expectation that such sales may occur, could significantly reduce the market price of our common stock. As of May 1, 2005, holders of approximately 10 million shares of our common stock have rights to cause us to file a registration statement, other than the registration statement that includes this prospectus, on their behalf for those shares or include those shares in registration statements that we may file on our behalf or on behalf of other stockholders. In addition, our stock price may decline as a result of the sale of the shares of our common stock offered by this prospectus.

Anti-takeover provisions in our charter documents and under Delaware law may make an acquisition of us more complicated and may make the removal and replacement of our directors and management more difficult.

Our amended and restated certificate of incorporation and amended and restated bylaws contain provisions that may delay or prevent a change in control, discourage bids at a premium over the market price of our common stock and adversely affect the market price of our common stock and the voting and other rights of the holders of our common stock. These provisions may also make it difficult for stockholders to remove and replace our board of directors and management. These provisions:

- establish that members of the board of directors may be removed only for cause upon the affirmative vote of stockholders owning at least a majority
 of our capital stock;
- authorize the issuance of "blank check" preferred stock that could be issued by our board of directors to increase the number of outstanding shares and prevent or delay a takeover attempt;
- limit who may call a special meeting of stockholders;
- establish advance notice requirements for nominations for election to the board of directors or for proposing matters that can be acted upon at stockholder meetings;

- prohibit our stockholders from making certain changes to our amended and restated certificate of incorporation or amended and restated bylaws except with 66²/3 percent stockholder approval; and
- provide for a board of directors with staggered terms.

We are also subject to provisions of the Delaware corporation law that, in general, prohibit any business combination with a beneficial owner of 15 percent or more of our common stock for three years unless the holder's acquisition of our stock was approved in advance by our board of directors. Although we believe these provisions collectively provide for an opportunity to receive higher bids by requiring potential acquirors to negotiate with our board of directors, they would apply even if the offer may be considered beneficial by some stockholders.

NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference herein contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. These statements relate to future events or to our future financial performance and involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performances or achievements expressed or implied by the forward-looking statements. Forward-looking statements include, but are not limited to statements about:

- the progress of clinical trials involving our drug candidates;
- the progress of our research and development programs;
- the benefits to be derived from relationships with our collaborators;
- the receipt of regulatory clearances and approvals;
- our estimates of future revenues and profitability; and
- our estimates regarding our capital requirements and our need for additional financing.

In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "could," "would," "expects," "plans," "anticipates," "believes," "estimates," "projects," "predicts," "potential" and similar expressions intended to identify forward-looking statements. These statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We discuss many of these risks in this prospectus in greater detail under the heading "Risk Factors." Also, these forward-looking statements represent our estimates and assumptions only as of the date of the document containing the applicable statement.

You should read this prospectus, the registration statement of which this prospectus is a part, and the documents incorporated by reference herein completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in this prospectus by these cautionary statements.

You should rely only on the information contained, or incorporated by reference, in this prospectus. We have not, and the selling stockholders have not, authorized anyone to provide you with different information. These securities are not being offered in any state where the offer is not permitted. You should not assume that the information provided by this prospectus is accurate as of any date other than the date on the front of this prospectus or that any information incorporated by reference in this prospectus is accurate as of any date other than the date of the document incorporated by reference.

USE OF PROCEEDS

The proceeds from the sale of the common stock offered pursuant to this prospectus are solely for the accounts of the selling stockholders. We will not receive any proceeds from the sale of these shares of common stock. However, in the event that all of the warrants to purchase up to 1,319,402 shares of common stock, which could be sold pursuant to this prospectus, are exercised for cash, we will receive proceeds of approximately \$10.8 million.

RELATED PARTY TRANSACTIONS

The following is a description of transactions since January 1, 2002 to which we have been a party and in which any director, executive officer or holder of more than five percent of our capital stock had or will have a direct or indirect material interest, other than compensation arrangements, which are described under "Management." See "Principal Stockholders" for more detail regarding the relationship of some of these parties to our directors, executive offers and principal stockholders.

In March and May 2003, we sold in a private placement 5,212,962 shares of Series F preferred stock at \$5.40 per share for an aggregate purchase price of \$28,150,006 in cash. The shares of Series F preferred stock were sold and issued under a Series F preferred stock purchase agreement dated March 27, 2003. We also issued 375,000 shares of Series E preferred stock to then existing holders of preferred stock that participated in the Series F preferred stock financing. Upon the closing of our initial public offering, each share of Series E preferred stock and Series F preferred stock was reclassified into one share of our common stock. The following table sets forth the names of the principal stockholders that participated in our Series F preferred stock financing and the number of shares they each purchased:

Principal Stockholder (1)	Series F Preferred Stock
Oxford Bioscience Partners IV affiliates	2,314,815
OrbiMed Advisors LLC affiliates	462,963
ABN AMRO Ventures BV	240,741

(1) For additional information regarding these stockholders and their equity holdings, please see "Principal Stockholders" and "Selling Stockholders."

Under our amended and restated stockholders agreement entered into in connection with our Series F preferred stock financing, some of our former preferred stockholders have registration rights. See "Description of Capital Stock—Registration Rights" for a description of these registration rights.

Until April 2004, one of our directors, Dr. Kaplan, was an executive officer and board member of Allergan, with whom we have three ongoing collaborations.

In June 2004, we completed our initial public offering involving investments by certain persons, or groups of affiliated persons, known by us to beneficially own more than five percent of our common stock prior to our initial public offering. The following table provides information regarding the number of shares of common stock purchased in our initial public offering by these stockholders.

Participant	Number of Shares
Oxford Bioscience Partners IV affiliates(1)	285,000
Orbimed Advisors LLC affiliates(1)	150,000
Federated Kaufmann Fund affiliates	250,000
ABN AMRO Ventures BV(1)	140,000

(1) For additional information regarding these stockholders and their equity holdings, please see "Principal Stockholders" and "Selling Stockholders."

On January 10, 2005, we entered into a License, Option and Collaboration Agreement with Sepracor Inc. In connection with the collaboration, Sepracor agreed to purchase up to an aggregate of \$20 million of our common stock in two tranches. In the first tranche, which closed on January 13, 2005, Sepracor purchased \$10 million of our common stock at a 40 percent premium to the average closing sales price for a 30 trading-day period. We issued 1,077,029 shares of our common stock to Sepracor at the closing at a price per share of approximately \$9.2848. This transaction made Sepracor a five percent stockholder at that time. The second tranche is scheduled to close in January 2006, subject to customary closing conditions.

On April 20, 2005, we completed a private placement involving investments by certain persons, or groups of affiliated persons, known by us to beneficially own more than five percent of our common stock prior to or following the private placement. The following table provides information regarding the number of shares of common stock and warrants to purchase shares of common stock that were acquired in the private placement by these stockholders.

Principal Stockholder (1)	Number of Shares	Number of Warrants
Oxford Bioscience Partners IV	586,402	146,600
Nomura Phase4 Ventures LP	2,199,010	549,752
Biotechnology Value Fund affiliates	952,904	238,226
Orbimed Advisors LLC affiliates	359,603	89,900
T. Rowe Price New Horizons Fund	520,000	130,000
ABN AMRO Ventures BV	366,501	91,625

(1) For additional information regarding these stockholders and their equity holdings, please see "Principal Stockholders" and "Selling Stockholders."

Some of our directors are associated with our principal stockholders as follows: Martien van Osch is Vice President and Senior Investment Manager of ABN AMRO Capital, a company majority owned by ABN AMRO NV, which is the majority owner of ABN AMRO Ventures BV; and Alan G. Walton is the General Partner of Oxford Bioscience Partners IV and mRNA Fund II L.P. In addition to the foregoing, Carl L. Gordon, who served on our board of directors for approximately five years before resigning in April 2005, is a General Partner of Orbimed Advisors LLC.

During the fiscal year ended December 31, 2004, we granted options to purchase an aggregate of 116,500 shares of common stock to our directors and executive officers, with exercise prices ranging from \$1.08 to \$6.10.

Our bylaws provide that we will indemnify our directors and executive officers, and may indemnify other officers, employees and other agents, to the fullest extent permitted by law. Our bylaws also permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in connection with their services to us, regardless of whether our amended and restated bylaws permit such indemnification. We have obtained a policy of directors' and officers' liability insurance.

We have entered, and intend to continue to enter, into indemnification agreements with our directors and executive officers, in addition to the indemnification provided for in our bylaws. These agreements, among other things, require us to indemnify our directors and executive officers for certain expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by a director or executive officer in any action or proceeding arising out of their services as one of our directors or executive officers, or any of our subsidiaries or any other company or enterprise to which the person provides services at our request.

PRINCIPAL STOCKHOLDERS

Except as otherwise noted, the following table sets forth selected information known to us with respect to beneficial ownership of our common stock at April 20, 2005 by:

- each stockholder we know to be the beneficial owner of more than five percent of our common stock;
- each of our directors;
- each of our named executive officers; and
- all of our executive officers and directors as a group.

Except where otherwise indicated below, the address of the stockholders listed below is our address, 3911 Sorrento Valley Boulevard, San Diego, California 92121.

Applicable percentages are based on 23,338,818 shares outstanding on April 20, 2005, including the 5,277,621 shares issued in the private placement to the selling stockholders. The 1,319,402 shares of common stock issuable upon exercise of the warrants that were issued in the private placement have not been included as they are not exercisable until October 17, 2005. The percentages in the table are adjusted as required by rules promulgated by the SEC, which generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities. In addition, the rules include shares of common stock issuable pursuant to the exercise of stock options or warrants that are either immediately exercisable or exercisable on June 19, 2005, which is 60 days after April 20, 2005. These shares are deemed to be outstanding and beneficially owned by the person holding those options or warrants for the purpose of computing the percentage ownership of that person, but they are not treated as outstanding for the purpose of computing the percentage ownership of any other person. Certain of the options in this table are exercisable at any time but, if exercised, are subject to a lapsing right of repurchase until the options are fully vested. The table is based upon information supplied by our officers, directors and principal stockholders and a review of Schedules 13D and 13G, if any, filed with the SEC.

Name of Beneficial Owner	Number of Shares Beneficially Owned(1)	Percentage of Shares Beneficially Owned
5 Percent Stockholders		
Oxford Bioscience Partners IV affiliates(2)	3,186,217	13.6%
Nomura Phase4 Ventures LP(3)	2,199,010	9.4
Biotechnology Value Fund affiliates(4)	1,811,493	7.8
Orbimed Advisors LLC affiliates(5)	1,395,612	6.0
T. Rowe Price New Horizons Fund(6)	1,312,221	5.6
ABN AMRO Ventures BV(7)	1,168,892	5.0
Directors and Executive Officers		
Uli Hacksell, Ph.D.(8)	445,300	1.8%
Mark R. Brann, Ph.D.(9)	787,757	3.3
Thomas H. Aasen(10)	205,550	*
Robert E. Davis, Ph.D.(11)	181,913	*
Bo-Ragnar Tolf, Ph.D.(12)	90,937	*
Leslie L. Iversen, Ph.D.(13)	23,000	*
Alan G. Walton, Ph.D.(2)	3,195,217	13.7
Martien van Osch(7)	1,177,892	5.0
Gordon Binder(14)	564,555	2.4
Lester J. Kaplan, Ph.D.(15)	16,000	*
Torsten Rasmussen(16)	15,000	*
Mary Ann Gray, Ph.D.	—	*
All current directors and executive officers as a group (13 persons)(17)	6,703,120	27.5%

- (1) Unless otherwise indicated below, the persons and entities named in the table above have sole voting and sole investment power with respect to all shares beneficially owned, subject to community property laws where applicable.
- (2) Includes 2,573,836 shares (including 586,402 shares being offered by this prospectus) owned by Oxford Bioscience Partners IV and 25,979 shares owned by mRNA Fund II L.P. Does not include 146,600 shares issuable upon the exercise of warrants, which shares are being offered pursuant to this prospectus. Dr. Walton's total includes 9,000 shares issuable upon the exercise of stock options issued to Dr. Walton. Dr. Walton is a General Partner of Oxford Bioscience Partners IV and mRNA Fund II L.P., and holds voting and investment power over the shares held by both of these funds. Dr. Walton disclaims beneficial ownership of shares in which he does not have a pecuniary interest. The address for Oxford Bioscience Partners IV and mRNA Fund II L.P. is 222 Berkeley Street, Suite 1650, Boston, MA 02116.
- (3) Includes 2,199,010 shares (all of which are being offered by this prospectus) owned by Nomura Phase4 Ventures LP. Does not include 549,752 shares issuable upon the exercise of warrants, which shares are being offered pursuant to this prospectus. Nomura Phase4 Ventures GP Limited, as the general partner of Nomura Phase4 Ventures LP, has delegated the investment and voting power of the shares held by Nomura Phase4 Ventures LP to Nomura Phase4 Ventures Limited. Nomura Phase4 Ventures Limited is a subsidiary of Nomura International plc which is a subsidiary of Nomura Holdings Inc., a publicly traded company. The address for Nomura Phase4 Ventures LP and Nomura Phase4 Ventures Limited is Nomura House, 1 St. Martins-le-Grand, London, EC1A 4NP, United Kingdom.
- (4) Includes 542,993 (including 285,904 shares being offered by this prospectus) shares owned by Biotechnology Value Fund, L.P., 344,500 shares (including 181,000 shares being offered by this prospectus) owned by Biotechnology Value Fund II, L.P., 833,000 (including 438,000 shares being offered by this prospectus) shares owned by BVF Investments, L.L.C., and 91,000 (including 48,000 shares being offered by this prospectus) shares owned by Investment 10 LLC. Does not include 71,476 shares issuable upon the exercise of warrants by Biotechnology Value Fund, L.P., 45,250 shares issuable upon the exercise of warrants by Biotechnology Value Fund II, L.P., 109,500 shares issuable upon the exercise of warrants by BVF Investments, L.L.C., and 12,000 shares issuable upon the exercise of warrants by Investment 10 LLC, all which shares are being offered pursuant to this prospectus. Mark Lampert as the President of BVF Inc., which is the General Partner of BVF Partners L.P., which is the General Partner for Biotechnology Value Fund, L.P. and Biotechnology Value Fund II, L.P., the Manager of BVF Investments, L.L.C. and the attorney-in-fact for Investment 10 LLC, has sole voting and investment control over the shares held by these four funds. The address for these entities is 227 W. Monroe St., Suite 4800, Chicago, IL 60606.
- (5) Includes 621,606 shares (including 359,603 shares being offered by this prospectus) owned by Eaton Vance Worldwide Health Sciences Fund and 774,006 shares owned by Finsbury Worldwide Pharmaceutical Trust. OrbiMed Advisors LLC provides investment advisory services to Eaton Vance Worldwide Health Sciences Fund and Finsbury Worldwide Pharmaceutical Trust, and holds voting and investment power over the shares held by those funds. The address of OrbiMed Advisors LLC is 767 Third Avenue, 30th Floor, New York, New York 10017-2023.
- (6) Includes 1,312,221 shares (including 520,000 shares being offered by this prospectus) held by Bridge & Co., as nominee for T. Rowe Price New Horizons Fund, Inc. ("New Horizons Fund"). T. Rowe Price Associates, Inc. ("T. Rowe Price Associates") serves as an investment advisor with power to direct investments and/or sole power to vote the shares owned by New Horizons Fund, as well as shares owned by certain other individual and institutional investors for whom it also serves as investment advisor. T. Rowe Price Associates may be deemed the beneficial owner all of the shares listed in the name of New Horizons Fund, however, T. Rowe Price Associates expressly disclaims that it is, in fact, the beneficial owner of such shares. T. Rowe Price Associates is a wholly owned subsidiary of T. Rowe Price Group, Inc., which is a publicly traded financial services holding company. The address of New Horizons Fund is 100 East Pratt Street, Baltimore, MD 21202.
- (7) Includes 1,168,892 shares (including 366,501 shares being offered by this prospectus) owned by ABN AMRO Ventures BV, which is majority owned by ABN AMRO NV, a publicly held company incorporated

Less than one percent.

in the Netherlands. Mr. van Osch's total includes 9,000 shares issuable upon the exercise of stock options issued to Mr. van Osch. Mr. van Osch is Vice President and Senior Investment Manager of ABN AMRO Capital, a company majority owned by ABN AMRO NV, and he disclaims beneficial ownership of shares in which he does not have a pecuniary interest. The address for ABN AMRO Ventures BV is Gustav Mahlerlaan 10, P.O. Box 283 (HQ4039), 1000 EA Amsterdam, The Netherlands.

- (8) Includes 98,216 shares owned by Dr. Hacksell and 347,084 shares issuable upon the exercise of stock options.
- (9) Includes 92,593 shares held by Dr. Brann, 417,756 shares held by Dr. Brann and Anna Maria Frost-Jensen, as trustees of The Brann 2004 Trust Dated January 27, 2004, and 277,408 shares issuable upon the exercise of stock options.
- (10) Includes 50,549 shares owned by Mr. Aasen and 155,001 shares issuable upon the exercise of stock options.
- (11) Includes 108,663 shares owned by Dr. Davis and 73,250 shares issuable upon the exercise of stock options.
- (12) Includes 90,937 shares issuable upon the exercise of stock options.
- (13) Includes 23,000 shares issuable upon the exercise of stock options
- (14) Includes 522,948 shares owned by Coastview Bioscience Partners I, L.P., 18,243 shares owned by Coastview Strategic Fund I, L.P. and 14,364 shares owned by Coastview Advisors Fund I, L.P. Mr. Binder's total includes 9,000 shares issuable upon the exercise of stock options granted to Mr. Binder. Mr. Binder is the Founder and Managing Director of Coastview Bioscience Partners I, L.P., Coastview Strategic Fund I, L.P. and Coastview Advisors Fund I, L.P., and holds voting and investment power over the shares held by these three funds. Mr. Binder disclaims beneficial ownership of shares in which he does not have a pecuniary interest. The address for Coastview Bioscience Partners I, L.P., Coastview Strategic Fund I, L.P. and Coastview Advisors Fund I, L.P. is 11111 Santa Monica Boulevard, Suite 1850, Los Angeles, California 90025.
- (15) Includes 16,000 shares issuable upon the exercise of stock options.
- (16) Includes 15,000 shares issuable to Morgan Management ApS, a Danish corporation in which Mr. Rasmussen has a controlling interest, upon the exercise of stock options.
- (17) Includes 1,024,680 shares issuable upon the exercise of stock options.

SELLING STOCKHOLDERS

On April 15, 2005, we entered into a securities purchase agreement with the selling stockholders named below, pursuant to which we sold an aggregate of 5,277,621 shares of our common stock and issued warrants to purchase up to 1,319,402 shares of our common stock in a private placement transaction. This prospectus covers the offer and sale by the selling stockholders of up to the total number of shares of common stock issued to the selling stockholders pursuant to the securities purchase agreement plus the total number of shares of common stock issued to the selling stockholders pursuant to the securities purchase agreement. Throughout this prospectus, when we refer to the shares of our common stock being registered on behalf of the selling stockholders, we are referring to the shares and the warrant shares, collectively, unless otherwise indicated. The warrants issued to the selling stockholders are exercisable at any time in whole or in part beginning October 17, 2005 and ending April 19, 2010 at an exercise price of \$8.148 per share.

We are registering the above-referenced shares to permit each of the selling stockholders and their pledgees, donees, transferees or other successors-ininterest that receive their shares after the date of this prospectus to resell the shares in the manner contemplated under the "Plan of Distribution."

The selling stockholders may sell some, all or none of their shares. We do not know how long the selling stockholders will hold the shares before selling them. We currently have no agreements, arrangements or understandings with the selling stockholders regarding the sale of any of the shares other than the securities purchase agreement. The shares offered by this prospectus may be offered from time to time by the selling stockholders, although the warrant shares will not be eligible to be offered pursuant to this prospectus until the related warrants become exercisable.

The following table sets forth the name of each selling stockholder, the number of shares owned, including warrant shares that are not yet owned, by each of the respective selling stockholders, the number of shares that may be offered under this prospectus and the number of shares of our common stock to be owned by the selling stockholders after this offering is completed, assuming that all offered shares are sold as contemplated herein. The number of shares in the column "Number of Shares Being Offered" represents all of the shares that a selling stockholder may offer under this prospectus.

Except as otherwise disclosed in this prospectus, none of the selling stockholders has, or within the past three fiscal years has had, any position, office or other material relationship with us.

Ownership is based upon information provided by each respective selling stockholder, Schedules 13D and 13G and other public documents filed with the SEC. Although the warrants held by the selling stockholders are not exercisable until October 17, 2005, the shares of common stock issuable upon exercise of the warrants held by the selling stockholders are included in the table below since those shares of common stock are being offered in this prospectus. The percentages of shares owned after the offering are based on 23,338,818 shares of our common stock outstanding as of April 20, 2005, which includes the outstanding shares of common stock offered by this prospectus but excludes all warrant shares since the related warrants are not currently exercisable and are not exercisable within 60 days from the date hereof.

The selling stockholders may have sold or transferred, in transactions exempt from the registration requirements of the Securities Act of 1933, some or all of their shares since the date on which the information in the table is presented. Information about the selling stockholders may change over time.

		Number of Sl Offer		Shares Own Offerin	
Name	Shares of Common Stock Owned Prior to Offering(1)	Shares	Warrant Shares	Number	Percent
Oxford Bioscience Partners IV LP(3)	3,306,838	586,402	146,600	2,573,836	11.0%
Nomura Phase4 Ventures LP(3)	2,748,762	2,199,010	549,752	_	*
T. Rowe Price New Horizons Fund(3)	1,442,221	520,000	130,000	792,221	3.4
ABN AMRO Ventures BV(3)	1,260,517	366,501	91,625	802,391	3.4
Finsbury Worldwide Pharmaceutical Trust(3)	863,906	359,603	89,900	414,403	1.8
Baker Biotech Fund I, L.P.	158,437	99,064	24,766	34,607	*
Baker Biotech Fund II, L.P.	145,647	91,191	22,797	31,659	*
Baker Biotech Fund III, L.P.	131,669	83,461	20,865	27,343	*
Baker Brothers Investments L.P.	16,111	10,097	2,524	3,490	*
Baker/Tisch Investments, L.P.	15,108	9,388	2,347	3,373	*
BVF Investments, L.L.C.(3)	942,500	438,000	109,500	395,000	1.7
Biotechnology Value Fund, L.P. (3)	614,469	285,904	71,476	257,089	1.1
Biotechnology Value Fund II, L.P.(3)	389,750	181,000	45,250	163,500	*
Investment 10 LLC(3)	103,000	48,000	12,000	43,000	*

* Indicates less than one percent ownership.

(1) Assumes the exercise of all warrants to purchase common stock offered in this prospectus by the selling stockholders. Does not include shares held by affiliates. For additional information on the share holdings of certain of the selling stockholders and their affiliates, please see the Principal Stockholders table.

(2) Assumes the sale of all shares and warrant shares offered by this prospectus.

(3) For additional information regarding these stockholders and their equity holdings, please see "Principal Stockholders."

PLAN OF DISTRIBUTION

The selling stockholders, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

The selling stockholders may use any one or more of the following methods when disposing of shares or interests therein:

- on The Nasdaq National Market (or any other exchange on which the shares may be listed);
- on the over-the-counter market;
- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to
 facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b) or under any applicable provision of the Securities Act amending the list of selling stockholders to include the pledgee, transferee or other successors-in-interest as selling stockholders under this prospectus. The selling stockholders also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus. To the extent required, this prospectus may be amended or supplemented from time to time to describe a specific plan of distribution.

In connection with the sale of shares of our common stock or interests therein, the selling stockholders may enter into hedging transactions with brokerdealers or other financial institutions, which may, in turn, engage in short sales of shares of common stock in the course of hedging the positions they assume. The selling stockholders may also sell shares of our common stock short and deliver these securities to close out their short positions, or loan or pledge shares of common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The aggregate proceeds to the selling stockholders from the sale of the shares of common stock offered by them will be the purchase price of the shares less discounts or commissions, if any. Each of the selling stockholders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering. Upon any exercise of the warrants by payment of cash, however, we will receive the exercise price of the warrants.

The selling stockholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act, provided that they meet the criteria and conform to the requirements of that rule.

The selling stockholders and any underwriters, broker-dealers or agents that participate in the sale of the shares of common stock or interests therein may be "underwriters" within the meaning of Section 2(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. Selling stockholders who are "underwriters" within the meaning of Section 2(11) of the Securities Act. Selling stockholders who are "underwriters" within the meaning of Section 2(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

We will bear substantially all of the costs, expenses and fees in connection with the registration of the shares of common stock, other than any commissions, discounts or other fees payable to broker-dealers in connection with any sale of shares, which will be borne by the selling stockholder selling such shares of common stock. We have agreed to indemnify the selling stockholders against certain liabilities, including liabilities under the Securities Act and state securities laws, relating to the registration of the shares offered by this prospectus.

In order to comply with the securities laws of some states, if applicable, the shares of common stock may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the shares may not be sold unless it has been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

We have advised the selling stockholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares of our common stock in the market and to the activities of the selling stockholders. These rules may limit the timing of purchases and sales of the shares by such selling stockholders.

We will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act.

We have agreed with each selling stockholder to keep the registration statement of which this prospectus constitutes a part effective with respect to its shares of our common stock until the earlier of (1) April 20, 2007, (2) the date on which all shares purchased from us by such selling stockholder in the private placement may be sold pursuant to Rule 144 of the Securities Act without volume limitations, and (3) such time as all of such selling stockholder's shares covered by this prospectus have been disposed of pursuant to and in accordance with the registration statement.

LEGAL MATTERS

Cooley Godward LLP, San Diego, California, has given its opinion to us as to certain legal matters relating to the validity of the shares of our common stock offered by the selling stockholders in this prospectus.

EXPERTS

The financial statements incorporated in this prospectus by reference to our Annual Report on Form 10-K for the year ended December 31, 2004 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We are a reporting company and we file annual, quarterly and current reports, proxy statements and other information with the SEC. We have filed with the SEC a registration statement under the Securities Act with respect to the common stock offered hereby. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits and schedules which are part of the registration statement. For further information with respect to us and the common stock offered by this prospectus by the selling stockholders, we refer you to the registration statement and the exhibits and schedules filed as part of the registration statement. You may read and copy any document we file at the SEC's public reference room at 450 Fifth Street, N.W., Washington, D.C. 20549. 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 from the SEC's website at *http://www.sec.gov*. We maintain a website at www.acadia-pharm.com.

The SEC allows us to "incorporate by reference" the information we file with it, which means that we can disclose important information to you by referring to those documents. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the following documents we filed with the SEC pursuant to Section 13 of the Exchange Act:

- Annual Report on Form 10-K for the fiscal year ended December 31, 2004 (including information specifically incorporated by reference into our Form 10-K from our Proxy Statement for our 2005 Annual Meeting of Stockholders);
- Quarterly Report on Form 10-Q for the quarter ended March 31, 2005;
- Current Reports on Form 8-K filed on January 14, 2005, April 20, 2005, and April 29, 2005;
- Description of our common stock contained in our registration statement on Form 8-A dated May 19, 2004; and
- All documents filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus and before the last offering the securities under this prospectus.

You may access our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statement, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act with the SEC free of charge at the SEC's website or our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The reference to our website does not constitute incorporation by reference of the information contained in our website. We do not consider information contained on, or that can be accessed through, our website to be part of this prospectus.

You may request a copy of our SEC filings at no cost, by writing or telephoning us at the following address:

Investor Relations ACADIA Pharmaceuticals Inc. 3911 Sorrento Valley Boulevard San Diego, CA 92121 (858) 558-2871

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The following table sets forth the costs and expenses, payable by us in connection with the offering of common stock being registered. All amounts are estimates except the registration fee.

	Amount to Be Paid
Registration fee	\$ 5,731
Legal fees and expenses	30,000
Accounting fees and expenses	30,000
Transfer agent fees	25,000
Printing and engraving expenses	30,000
Miscellaneous	4,269
Total	\$ 125,000

Item 15. Indemnification of Directors and Officers

Section 102 of the Delaware General Corporation Law allows a corporation to eliminate the personal liability of directors of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit.

Section 145 of the Delaware General Corporation Law provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against amounts paid and expenses incurred in connection with an action or proceeding to which he is or is threatened to be made a party by reason of such position, if such person shall have acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interest of the corporation, and, in any criminal proceeding, if such person had no reasonable cause to believe his conduct was unlawful; provided that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the adjudicating court determines that such indemnification is proper under the circumstances.

The Registrant's amended and restated certificate of incorporation and bylaws includes provisions that indemnify directors and officers of the corporation for actions taken in such capacity, if the actions were taken in good faith and in a manner reasonably believed to be in the best interests of the corporation and, in a criminal proceeding, the director or officer had no reasonable cause to believe that his conduct was unlawful. A director or officer who is successful in defending a claim will be indemnified for all expenses incurred in connection with his defense. The Registrant has entered into indemnification agreements with its officers and directors that require the Registrant to indemnify such persons against any and all expenses (including attorneys' fees), witness fees, damages, judgments, fines, settlements and other amounts incurred in connection with any action, suit or proceeding, whether actual or threatened, to which any such person may be made a party by reason of the fact that such person is or was or at any time becomes a director, an officer or an employee of the Registrant or any of its affiliated enterprises, provided that such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to our best interest and, with respect to any criminal proceeding, had no reasonable cause to believe his or her conduct was unlawful.

We maintain directors and officers insurance providing indemnification for certain of our directors, officers, affiliates, partners and employees for certain liabilities.

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Item 16. Exhibits

Exhibit Number	Description
4.1	Form of common stock certificate of Registrant (incorporated by reference to Exhibit 4.1 to Registration Statement No. 333-52492).
4.2	Form of Warrant to Purchase Preferred Stock issued to GATX Ventures on May 31, 2002 (incorporated by reference to Exhibit 4.3 to Registration Statement No. 333-113137).
4.3(1)	Form of Warrant to Purchase Common Stock issued to purchasers in private placement on April 20, 2005.
5.1(1)	Opinion of Cooley Godward LLP.
23.1	Consent of Independent Registered Public Accounting Firm.
23.2(1)	Consent of Counsel (included in Exhibit 5.1).
24.1(1)	Power of Attorney.

(1) Previously filed.

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 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.

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

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

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

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to provisions described in Item 14 above or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the 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 of 1933, as amended, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned thereunto duly authorized.

ACADIA PHARMACEUTICALS INC.

/s/ ULI HACKSELL

Uli Hacksell, Ph.D. Chief Executive Officer

Date: June 1, 2005

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

Signature	Title	Date
/s/ ULI HACKSELL	Chief Executive Officer (Principal Executive Officer)	June 1, 2005
Uli Hacksell		
/s/ THOMAS H. AASEN	Chief Financial Officer (Principal Financial Officer and	June 1, 2005
Thomas H. Aasen	Principal Accounting Officer)	
*	Director	June 1, 2005
Gordon Binder		
*	Director	June 1, 2005
Mark R. Brann		
*	Director	June 1, 2005
Mary Ann Gray		
*	Director	June 1, 2005
Leslie Iversen		
*	Director	June 1, 2005
Lester Kaplan		
*	Director	June 1, 2005
Torsten Rasmussen		
*	Director	June 1, 2005
Martien van Osch		
*	Director	June 1, 2005
Alan Walton		
*By: /s/ THOMAS H. AASEN Thomas H. Aasen Attorney in fact		

INDEX TO EXHIBITS

Exhibit Number	Description
3.1	Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.3 to Registration Statement File No. 333-113137).
3.2	Amended and Restated Bylaws (incorporated by reference to Exhibit 3.5 to Registration Statement File No. 333-113137).
4.1	Form of common stock certificate of Registrant (incorporated by reference to Exhibit 4.1 to Registration Statement No. 333-52492).
4.2	Form of Warrant to Purchase Preferred Stock issued to GATX Ventures on May 31, 2002 (incorporated by reference to Exhibit 4.3 to Registration Statement No. 333-113137).
4.3(1)	Form of Warrant to Purchase Common Stock issued to purchasers in private placement on April 20, 2005.
5.1(1)	Opinion of Cooley Godward LLP.
23.1	Consent of Independent Registered Public Accounting Firm.
23.2(1)	Consent of Counsel (included in Exhibit 5.1).
24.1(1)	Power of Attorney (see page II-6).

(1) Previously filed.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this amendment No. 1 to Form S-1 on Registration Statement Form S-3 of our report dated March 18, 2005 relating to the financial statements which appear in ACADIA Pharmaceutical Inc.'s Annual Report on Form 10-K for the year ended December 31, 2004, which is incorporated by reference in such Registration Statement. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ PricewaterhouseCoopers LLP

San Diego, California June 1, 2005