

ACADIA PHARMACEUTICALS INC  
Form 10-K  
March 15, 2006  
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**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**

WASHINGTON, D.C. 20549

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**Form 10-K**

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(Mark One)

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2005

Or

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number: 000-50768

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**ACADIA PHARMACEUTICALS INC.**

(Exact Name of Registrant as Specified in Its Charter)

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Delaware

(State or Other Jurisdiction of  
Incorporation or Organization)

3911 Sorrento Valley Boulevard  
San Diego, California  
(Address of Principal Executive Offices)

06-1376651

(I.R.S. Employer  
Identification Number)

92121  
(Zip Code)

Registrant's telephone number, including area code:

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**Securities registered pursuant to Section 12(b) of the Act: None**

**Securities registered pursuant to Section 12(g) of the Act:**

**Common Stock, par value \$0.0001 per share**

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Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of accelerated filer in Rule 12b-2 of the Securities Exchange Act of 1934:

Large accelerated filer  Accelerated filer  Non-accelerated filer   
Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Securities Exchange Act of 1934). Yes  No

As of June 30, 2005, the last business day of the registrant's most recently completed second fiscal quarter, the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was approximately \$149 million, based on the closing price of the registrant's common stock on the Nasdaq National Market on June 30, 2005 of \$8.40 per share.

As of February 28, 2006, 24,349,875 shares of registrant's common stock, \$0.0001 par value, were outstanding.

#### **DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the registrant's definitive Proxy Statement to be filed with the Securities and Exchange Commission by May 1, 2006 are incorporated by reference into Part III of this report.

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**PART I**

**FORWARD-LOOKING STATEMENTS**

This report and the information incorporated herein by reference contain forward-looking statements that involve a number of risks and uncertainties, as well as assumptions that, if they never materialize or prove incorrect, could cause our results to differ materially from those expressed or implied by such forward-looking statements. Although our forward-looking statements reflect the good faith judgment of our management, these statements can only be based on facts and factors currently known by us. Consequently, forward-looking statements are inherently subject to risks and uncertainties, and actual results and outcomes may differ materially from results and outcomes discussed in the forward-looking statements.

Forward-looking statements can be identified by the use of forward-looking words such as believes, expects, hopes, may, will, plan, intend, estimates, could, should, would, continue, seeks, pro forma, anticipates, or other similar words (including their use in the negative), discussions of future matters such as the development of new drug candidates or products, technology enhancements, possible changes in legislation, and other statements that are not historical. These statements include but are not limited to statements under the captions Business, Risk Factors, and Management's Discussion and Analysis of Financial Condition and Results of Operations as well as other sections in this report. You should be aware that the occurrence of any of the events discussed under the caption Risk Factors and elsewhere in this report could substantially harm our business, results of operations and financial condition. If any of these events occurs, the trading price of our common stock could decline and you could lose all or a part of the value of your shares of our common stock.

The cautionary statements made in this report are intended to be applicable to all related forward-looking statements wherever they may appear in this report. We urge you not to place undue reliance on these forward-looking statements, which speak only as of the date of this report.

**Item 1. Business.**

**Overview**

We are a biopharmaceutical company focused on the discovery, development, and commercialization of small molecule drugs for the treatment of central nervous system disorders. We currently have four programs in clinical development and several additional programs in preclinical development and discovery stages. Our three proprietary Phase II 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. We have retained worldwide commercialization rights for these programs. We also have a neuropathic pain program in Phase II clinical trials in collaboration with Allergan, Inc. All of the drug candidates in our product pipeline emanate from discoveries made using our proprietary drug discovery platform.

The annual worldwide market for drugs used to treat schizophrenia and other psychoses exceeds \$14 billion and the annual worldwide market for drugs used to treat Parkinson's disease exceeds \$2 billion. Current therapies in each of these two markets have substantial limitations and we believe that significant opportunities exist for improved therapies.

In our first clinical program, we are developing ACP-103 to treat the debilitating psychiatric and motoric dysfunctions that frequently result from currently prescribed Parkinson's disease therapies. We have completed a Phase Ib/IIa clinical trial that demonstrated safety and tolerability of ACP-103 in Parkinson's disease patients. We have also completed enrollment of a multi-center Phase II clinical trial designed to evaluate the efficacy, safety and tolerability of ACP-103 in Parkinson's disease patients suffering from treatment-induced psychosis. In June 2005, we reported results from an interim trend analysis of this trial. We expect to report results from the complete Phase II study during March 2006. In addition, we are currently conducting a study to evaluate the ability of ACP-103 to treat drug-induced dyskinesias, a motoric dysfunction, in patients with Parkinson's disease.

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In our second clinical program, we are developing ACP-103 as an adjunctive therapy for schizophrenia. We believe that the use of ACP-103 adjunctively may result in an improved antipsychotic therapy with better efficacy and lower side effects relative to existing therapies. We have completed two clinical studies that showed that ACP-103 reduced motor disturbances associated with treatment with haloperidol, an existing antipsychotic drug. We are currently conducting a large multi-center Phase II clinical trial designed to evaluate the ability of ACP-103 when used adjunctively with other antipsychotic drugs to provide an improved therapy for patients with schizophrenia.

In our third clinical program, we are developing ACP-104 as a novel approach for the treatment of schizophrenia. Currently prescribed treatments often do not effectively address or may exacerbate cognitive disturbances associated with schizophrenia. We believe that ACP-104 may provide an effective antipsychotic therapy that may have the added advantage of improved cognitive function for patients with schizophrenia. We are currently conducting the initial studies in our Phase II clinical program for ACP-104 in patients with schizophrenia.

In our fourth clinical program, we have discovered a new class of compounds in collaboration with Allergan that we believe may represent a significant breakthrough in the treatment of neuropathic pain. Allergan has completed Phase I clinical trials with two drug candidates and is currently conducting Phase II clinical trials in this program.

We have built a proprietary drug discovery platform that we use to rapidly discover new compounds that may serve as potential treatments for significant unmet medical needs. Our platform encompasses proprietary target-based and chemistry-based technologies that we integrate with our discovery and development capabilities. We believe that the breadth of our discovery and development programs and the rapid pace at which we have discovered drug candidates provide strong validation of our proprietary platform and a basis for expanding our pipeline.

We leverage our proprietary drug discovery platform and expertise through collaborations with pharmaceutical and biotechnology companies. We have three collaborations with Allergan and one with Sepracor Inc. for the discovery and development of small molecule drug candidates. To date, we have received research funding, upfront and milestone payments from our collaborators, and equity investments from Allergan and Sepracor. We may receive additional payments, including research support, milestone payments, and royalties on product sales.

We have assembled a management team with significant industry experience to lead the discovery, development, and commercialization of our drug candidates. Members of our management team have contributed to the discovery, development, and approval of multiple drug candidates to treat central nervous system disorders and are also experts in the application of gene, target, and chemical technologies in drug discovery. We complement our management team with a network of scientific and clinical advisors that includes recognized experts in the fields of schizophrenia, Parkinson's disease, and other central nervous system disorders.

We were originally incorporated in Vermont in 1993 as Receptor Technologies, Inc. In 1997, we reincorporated in Delaware. ACADIA and R-SAT are our registered trademarks. Our logos and trademarks are the property of ACADIA Pharmaceuticals Inc. All other brand names or trademarks appearing in this report are the property of their respective holders. Use or display by us of other parties' trademarks, trade dress, or products in this report is not intended to, and does not, imply a relationship with, or endorsements or sponsorship of, us by the trademark or trade dress owners.

We maintain a website at [www.acadia-pharm.com](http://www.acadia-pharm.com). We make available free of charge on our website our periodic and current reports as soon as reasonably practicable after such reports are filed with the Securities and Exchange Commission, or SEC. Information contained on, or accessible through, our website is not part of this report or our other filings with the SEC.

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### **Our Strategy**

Our goal is to become a leader in the discovery, development, and commercialization of novel small molecule drugs for the treatment of central nervous system disorders and other areas of unmet medical need. Key elements of our strategy are to:

***Develop and commercialize our lead drug candidates.*** We are focused on advancing the development of our three internal clinical programs, 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. We intend to complete Phase II clinical trials in each of these programs and, with a partner or independently, continue to advance these programs through clinical development and, if successful, to commercialization. In therapeutic indications in which we have a cost-effective development path and believe our drug candidates could effectively be marketed by us, we intend to engage in late-stage clinical development and commercialization.

***Selectively establish strategic collaborations to advance and maximize the commercial potential of our pipeline.*** We will continue to pursue selective strategic collaborations to leverage the development, regulatory, and commercialization expertise of our partners. In therapeutic indications that do not have a cost-effective development path or require a large sales force, we plan to complete late-stage clinical development and commercialization of our drug candidates through, or in collaboration with, partners. However, we plan to retain selected commercialization rights to our products where we can pursue specialty markets that could result in significant financial return on our investment.

***Expand our pipeline of drug candidates for the treatment of central nervous system and related disorders.*** We plan to continue using our proprietary drug discovery platform and expertise to expand our pipeline of drug candidates for the treatment of central nervous system disorders and related disorders. We believe that these disorders represent significant market opportunities. We believe that our diversified pipeline of programs will mitigate the risks inherent in drug discovery and development and increase the likelihood of commercial success.

***Leverage our proprietary drug discovery platform to identify novel drug candidates outside of our core focus.*** In addition to our focus on central nervous system disorders, we are leveraging our proprietary drug discovery platform to identify novel drug candidates in therapeutic areas outside of our core focus that we may develop independently or in partnerships. Our platform has broad applicability in a variety of other therapeutic areas, including ophthalmology, endocrinology, and oncology. To date, we have formed collaborations with Allergan in the area of ophthalmology. We may continue to selectively partner or out-license drug candidates in therapeutic areas outside of our core focus.

***Maintain and enhance our technology leadership position.*** We believe we are a leader in small molecule discovery with expertise in molecular biology, ultra-high throughput screening, pharmacology, and chemistry. Currently we have three proprietary target-based platforms that incorporate some of the largest gene families that include the most relevant targets for small molecule drug discovery. In addition, we will continue to augment our proprietary chemistry capabilities and expand our diverse compound library.

***Opportunistically in-license or acquire complementary technologies and drug candidates.*** Although we have discovered all of the drug candidates currently in our pipeline, we believe that in-licensing or acquiring technologies and drug candidates that complement our capabilities may enable us to expand our product pipeline more rapidly and enhance our state-of-the-art discovery capabilities. Therefore, in the future, we may elect to in-license or acquire complementary technologies and augment our internal pipeline with drug candidates or products.

### **Our Programs**

Our programs include four programs in clinical development, two programs in IND-track development, where we or a collaborator have selected a drug candidate for development and are seeking to complete



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toxicology and other development testing in preparation for future clinical trials, and three programs in preclinical testing, where we have not yet selected a drug candidate for development. Our programs address diseases that are not well served by currently available therapies and represent large potential commercial market opportunities. We believe that our drug candidates offer innovative therapeutic approaches and may provide significant advantages relative to current therapies. The following table summarizes our programs:

<b>Program</b>	<b>Stage of Development</b>	<b>Commercialization Rights</b>
ACP-103 for treatment-induced dysfunctions in Parkinson's disease	Phase II	ACADIA
ACP-103 as an adjunctive therapy for schizophrenia	Phase II	ACADIA
ACP-104 for schizophrenia	Phase II	ACADIA
AGN-XX and AGN-YY for neuropathic pain	Phase II	Allergan
AC-262271 for glaucoma	IND-track development	Allergan
ACP-105 for endocrine indications	IND-track development	ACADIA
Serotonin program for neuropsychiatry and sleep indications	Preclinical	ACADIA
Muscarinic program for neuropsychiatry and other indications	Preclinical	Sepracor
Cannabinoid CB1 program for obesity and substance abuse indications	Preclinical	ACADIA

**Our Clinical Programs*****Treatment-Induced Dysfunctions in Parkinson's Disease******Disease and Market Overview***

Parkinson's disease is a chronic, progressive, neurological disorder that results from the degeneration of neurons in a region of the brain that controls movement. This degeneration creates a shortage of an important brain signaling chemical, or neurotransmitter, known as dopamine, rendering patients unable to initiate their movements in a normal manner. Parkinson's disease is characterized by a number of symptoms including tremors, limb stiffness, slowness of movements, and difficulties with posture and balance. The severity of Parkinson's disease symptoms tends to worsen over time.

According to the American Parkinson's Disease Association, over 1.5 million people in the United States suffer from this disease. Parkinson's disease is more prevalent in people over 60 years of age, and the incidence and prevalence of this disease is expected to increase as the average age of the population increases. In 2004, approximately \$2.5 billion was spent on drug therapy worldwide to treat Parkinson's disease.

Parkinson's disease patients are currently treated with dopamine replacement therapies such as levodopa, commonly referred to as L-dopa, and dopamine agonists, which are molecules that mimic the action of dopamine. These therapies are relatively effective in controlling the symptoms



of the disease in most patients. However, the use of these agents normally is required throughout the course of the disease and often results in a

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range of side effects that are not effectively treated with marketed drugs. These side effects may include neuropsychiatric abnormalities such as hallucinosis and psychosis, as well as uncontrollable movements of the limbs, referred to as dyskinesias. Studies have suggested that approximately 30 percent of Parkinson's disease patients that are undergoing dopamine replacement therapies will develop hallucinosis, typically consisting of visual hallucinations, with a smaller portion of these patients developing a state of psychosis. These abnormalities are often disabling, and drug-induced psychosis is the most important factor leading to nursing home placements of Parkinson's disease patients. In addition, drug-induced dyskinesias are estimated to occur in up to 80 percent of Parkinson's disease patients after five years of receiving available therapies. Currently, there is a large unmet medical need for new therapies that will effectively control or eliminate the dose-limiting side effects that result from the use of dopamine replacement therapies in the treatment of Parkinson's disease.

There have been numerous attempts to use existing antipsychotic drugs to treat the neuropsychiatric abnormalities caused by the treatment of Parkinson's disease patients. Because antipsychotic agents worsen the preexisting brain dopamine deficit, these drugs are generally not well-tolerated by Parkinson's disease patients. One antipsychotic drug therapy that has demonstrated efficacy in reducing treatment-induced psychosis in Parkinson's disease patients without further impairing motor function is low-dose treatment with the generic drug clozapine. Our studies suggest that this unique clinical utility of clozapine arises from its ability to block a key serotonin receptor, a protein that responds to the neurotransmitter serotonin, known as the 5-HT<sub>2A</sub> receptor. The U.S. Food and Drug Administration, or FDA, has not approved any therapy for treatment-induced psychotic disorders in Parkinson's disease. However, in Europe, the use of low-dose clozapine has been approved for this indication. Existing antipsychotic drugs, including Seroquel, are also used off-label for this indication in both the United States and in Europe.

### *ACP-103 for Treatment-Induced Dysfunctions in Parkinson's Disease*

#### *Overview*

ACP-103 is a small molecule drug candidate that we discovered and are developing to treat the debilitating psychiatric and motoric dysfunctions produced by current Parkinson's disease therapies. ACP-103 is a novel, potent, and selective 5-HT<sub>2A</sub> inverse agonist, meaning that it blocks the activity of the 5-HT<sub>2A</sub> receptor. We believe that ACP-103 may effectively treat the hallucinosis, psychosis, and dyskinesias that frequently result from the use of existing Parkinson's disease medications, thereby significantly improving the quality of life for Parkinson's disease patients. Because ACP-103 does not interact with dopamine receptors, it is not expected to impair motor function in these patients.

#### *Development Status*

During the fourth quarter of 2005, we completed enrollment of a multi-center, double-blind, placebo-controlled Phase II clinical trial designed to evaluate the efficacy, safety, and tolerability of ACP-103 in Parkinson's disease patients suffering from treatment-induced psychosis. We expect to report the results of this trial during March 2006. We enrolled a total of 60 Parkinson's disease patients in this trial at several clinical sites in the United States. The study involved once-daily oral administration of either ACP-103 at selected doses or a placebo for four weeks to patients who also received their stable dopamine replacement therapy. Efficacy was assessed by a battery of standard rating scales and by physicians' global impressions of change at multiple times throughout the study period. In June 2005, we reported results from an interim trend analysis of this trial based on data from the first 30 patients to complete the study, of which 13 patients were treated with ACP-103 and 17 patients were administered placebo. This interim analysis examined trends relative to the trial's endpoints of antipsychotic efficacy, comparing baseline to 28-day performance on two rating scales used in the trial. Results of the interim analysis demonstrated that the ACP-103 treatment group showed a greater reduction in psychotic symptoms on both rating scales, relative to the placebo treatment group. In addition, no serious adverse events were reported in the interim analysis. The interim findings are not necessarily indicative of the final results to be reported from the complete Phase II clinical trial. We also have an ongoing open-label extension study involving

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the extended use of ACP-103 in Parkinson's disease patients with treatment-induced psychosis who have completed the aforementioned Phase II trial and may, in the opinion of the treating physician, benefit from continued treatment with ACP-103. This extension study is designed to determine the safety of ACP-103 during long-term administration.

In addition to our Phase II trial for Parkinson's disease patients suffering from treatment-induced psychosis, we have an ongoing clinical pharmacology study to evaluate the ability of ACP-103 to treat levodopa-induced dyskinesias in patients with Parkinson's disease. This study is being conducted at the National Institutes of Neurological Disorders and Stroke, an institute of the National Institutes of Health, and is expected to enroll up to 20 patients.

In June 2004, we reported results from a double-blind, placebo-controlled Phase Ib/IIa clinical trial with ACP-103 comprised of 12 Parkinson's disease patients on standard dopamine replacement therapy. This clinical trial evaluated the safety and tolerability of ACP-103 in Parkinson's disease patients following administration of 25 and 100 milligram doses once-daily for 14 days. ACP-103 was well-tolerated in these patients. Importantly, the motor skills of these patients did not deteriorate, an effect commonly seen with other antipsychotic drugs. In addition, patients who entered this trial with treatment-induced dyskinesias exhibited indications of antidyskinetic activity after ACP-103 administration. This outcome is consistent with the previously demonstrated antidyskinetic activity of ACP-103 in a monkey model of Parkinson's disease.

### *ACP-103 Phase I and PET and Polysomnography Clinical Studies*

In 2003, we completed two Phase I clinical trials that assessed the safety, tolerability, and blood levels of ACP-103 following oral administration in a total of 57 healthy volunteers. These randomized, double-blind, placebo-controlled, dose-escalation trials encompassed both single-dose and multiple-dose studies. The single-dose study evaluated five different dose levels ranging from 20 to 300 milligrams. The multiple dose-escalation study evaluated three different dose levels, ranging from 50 to 150 milligrams administered once-daily for 14 days. In both the single-dose and multiple-dose studies, ACP-103 exhibited consistent drug levels in the blood and a long half-life that we believe make our drug candidate ideal for once-daily dosing. ACP-103 was well-tolerated at plasma levels of 229 nanograms per milliliter and below with no changes in cardiovascular or neurological function and no serious adverse events at any plasma level of ACP-103. In addition to our Phase I clinical trials of ACP-103, we conducted drug receptor occupancy studies in healthy volunteers using non-invasive, positron emission tomography, or PET, with various single doses of ACP-103. This study demonstrated that even low acute oral doses of this drug candidate produce significant occupancy of 5-HT<sub>2A</sub> receptors in the human brain.

We have also completed enrollment of a randomized, double-blind, placebo-controlled, combined PET and polysomnography clinical study with ACP-103 in healthy older volunteers. This study is designed primarily to determine the relationship between brain receptor occupancy and steady state levels of ACP-103 and to assess the effect of steady-state oral administration of ACP-103 on deep, or slow wave, sleep. We enrolled a total of 45 subjects in this study, who were randomized to several different study arms, and each group was administered a different dose of ACP-103 or placebo for 14 consecutive days. We are planning to report results from this study during the second quarter of 2006. We believe that ACP-103 and other 5-HT<sub>2A</sub> inverse agonists in our serotonin program have the potential to treat insomnia symptoms and improve sleep maintenance, which is frequently disturbed in older adults because of decreased slow wave sleep.

### ***Schizophrenia***

#### *Disease and Market Overview*

Schizophrenia is a chronic, debilitating mental illness characterized by disturbances in thinking, emotional reaction, and behavior. These disturbances may include positive symptoms, such as hallucinations and delusions,

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and a range of negative symptoms, including cognitive disturbances. Schizophrenia is associated with persistent impairment of a patient's social functioning and productivity. It is believed that cognitive disturbances prevent patients with schizophrenia from readjusting to society. As a result, patients with schizophrenia are required to be under medical care for their entire lives.

According to the National Institute of Mental Health, approximately one percent of the population develops schizophrenia during their lifetime and more than two million people in the United States suffer from this disease. Worldwide sales of drugs used to treat schizophrenia and other psychoses totaled approximately \$14 billion in 2004. Currently, schizophrenia is treated by administration of first generation, known as typical, or second generation, known as atypical, antipsychotic agents. The typical antipsychotic agents that were introduced in the late-1950s block dopamine receptors. This class of compounds is effective against positive symptoms of schizophrenia but also produces disabling motor disturbances, including akathisia, an extremely distressful motor disturbance characterized by feelings of inner restlessness and an urge to move. Typical antipsychotic drugs fail to address or worsen most of the negative symptoms of schizophrenia and their use has decreased in the United States and Europe.

Atypical antipsychotic drugs produce fewer motor disturbances than typical antipsychotic agents, but also fail to address most of the negative symptoms of schizophrenia. It is believed that the efficacy of atypical antipsychotic drugs is due to their interactions with dopamine and 5-HT<sub>2A</sub> receptors. The side effects produced by the atypical agents may include severe obesity, type II diabetes, cardiovascular side effects, and motor disturbances, including akathisia. We believe that these side effects arise either from non-essential receptor interactions that are unrelated to their efficacy or from excessive dopamine blockade.

In spite of the availability of a variety of antipsychotic agents, only a portion of the negative symptoms of schizophrenia are treatable and, in particular, the cognitive disturbances are poorly addressed by current therapies. Clozapine, more so than other atypical antipsychotics, appears to have the ability to partially address cognitive disturbances while typical antipsychotic drugs frequently worsen the cognitive function of the patients. We believe there is a large unmet medical need for therapies that address both the positive and negative symptoms of schizophrenia and produce fewer side effects.

We have two development programs that we believe offer innovative therapeutic solutions to major unmet medical needs in schizophrenia.

### *ACP-103 as an Adjunctive Therapy for Schizophrenia*

#### *Overview*

We are developing ACP-103 as an adjunctive therapy to be used together with other antipsychotic drugs to treat schizophrenia. ACP-103 can be taken orally and is a novel, potent and selective 5-HT<sub>2A</sub> inverse agonist. By identifying and correlating the molecular properties of marketed antipsychotic drugs with their clinical actions, we have identified inverse agonism at 5-HT<sub>2A</sub> receptors as essential to the improved clinical profile of atypical antipsychotic drugs. By adding ACP-103 to existing treatment regimens, we believe that the optimal combination of 5-HT<sub>2A</sub> inverse agonism and dopamine receptor blockade can be achieved with a range of typical and atypical antipsychotic drugs. This adjunctive therapy may result in better efficacy and lower side effects.

#### *Development Status*

We are currently conducting a multi-center, double-blind, placebo-controlled Phase II clinical trial designed to evaluate the ability of ACP-103 when used adjunctively with other antipsychotic drugs to provide an improved therapy for patients with schizophrenia. This clinical trial is exploring the ability of ACP-103 in adjunctive therapy with each of risperidone, an atypical antipsychotic drug, and haloperidol, a typical antipsychotic drug, to treat schizophrenia. We plan to enroll up to 400 patients with schizophrenia, who will be randomly assigned to

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one of five treatment groups. These groups will include treatment with ACP-103 together with selected doses of either risperidone or haloperidol, and three additional groups consisting of treatment with specified doses of risperidone or haloperidol along with a placebo. We will assess efficacy on positive and negative symptoms and tolerability using a battery of standard psychiatric and neurological rating scales. A formal interim analysis is planned for this study after 200 patients have completed the trial. We expect to report results from this interim analysis during the second half of 2006.

In December 2005, we reported results of a multi-center, double-blind, placebo-controlled Phase II clinical trial designed to evaluate the ability of ACP-103 to treat haloperidol-induced akathisia in patients with schizophrenia. Results from this clinical study were based on 30 patients who completed the study protocol. Fourteen of these 30 patients received once-daily oral administration of 60 milligrams of ACP-103 and 16 were administered placebo over a five-day period. Subjects were also maintained on their pre-study dose of haloperidol during the course of the study. Patients were evaluated using the Barnes Akathisia Scale, or BAS, a four-item rating scale consisting of: objective akathisia (Item 1), subjective awareness of restlessness (Item 2), subjective distress related to restlessness (Item 3), and global clinical assessment of akathisia (Item 4). Overall, the results of the study showed that ACP-103 reduced akathisia relative to placebo. There were no statistically significant differences between ACP-103-treated and placebo-treated subjects for BAS Item 4, a priori defined as the primary outcome measure of the study, due to a large placebo response. However, ACP-103 significantly reduced BAS Item 1 on day 5 ( $p=0.04$ ), and there were statistically significant improvements ( $p<0.05$ ) or statistical trends ( $p<0.1$ ) on day 3 for Item 1 ( $p=0.06$ ), Item 2 ( $p=0.02$ ), Item 3 ( $p=0.09$ ), and the BAS total, Items 1-4, ( $p=0.03$ ). ACP-103 was safe and well tolerated and no serious adverse events were reported in the study.

In September 2004, we reported results of a clinical study designed to assess the ability of ACP-103 to reduce side effects associated with drug treatment with haloperidol. This double-blind, placebo-controlled study involved 18 healthy volunteers. All subjects were administered a single 7.5 milligram dose of haloperidol and the majority of these subjects developed measurable akathisia. In addition, the haloperidol treatment induced approximately a three-fold increase in prolactin secretion. This condition of elevated prolactin secretion may adversely affect menstrual and sexual function and bone formation. The results of the study indicated that a single dose of ACP-103 reduced akathisia symptoms in most subjects. In addition, ACP-103 reduced haloperidol-induced increases in prolactin secretion by 33 percent.

### *ACP-104 as a Treatment for Schizophrenia Providing Potential Cognitive Benefits*

#### *Overview*

ACP-104 is a small molecule drug candidate that we are developing as a stand-alone therapy for schizophrenia with the added potential benefit of enhanced cognition. It is known that large amounts of ACP-104, or N-desmethylozapine, are formed in the body after administration of clozapine. That is, clozapine is metabolized to ACP-104. We discovered that ACP-104 has a unique ability to stimulate m1 muscarinic receptors. The m1 muscarinic receptors are widely known to play an important role in cognition. Since clozapine itself blocks the m1 muscarinic receptor, patients need to extensively metabolize clozapine into ACP-104 to stimulate this receptor and thereby overcome the blocking action of clozapine. Administration of ACP-104 will avoid the variability of this metabolic process and the competing action of clozapine. Like clozapine, ACP-104 interacts with 5-HT<sub>2A</sub> receptors. Our research indicates that ACP-104 is also a partial agonist that causes weak activation of dopamine D<sub>2</sub> and D<sub>3</sub> receptors, whereas clozapine and most other antipsychotic drugs block these dopamine receptors. These partial agonist properties of ACP-104 may lead to less motoric side effects than seen with most other antipsychotic drugs. We believe that ACP-104 represents a new approach to schizophrenia therapy that combines an atypical antipsychotic efficacy profile with the added potential benefit of enhanced cognition.

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### *Development Status*

We are currently conducting three initial studies in our Phase II clinical program for ACP-104. The first clinical trial is a double-blind, placebo-controlled, single ascending-dose study designed primarily to evaluate the safety, tolerability and blood levels of ACP-104 in patients with schizophrenia. In November 2005, we reported initial results from this study based on a total of 10 patients that were administered single doses of ACP-104 or placebo on separate days. Each patient received placebo and two distinct doses of ACP-104 ranging from 25 milligrams to 100 milligrams. Based on the initial doses administered in the study, peak plasma levels were in the range of ACP-104 exposure previously observed after the administration of clozapine. ACP-104 was safe and well tolerated at each of the doses tested and no dose limiting or serious adverse events were observed. Based on the initial results, we have expanded the single ascending-dose study to test higher doses of ACP-104.

ACP-104 is also being evaluated in an ongoing 14-day, steady-state, double-blind, placebo-controlled multiple ascending-dose study in patients with schizophrenia. This study is designed to evaluate the safety, tolerability and blood levels of ACP-104, as well as to provide preliminary indications of antipsychotic efficacy. We are also conducting a single-dose PET study in patients with schizophrenia, designed to establish a correlation between brain receptor occupancy and plasma levels of ACP-104. We are planning to report results from these three initial clinical trials with ACP-104, encompassing a total of approximately 50 patients, during the second quarter of 2006. Following completion of these initial studies, we plan to conduct additional studies to further assess the efficacy of ACP-104 in the treatment of patients with schizophrenia and cognitive disturbances.

We have analyzed data on clozapine and ACP-104 plasma levels relative to clinical response from two clinical trials that included 92 patients with schizophrenia treated with clozapine for up to six months. We demonstrated in this analysis that the plasma drug ratio of ACP-104 to clozapine positively predicts improvement in cognitive functioning and quality-of-life parameters in these patients. This analysis indicated that a higher ratio of ACP-104 relative to clozapine resulted in a better response by these patients in a wide range of standard cognitive functioning and quality of life clinical measures. The results of this analysis and our preclinical tests suggest that due to its ability to stimulate m1 receptors, ACP-104 is responsible for the cognitive benefits of clozapine.

### *Neuropathic Pain*

#### *Disease and Market Overview*

Neuropathic pain is a common and increasingly prevalent form of pain that is thought to involve an alteration in nervous system function or a reorganization of nervous system structure. Neuropathic pain can be associated with nerve damage caused by trauma, diseases such as diabetes, shingles, irritable bowel syndrome, late-stage cancer or the toxic effects of chemotherapy. In many patients, damage to sensory nerves is accompanied by varying degrees of pain. The experience can range from mildly increased sensitivity to touch or temperature to excruciating pain. This kind of pain is extremely difficult to manage clinically because it fails to respond to most medications currently used to treat other forms of pain. According to Pharmaprojects, a healthcare publication, each year approximately 26 million people worldwide suffer from some form of neuropathic pain.

Drugs such as opioid painkillers and non-steroidal anti-inflammatory agents that are effective in treating inflammatory and acute pain usually are not effective in treating neuropathic pain. Opioid painkillers also have significant adverse side effects that limit their usefulness, including respiratory depression, nausea, vomiting, dizziness, sedation, mental clouding, constipation, urinary retention, and severe itching. In addition, prolonged chronic use of opioid painkillers can lead to the need for increasing dosage and potentially to addiction. Neurontin, previously the market leading treatment for neuropathic pain with sales of \$2.7 billion in 2004, is now generic. Currently, the leading drugs approved for neuropathic pain indications include Lyrica, the successor to Neurontin, and Cymbalta. Lyrica had worldwide sales of \$291 million in 2005. Cymbalta, indicated for treatment

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of diabetic peripheral neuropathic pain as well as treatment of major depressive disorder, had worldwide sales of \$680 million in 2005. We believe that there is a large unmet medical need for new therapies with improved efficacy and side effect profiles.

### *Our Drug Candidates for Neuropathic Pain*

In collaboration with Allergan, we have discovered and are developing a new class of small molecule drug candidates that we believe provide the potential for a significant breakthrough in the treatment of neuropathic pain. Using our proprietary drug discovery platform, we identified a previously unappreciated target for neuropathic pain, which is a key alpha adrenergic receptor subtype. We have discovered and are developing orally active, small molecule drug candidates that selectively activate this target. Our novel and selective alpha adrenergic agonists provide highly effective pain relief in a wide range of preclinical models, without the side effects of current pain therapies, including sedation and cardiovascular and respiratory effects. Allergan has demonstrated that these drug candidates are highly potent and efficacious when administered orally in relevant animal models and are more efficacious than Neurontin in preclinical models at approximately 300-fold lower doses.

Allergan has completed Phase I clinical trials for two orally active, small molecule drug candidates and is currently conducting Phase II clinical trials in this program. Based on the preclinical profile of these drug candidates and the results of the Phase I clinical trials, we believe that these drug candidates may represent a new class of highly effective and safe therapeutics for neuropathic pain.

### **Our IND-Track Development and Preclinical Programs**

In addition to our clinical programs, we have two programs in IND-track development, where we or a collaborator have selected a drug candidate for development and are seeking to complete toxicology and other development testing in preparation for future clinical trials. We also have three programs that are in preclinical testing where we have not yet selected a drug candidate for development. The following summarizes our IND-track development and preclinical programs.

#### *AC-262271 for treatment of Glaucoma*

We have discovered and, in collaboration with Allergan, are developing AC-262271, a small molecule drug candidate for the treatment of glaucoma. Glaucoma is an eye disease that, if left untreated, can lead to degeneration of the optic nerve and blindness. Glaucoma is the second leading cause of blindness in the United States. A prevalent symptom of glaucoma is increased fluid pressure within the eye, or intraocular pressure. Currently, physicians treat glaucoma with multiple classes of therapeutics to optimize therapy and minimize side effects.

Using our proprietary drug discovery platform, we identified a subtype of the muscarinic receptors that controls intraocular pressure and discovered lead compounds that selectively activate this target. In a primate model of glaucoma, AC-262271 demonstrated efficacy and a long duration of action without causing visual disturbances, such as accommodation, a condition affecting retinal focusing. Preclinical data for AC-262271 suggests that this drug candidate has the potential to be a promising new therapy for glaucoma. Allergan is currently conducting studies with AC-262271 in preparation for possible clinical trials.

#### *ACP-105 for treatment of endocrine indications*

We have discovered and are developing ACP-105, a non-steroidal and selective androgen receptor agonist. ACP-105 is part of a class of molecules referred to as selective androgen receptor modulators, or SARMs. SARMs may advance the standard of treatment for a variety of disorders including muscle-wasting conditions and osteoporosis, with fewer side effects as compared to current treatments based on testosterone replacement.

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ACP-105 has exhibited promising pharmacological properties and a favorable safety profile in preclinical testing. In addition, ACP-105 has reversed endocrine and bone-related markers of testosterone deficiency in preclinical animal testing. Unlike testosterone, ACP-105 had little effect on the prostate, thereby demonstrating tissue specificity in its actions. We have initiated development of ACP-105 and intend to complete toxicology and other testing in preparation for potential clinical trials.

### ***Serotonin Preclinical Program***

We use our serotonin program to generate new drug candidates to treat neuropsychiatric and related central nervous system disturbances. We discovered ACP-103, a potent and selective 5-HT<sub>2A</sub> inverse agonist, in this program. We have synthesized a large number of additional compounds having diverse pharmacological and pharmaceutical properties that interact with the various 5-HT<sub>2</sub> and related receptor subtypes. These compounds may also be used to modify sleep architecture, particularly slow wave sleep that is commonly disturbed in the elderly. In connection with our collaboration agreement with Sepracor formed in January 2005, Sepracor has the option to select one preclinical 5-HT<sub>2A</sub> compound from this program for use in combination with LUNESTA, Sepracor's insomnia drug, for sleep-related indications. We will retain the rights to all other compounds in this program.

### ***Muscarinic Preclinical Program***

Our muscarinic program is designed to deliver new drug candidates to treat psychosis, cognitive disturbances in patients with schizophrenia and dementia, neuropathic pain, and other indications. In January 2005, we formed a collaboration with Sepracor that is focused on further developing drug candidates resulting from our muscarinic program. This program includes our muscarinic agonists that selectively target the m<sub>1</sub> muscarinic receptor and may represent a novel approach to the treatment of cognition in patients with schizophrenia. We have discovered over 300 potent muscarinic agonists that selectively target the m<sub>1</sub> muscarinic receptor. These muscarinic agonist compounds inhibit behaviors associated with psychotic states and enhance cognitive function in preclinical models. We have also identified the muscarinic receptor subtype that we believe alleviates neuropathic pain. We have identified novel sites for muscarinic receptor/drug interactions that yield selective muscarinic agonists. Such compounds have not shown the side effects typical of non-selective muscarinic agents, but show robust effects in animal models of psychosis, cognition, and neuropathic pain. The promising preclinical profile of our selective muscarinic compounds suggests significant therapeutic potential. We have previously used this program to discover the muscarinic agonist action of ACP-104 and a series of preclinical analogs of ACP-104, and have retained all rights related to each of these compounds.

### ***Cannabinoid CB<sub>1</sub> Preclinical Program***

We have discovered structurally novel lead compounds that potently and selectively block the cannabinoid CB<sub>1</sub> receptor. The CB<sub>1</sub> receptor is predominantly expressed in the central nervous system and has a key role in regulating appetite and other reward-based behaviors. Blockade of CB<sub>1</sub> receptors may lead to novel treatments for obesity and substance abuse. CB<sub>1</sub> receptor antagonists may also be useful in the treatment of disorders associated with cognitive deficits. We are currently conducting lead optimization with proprietary compounds that are potent and selective for the CB<sub>1</sub> receptor, are active following oral dosing in preclinical animal models, and are well tolerated at high doses.

## **Our Drug Discovery Platform and Capabilities**

### ***Overview***

We have established drug discovery and technical expertise in the areas of molecular biology, ultra-high throughput screening, molecular and behavioral pharmacology, and combinatorial, medicinal and analytical chemistry. In addition, we collaborate with world-renowned scientists, clinicians, and academic institutions. We believe that our expertise combined with our proprietary drug discovery platform has allowed us to discover drug candidates more efficiently than traditional approaches.



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All of our drug candidates that are currently in clinical trials and earlier stages of discovery and development were discovered using our proprietary drug discovery platform. We have integrated our discovery and development capabilities with proprietary target-based and chemistry-based technologies. We have demonstrated that our platform can be used to rapidly identify drug-like, small molecule chemistries for a wide range of drug targets. We believe that the breadth of our discovery and development programs and the rapid pace at which we have discovered drug candidates provide strong validation of our proprietary platform and a basis for expanding our pipeline.

### ***Our Drug Discovery Approach***

Our drug discovery approach is designed to introduce chemistry at an early stage in the drug discovery process and enable selection of the most attractive, drug-like chemistries for desired targets that we validate with past clinical experience. A key to our discovery approach is our comprehensive set of proprietary functional test systems, or assays, that we are developing for members of three important gene families, G-protein coupled receptors, or GPCRs, nuclear receptors, or NRs, and tyrosine kinase linked receptors, or RTKs. We believe that these gene families represent the most relevant and feasible targets for small molecule drug discovery. We use our proprietary assays to validate drug targets and to discover novel small molecule drug candidates that are specific for these targets using two complementary approaches.

Our first approach is to validate potential drug targets. We profile our collection of reference drugs, primarily consisting of currently and formerly marketed central nervous system drugs, over a range of targets in our functional assays to link clinical and physiological effects of drugs with specific drug targets. Using our reference-drug approach, we are able to identify key drug targets that are validated with past clinical experience as well as the targets that we believe are responsible for various side effects of these drugs. Our discoveries of ACP-103 and ACP-104 resulted from the successful application of our reference-drug approach.

Our second approach is to broadly screen large numbers of targets for the most attractive small molecule chemistries. These chemistries may be prioritized and used as starting points for our drug discovery programs. Using this approach, we discovered that one of our target-specific chemistries demonstrated activity in preclinical models of neuropathic pain, providing the starting point for our collaborative neuropathic pain clinical program. Similarly, one of our selective muscarinic agonists was active in a glaucoma model without showing classical side effects, providing the starting point for our collaborative glaucoma development program.

### ***Key Components of Our Drug Discovery Platform***

Key components of our drug discovery platform are discussed below:

#### ***Our Target-Based Discovery Technologies***

##### ***Overview***

The human genome project has provided information about the genetic structure of essentially all of the potential drug targets in the human genome. This knowledge, when combined with our proprietary technologies, allows for the efficient testing of the effects of chemical compounds on a wide range of potential drug targets. Within the human genome there are families of genes that include the most frequent targets of drugs. We focus our drug discovery efforts on those families of targets that are most likely to be affected by small molecule drugs.

##### ***R-SAT and Other Functional Assay Technologies***

Our proprietary receptor selection and amplification technology, which we refer to as R-SAT, is a valuable component of our drug discovery platform. R-SAT is a cell-based assay system where genes are transferred to cultured cells. The functional activity of the gene products, or potential drug targets, are then evaluated through

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signal transduction pathways that lead to cellular growth. The growth signals are reported using marker gene technologies. Thus, effects of drugs on potential drug targets can be efficiently detected as changes in color or fluorescence. R-SAT enables the efficient screening of large compound libraries for identification of new chemistries at given targets, as well as detailed pharmacological testing of compounds at a wide range of targets. In addition to R-SAT, we have developed other proprietary tools that evaluate compound interaction with these targets. One of these technologies measures the physical interaction of GPCRs and RTKs with signaling proteins.

### *Proprietary Receptor Assay Platforms*

Our scientists have cloned the genes for the majority of the targets in the G-protein coupled receptor, nuclear receptor and tyrosine kinsase gene families. These represent some of the largest families of genes targeted by known drugs. Our R-SAT assay system has enabled the building of functional assays for most of these genes yielding assay platforms, which we refer to as GPCR-SAT, NR-SAT and RTK-SAT. We also have developed assays for several additional targets in other relevant gene families.

### *Our Chemistry-Based Discovery Technologies*

Our drug discovery approach aims to identify small molecules that can serve as chemical starting points, or leads, for optimization efforts providing novel, potent and selective drug candidates for targets that are most likely to be affected by small molecule drugs. To enable our screening operation to identify high quality leads, we have assembled a large proprietary chemical library of diverse compounds. This diverse compound library consists of about 800,000 small organic molecules. We have also developed proprietary synthetic methods for library construction and lead optimization. In addition, our reference drug library provides us with the opportunity to validate targets and is another key component of our drug discovery platform. This reference drug library includes a wide range of the known central nervous system active drugs.

### *Drug Discovery Opportunities*

Our proprietary drug discovery platform has generated a wide range of novel chemistries that we believe will continue to provide us with starting points for additional programs. We have identified novel chemistries for more than 100 distinct targets. Using these target-specific chemistries, we have established a portfolio of proprietary drug discovery assets and projects in multiple therapeutic areas. In each of these areas, we have identified novel chemistries for different drug targets that we believe play an important role in these major diseases. Our discovery projects aim to answer specific scientific questions using relatively limited synthetic chemistry and biological efforts. When all key criteria have been fulfilled, these earlier-stage discovery projects may be advanced into preclinical programs.

## **Collaboration Agreements**

We have established three separate collaboration agreements with Allergan, a collaboration agreement with Sepracor, a development agreement with the Stanley Medical Research Institute, and a technology license agreement with Aventis to leverage our drug discovery platform and related assets and to commercialize selected drug candidates. Our collaborations have included upfront payments at initiation of the collaboration, which may be in the form of an equity investment, research support during the term, milestone payments upon successful completion of specified development objectives, and royalties based upon sales, if any, of drugs developed under the collaboration. Our current agreements are as follows:

### *Sepracor*

In January 2005, we entered into a collaboration agreement with Sepracor for the development of new drug candidates targeted toward the treatment of central nervous system disorders. Under the agreement, the parties are investigating potential clinical candidates resulting from our muscarinic preclinical program. The agreement

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also includes an option to select one 5-HT<sub>2A</sub> compound from our serotonin preclinical program for use in combination with LUNESTA, Sepracor's insomnia drug, for sleep-related indications. In connection with the collaboration, Sepracor has purchased an aggregate of 1,890,422 shares of our common stock for an aggregate of \$20 million in two \$10 million tranches. On January 13, 2005, Sepracor purchased 1,077,029 shares of our common stock at a price per share of approximately \$9.28, which represented a 40 percent premium to the 30-day trailing average closing price. On January 13, 2006, Sepracor purchased an additional 813,393 shares of our common stock at a price per share of approximately \$12.29, which represented a 25 percent premium to the 30-day trailing average closing price on the one-year anniversary of the agreement. Under the collaboration, we are also entitled to receive research funding over a three-year term and, if certain conditions are met, we are eligible to receive milestone payments as well as applicable royalties on worldwide product sales, if any. As of December 31, 2005, we had received \$2.1 million in funding pursuant to this agreement. Assuming the successful development of a single product in the muscarinic program, we may receive up to \$40 million in aggregate payments, plus applicable royalties. In addition, should the collaboration successfully develop a combination product with LUNESTA, we may receive up to approximately \$35 million in aggregate payments plus applicable royalties.

The general terms of this agreement continue until the later of the expiration of the last to expire patent covering a drug candidate licensed under the collaboration and the earlier of the date a generic version of the product is launched or a specified number of years from the date of the first commercial sale of the product. In addition, this agreement may terminate at the end of the research term.

### ***Allergan***

In March 2003, we entered into a collaboration agreement with Allergan to discover, develop, and commercialize new therapeutics for ophthalmic and other indications. The agreement originally provided for a three-year research term ending in late-March 2006. In February 2006, the parties amended the agreement to extend the research term for two additional years through March 2008. During the extended research term, the parties will focus joint research efforts in the area of pain. In addition, the parties may elect to pursue additional discovery activities in ophthalmic or other indications. As of December 31, 2005, we had received an aggregate of \$11.9 million under the agreement, consisting of an upfront payment, and research and related fees. We will receive additional research funding during the extended research term. During the extended research term, Allergan could exclusively license chemistry and related assets for up to three drug targets for development and commercialization. If we grant Allergan such an exclusive license, we would be eligible to receive license fees and milestone payments upon the successful achievement of agreed upon clinical and regulatory objectives. Allergan would retain the commercialization rights to the drug candidates in the target areas they exclusively license from us, and we would be eligible to receive royalties on future product sales, if any, worldwide. Assuming the license and successful development of a product for each of the three target areas, we could receive up to approximately \$47.5 million in aggregate license fees and milestone payments under the agreement, excluding product royalties.

In July 1999, we entered into a collaboration agreement with Allergan to discover, develop and commercialize selective muscarinic drugs for the treatment of glaucoma based on our compounds. Under this agreement, we provided our chemistry and discovery expertise to enable Allergan to select a compound for development. We granted Allergan exclusive worldwide rights to commercialize products based on this compound for the treatment of ocular disease. As of December 31, 2005, we had received an aggregate of \$8.8 million in payments under the agreement, consisting of upfront fees, research funding and milestone payments. We are eligible to receive additional milestone payments of up to approximately \$15 million, and would receive royalties on future product sales worldwide, if any. Allergan may terminate this agreement upon 90 days' notice. However, if terminated, Allergan's rights to the selected compound would revert to us.

In September 1997, we entered into a collaboration agreement with Allergan focused primarily on the discovery and development of new therapeutics for neuropathic pain and ophthalmic indications. This agreement

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was amended in conjunction with the execution of the March 2003 collaboration agreement and pursuant to the February 2006 amendment, and provides for the continued development of drug candidates for one target area. We are restricted from conducting competing research in that target area. Pursuant to the agreement, we granted Allergan exclusive worldwide rights to commercialize products resulting from the collaboration. In exchange, we had received an aggregate of \$10.5 million in research funding and milestone payments through December 31, 2005. We are eligible to receive additional milestone payments of up to \$10.0 million as well as royalties on future worldwide sales of products, if any, resulting from this collaboration. In connection with the execution of the collaboration agreement in 1997, Allergan made a \$6.0 million equity investment in us.

The general terms of our collaboration agreements with Allergan continue until the later of the expiration of the last to expire patent covering a drug candidate licensed under the collaboration and at least 10 years from the date of first commercial sale of a drug candidate. In addition, each of our Allergan collaboration agreements includes a research term that is shorter but may be renewed by the parties.

### ***The Stanley Medical Research Institute***

In May 2004, we entered into a development agreement with The Stanley Medical Research Institute, or SMRI, a leading nonprofit organization that supports research on the treatment of schizophrenia. The development term is for three years and may be extended for additional consecutive one-year periods by written agreement of the parties. Under this agreement, we are entitled to receive up to \$5 million in funding to support the further development of ACP-104. As of December 31, 2005, we had received \$3 million of funding under the agreement. Assuming the successful development and commercialization of ACP-104, we are required to pay to SMRI royalties on product sales of ACP-104 up to a specified level. SMRI may terminate this agreement in selected instances, including if we enter into a strategic alliance covering ACP-104 or do not reasonably progress its development. In connection with this agreement, we also issued a \$1 million convertible promissory note to SMRI. Upon the closing of our initial public offering on June 2, 2004, the principal and accrued interest under this note automatically converted into 143,914 shares of our common stock at a conversion price equal to the initial public offering price of \$7.00 per share.

### ***Aventis***

In July 2002, we entered into an agreement with Aventis under which we have licensed a portion of our technology for their use in a specified area that we are not pursuing presently.

## **Intellectual Property**

We currently hold 11 issued U.S. patents and 31 issued foreign patents. All of these patents originated from us. In addition, we have 59 provisional and utility U.S. patent applications and 172 foreign patent applications.

Patents or other proprietary rights are an essential element of our business. Our strategy is to file patent applications in the United States and any other country that represents an important potential commercial market to us. In addition, we seek to protect our technology, inventions and improvements to inventions that are important to the development of our business. Our patent applications claim proprietary technology, including methods of screening and chemical synthetic methods, novel drug targets and novel compounds identified using our technology.

We also rely upon trade secret rights to protect other technologies that may be used to discover and validate targets and that may be used to identify and develop novel drugs. We protect our trade secrets in part through confidentiality and proprietary information agreements. We are a party to various other license agreements that give us rights to use certain technologies in our research and development.

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### ***ACP-103***

Two U.S. patents have been issued to us that provide generic coverage for ACP-103. Similar claims have also been allowed in our patent applications for ACP-103 in South Africa, Australia, and New Zealand. We continue to prosecute patent applications directed to ACP-103 and to methods of treating various diseases using ACP-103, either alone or in combination with other agents, worldwide. We are aware of claims that 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

### ***ACP-104***

ACP-104 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 directed to the form of ACP-104 known prior to the filing of our patent applications. We have filed patent applications with claims that are directed to the use of ACP-104 as a treatment for neuropsychiatric diseases, either alone or in combination with various other agents. In addition, we have filed patent applications directed to methods of synthesis of ACP-104 and various crystalline polymorphs thereof. We are aware of an issued patent, not owned by us, that claims the use of ACP-104 for treatment of analgesia.

### ***Our Drug Discovery Platform***

Our core R-SAT technology is protected by three issued U.S. patents and 20 foreign patents.

### ***Other Drug Candidates***

We have two issued U.S. patents with claims for compounds that affect muscarinic receptor activity and we continue to pursue patent applications in this area in other countries.

### **Competition**

We face, and will continue to face, intense competition from pharmaceutical and biotechnology companies, as well as numerous academic and research institutions and governmental agencies, both in the United States and abroad. We compete or will compete, as applicable, with existing and new products being developed by our competitors. Some of these competitors are pursuing the development of pharmaceuticals that target the same diseases and conditions that our research and development programs target. In each of our clinical programs, we intend to complete clinical trials designed to evaluate the potential advantages of our drug candidates as compared to the current standard of care.

Even if we and our collaborators are successful in developing our drug candidates, the resulting products would compete with a variety of established drugs in the areas of Parkinson's disease, schizophrenia, neuropathic pain and glaucoma. For example, our potential product for treatment-induced psychosis in Parkinson's disease will compete with off-label use of antipsychotic drugs, including Seroquel, marketed by Astra-Zeneca, and clozapine, a generic drug.

Our potential products for the treatment of schizophrenia would compete with Zyprexa, marketed by Eli Lilly, Risperdal, marketed by Johnson & Johnson, Seroquel, and clozapine. Zyprexa is the market leader with worldwide sales of \$4.2 billion in 2005. While proven effective in schizophrenia and bipolar mania, it produces a variety of adverse events including weight gain, orthostatic hypertension, and other side effects.

In the area of neuropathic pain, our potential products would compete with Neurontin and Lyrica, each marketed by Pfizer, and Cymbalta, marketed by Eli Lilly, as well as with a variety of generic or proprietary

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opioids. In 2003, Neurontin was the first product to be approved by the FDA for the treatment of neuropathic pain. Neurontin, previously the market leading treatment for neuropathic pain with sales of \$2.7 billion in 2004, is now generic. Neurontin is only partially effective and is associated with a range of central nervous system related side effects. Currently, the leading drugs approved for neuropathic pain indications include Lyrica, the successor to Neurontin, and Cymbalta. Lyrica had worldwide sales of \$291 million in 2005. Cymbalta, indicated for treatment of diabetic peripheral neuropathic pain as well as treatment of major depressive disorder, had worldwide sales of \$680 million in 2005.

Our potential products for the treatment of glaucoma would compete with Xalatan, marketed by Pfizer, and Lumigan and Alphagan, marketed by Allergan. Xalatan is the leading drug for glaucoma treatment and had worldwide sales in excess of \$1 billion in 2004. It is an effective anti-glaucoma agent but frequently causes an increased pigmentation of the iris that may lead to a change of iris color. Other side effects of Xalatan include blurred vision and burning and stinging sensations in the eye.

In addition, the companies described above and other competitors may have a variety of drugs in development or awaiting FDA approval that could reach the market and become established before we have a product to sell. Our competitors may also develop alternative therapies that could further limit the market for any drugs that we may develop. Some of our competitors are using functional genomics technologies or other methods to identify and validate drug targets and to discover novel small molecule drugs. 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 and clinical trials of potential pharmaceutical products; and

obtaining FDA and other regulatory clearances.

In addition, many of our competitors and their collaborators have substantially greater advantages in the following areas:

capital resources;

research and development resources;

manufacturing capabilities; and

sales and marketing.

Smaller companies also may prove to be significant competitors, particularly through proprietary research discoveries and collaborative arrangements with large pharmaceutical and established biotechnology companies. Many of our competitors have products that have been approved or are in advanced development. We face competition from other companies, academic institutions, governmental agencies and other public and private research organizations for collaborative arrangements with pharmaceutical and biotechnology companies, in recruiting and retaining highly qualified scientific and management personnel and for licenses to additional technologies. Our competitors, either alone or with their collaborators, may succeed in developing technologies or drugs that are more effective, safer, and more affordable or more easily administered than ours and may achieve patent protection or commercialize drugs sooner than us. Developments by others may render our drug candidates or our technologies obsolete. Our failure to compete effectively could have a material adverse affect on our business.

## **Government Regulation**

## Edgar Filing: ACADIA PHARMACEUTICALS INC - Form 10-K

The manufacturing and marketing of our potential products and our ongoing research and development activities are subject to extensive regulation by numerous governmental authorities in the United States and other countries. Before marketing in the United States, any drug developed by us must undergo rigorous preclinical

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testing and clinical trials and an extensive regulatory clearance process implemented by the FDA under the federal Food, Drug, and Cosmetic Act, as amended. The FDA regulates, among other things, the development, testing, manufacture, safety, efficacy, record keeping, labeling, storage, approval, advertising, promotion, sale and distribution of biopharmaceutical products. None of our drug candidates has been approved for sale in the United States or any foreign market. The regulatory review and approval process, which includes preclinical testing and clinical trials of each drug candidate, is lengthy, expensive and uncertain.

In the United States, drug candidates are tested in animals until adequate proof of safety is established. Clinical trials for new drug candidates are typically conducted in three sequential phases that may overlap. In Phase I, the initial introduction of the drug candidate into healthy human volunteers, the emphasis is on testing for safety or adverse effects, dosage, tolerance, metabolism, distribution, excretion and clinical pharmacology. Phase II involves studies in a limited patient population to determine the initial efficacy of the pharmaceutical for specific targeted indications, to determine dosage tolerance and optimal dosage and to identify possible adverse side effects and safety risks. Once a compound shows evidence of effectiveness and is found to have an acceptable safety profile in Phase II evaluations, Phase III trials are undertaken to more fully evaluate clinical outcomes. Before commencing clinical investigations in humans, we or our collaborators must submit to the FDA an Investigational New Drug Application, or IND, which must also be approved by the FDA. Regulatory authorities may require additional data before allowing the clinical studies to commence or proceed from one phase to another, and could demand that the studies be discontinued or suspended at any time if there are significant safety issues. We have in the past and may in the future rely on some of our collaborators to file INDs and generally direct the regulatory approval process for many of our potential products. Clinical testing must also meet requirements for institutional review board oversight, informed consent and good clinical practices.

Securing FDA approval requires the submission of extensive preclinical and clinical data and supporting information to the FDA for each indication to establish a drug candidate's safety and efficacy. These data are submitted to the FDA in the form of a New Drug Application, or NDA. The approval process takes many years and requires the expenditure of substantial resources. Information generated in this process is susceptible to varying interpretations that could delay, limit or prevent regulatory approval at any stage of the process. The failure to demonstrate adequately the quality, safety and efficacy of a drug candidate under development would delay or prevent regulatory approval of the drug candidate. We cannot assure you that, even if clinical trials are completed, either our collaborators or we will submit applications for required authorizations to manufacture and/or market potential products or that any such application will be reviewed and approved by the appropriate regulatory authorities in a timely manner, if at all. Under applicable laws and FDA regulations, each NDA submitted for FDA approval is usually given an internal administrative review within 45 to 60 days following submission of the NDA. If deemed complete, the FDA will file the NDA, thereby triggering substantive review of the application. The FDA can refuse to file any NDA that it deems incomplete or not properly reviewable. The FDA has established internal goals of six months for priority NDAs and 10 months for regular NDAs. However, the FDA is not legally required to complete its review within these periods and these performance goals may change over time. Moreover, the outcome of the review, even if generally favorable, typically is not an actual approval but an action letter that describes additional work that must be done before the NDA can be approved. The FDA's review of an NDA may involve review and recommendations by an independent FDA advisory committee.

Before receiving FDA clearance to market a potential product, we or our collaborators must demonstrate through adequate and well-controlled clinical studies that the potential product is safe and effective on the patient population that will be treated. If regulatory clearance of a potential product is granted, this clearance will be limited to those disease states and conditions for which the product is useful, as demonstrated through clinical studies. Marketing or promoting a drug for an unapproved indication is generally prohibited. Furthermore, clearance may entail ongoing requirements for post-marketing studies. Even if this regulatory clearance is obtained, a marketed product, its manufacturer and its manufacturing facilities are subject to continuing review and periodic inspections by the FDA. Discovery of previously unknown problems with a product, manufacturer or facility may result in restrictions on this product or manufacturer, including labeling changes, costly recalls or withdrawal of the product from the market.



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Any drug is likely to produce some toxicities or undesirable side effects in animals and in humans when administered at sufficiently high doses and/or for sufficiently long periods of time. Unacceptable toxicities or side effects may occur at any dose level at any time in the course of studies in animals designed to identify unacceptable effects of a drug candidate, known as toxicological studies, or clinical trials of our potential products. The appearance of any unacceptable toxicity or side effect could cause us or regulatory authorities to interrupt, limit, delay or abort the development of any of our drug candidates and could ultimately prevent their clearance by the FDA or foreign regulatory authorities for any or all targeted indications.

We and our collaborators and contract manufacturers also are required to comply with the applicable FDA current good manufacturing practice regulations. Good manufacturing practice regulations include requirements relating to quality control and quality assurance as well as the corresponding maintenance of records and documentation. Manufacturing facilities are subject to inspection by the FDA. These facilities must be approved before we can use them in commercial manufacturing of our potential products. We or our collaborators or contract manufacturers may not be able to comply with the applicable good manufacturing practice requirements and other FDA regulatory requirements.

Outside of the United States, our ability to market a product is contingent upon receiving a marketing authorization from the appropriate regulatory authorities. The requirements governing the conduct of clinical trials, marketing authorization, pricing and reimbursement vary widely from country to country. At present, foreign marketing authorizations are applied for at a national level, although within the European Community, or EC, registration procedures are available to companies wishing to market a product in more than one EC member state. If the regulatory authority is satisfied that adequate evidence of safety, quality and efficacy has been presented, a marketing authorization will be granted. This foreign regulatory approval process involves all of the risks associated with FDA clearance discussed above.

### **Drugs for Serious or Life-Threatening Illnesses**

The Federal Food, Drug and Cosmetic Act, as amended, and FDA regulations provide certain mechanisms for the accelerated Fast Track approval of potential products intended to treat serious or life-threatening illnesses which have been studied for safety and effectiveness and which demonstrate the potential to address unmet medical needs. The procedures permit early consultation and commitment from the FDA regarding the preclinical and clinical studies necessary to gain marketing approval. Provisions of this regulatory framework also permit, in certain cases, NDAs to be approved on the basis of valid surrogate markers of product effectiveness, thus accelerating the normal approval process. Certain potential products employing our technology might qualify for this accelerated regulatory procedure. Even if the FDA agrees that these potential products qualify for accelerated approval procedures, the FDA may deny approval of our drugs or may require that additional studies be required before approval. The FDA may also require us to perform post-approval, or Phase IV, studies as a condition of such early approval. In addition, the FDA may impose restrictions on distribution and/or promotion in connection with any accelerated approval, and may withdraw approval if post-approval studies do not confirm the intended clinical benefit or safety of the potential product.

### **Other U.S. Regulatory Requirements**

In the United States, the research, manufacturing, distribution, sale, and promotion of drug products are potentially subject to regulation by various federal, state and local authorities in addition to the FDA, including the Centers for Medicare and Medicaid Services (formerly the Health Care Financing Administration), other divisions of the United States Department of Health and Human Services, including, for example, the Office of Inspector General, and state and local governments. For example, sales, marketing and scientific/educational grant programs must comply with the Medicare-Medicaid Anti-Fraud and Abuse Act, as amended, the False Claims Act, also as amended, the privacy provisions of the Health Insurance Portability and Accountability Act, or HIPAA, and similar state laws. Pricing and rebate programs must comply with the Medicaid rebate requirements of the Omnibus Budget Reconciliation Act of 1990, as amended, and the Medicare Prescription

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Drug Improvement and Modernization Act of 2003. If drug products are made available to authorized users of the Federal Supply Schedule of the General Services Administration, additional laws and requirements apply. All of these activities are also potentially subject to federal and state consumer protection and unfair competition laws.

**Marketing, Sales and Distribution**

We currently have no marketing, sales or distribution capabilities. In order to commercialize any of our drug candidates, we must develop these capabilities internally or through collaboration with third parties. In selected therapeutic areas where we feel that our drug candidates can be commercialized by a specialty sales force that calls on a limited and focused group of physicians, we plan to commercialize our drug candidates. In therapeutic areas that require a large sales force selling to a large and diverse prescribing population, we plan to partner our drug candidates for commercialization.

**Manufacturing**

We outsource and plan to continue to outsource manufacturing responsibilities for our existing and future drug candidates for development and commercial purposes. The production of ACP-103 and ACP-104 employs small molecule synthetic organic chemistry procedures that are standard in the pharmaceutical industry. Our collaboration agreements provide for our partners to arrange for the production of our drug candidates for use in clinical trials and potential commercialization.

**Employees**

At December 31, 2005, we had 112 employees, of whom 45 hold Ph.D. or other advanced degrees. Of our total workforce, 92 are engaged in research and development activities and 20 are engaged in business development, finance and administration. Seventy-five of our employees are located in the United States and 37 are located in Sweden. None of our employees is represented by a collective bargaining agreement, nor have we experienced work stoppages. We believe that our relations with our employees are good.

**Research and Development Expenses**

Our research and development expenses were \$30.8 million in 2005, \$23.5 million in 2004, and \$16.9 million in 2003.

**Long-Lived Assets**

Information regarding long-lived assets by geographic area is as follows:

	As of December 31,		
	2005	2004	2003
United States	\$ 1,284,900	\$ 1,364,500	\$ 1,660,300
Europe	998,200	1,182,400	1,760,500
<b>Total</b>	<b>\$ 2,283,100</b>	<b>\$ 2,546,900</b>	<b>\$ 3,420,800</b>

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### **Item 1A. Risk Factors.**

*You should consider carefully the following information about the risks described below, together with the other information contained in this report 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 December 31, 2005, we had an accumulated deficit of approximately \$128.4 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. Substantially all of our revenues for the year ended December 31, 2005 were from our agreements with Allergan, Sepracor, and 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 under our existing collaborations 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 drug candidates 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 internal Phase II-stage 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. We also have a neuropathic pain program in Phase II clinical trials in collaboration with Allergan.

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 FDA or other regulatory agencies.



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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 additional trials needed before a new drug application, or NDA, may be submitted to the FDA. Of the large number of drugs in development, only a small percentage result in the submission of an NDA 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 clinical trial 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 trial 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, suspensions or terminations in our clinical trials, the commercial prospects for that 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, 2005, we used \$20.3 million in net cash to fund our operating activities and additional cash for purchases of property and equipment and repayment of long-term debt. Our cash, investment securities, and restricted cash totaled approximately \$55.5 million at December 31, 2005, which amount did not include \$10 million we received in January 2006 from an equity purchase by Sepracor. Although we believe our existing cash resources and anticipated payments from existing agreements with our collaborators will be sufficient to fund our cash

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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;

the costs of establishing or contracting for sales and marketing capabilities if we obtain regulatory clearances to market our drug candidates; and

the costs associated with litigation.

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 substantially all 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, regulatory, and commercialization expertise for selected drug candidates. Substantially all of our revenues for the year ended December 31, 2005 were from our agreements with Allergan, Sepracor, and SMRI. 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.

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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.



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*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 ophthalmic 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 is targeted toward the development of new drug candidates to treat central nervous system disorders. Sepracor currently is engaged in other research programs related to this field that are independent from our collaboration project in this therapeutic area. In addition, 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 by our competitors to competing products and their withdrawal of support for our drug candidates or may otherwise result in lower demand for our potential products.

***We rely on third parties to conduct 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 conduct 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 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;



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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 delay or 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 or our collaborators successfully complete the clinical trials of drug candidates, the drug candidates may fail for other reasons.***

Even if we or our collaborators successfully complete the clinical trials of drug candidates, the drug candidates 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 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

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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 blood monitoring for the first six months of treatment followed by twice monthly monitoring thereafter. 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 and our ability to generate revenues from it.

***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 related disorders. 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.

All of our U.S. 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 therapeutic 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

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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 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 development or commercialization 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, and reporting systems and procedures in at least two countries, and be required to attract and retain sufficient numbers of talented employees in at least two countries. In addition, we may have to develop internal sales, marketing, and distribution capabilities if we decide to market any drug that we may successfully develop. 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 an adverse impact on our operations.*

In June 2005, we consolidated our chemistry operations in a single research and development facility located in Malmö, Sweden. We have incurred, and are likely to incur additional, costs in setting up and adjusting to operations in a new country with a new Swedish subsidiary. Our subsidiary in Sweden, ACADIA Pharmaceuticals AB, employs approximately 33 percent of our total personnel and is 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 our development and commercialization efforts. In addition, 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. 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, including compounds being developed under our collaborations;

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 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;



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the effect of competing technologies and products and market developments;

the costs associated with litigation; 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.

The manufacturers of our drug candidates 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 in obtaining regulatory approval of drug candidates or the ultimate launch of products based on our drug candidates 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 pre-market 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 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 have incurred, and expect to continue to 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 SOX, and rules adopted or proposed by the SEC and by the Nasdaq National Stock Market, have resulted in, and will continue to result in, increased costs to us as we evaluate the implications of these rules and respond to their requirements. Although we have not been required to issue an evaluation of our internal control over financial reporting under Section 404 of SOX until this Annual Report on Form 10-K for the year ended December 31, 2005, preparations for the issuance of this report have resulted in increased costs to us, which may continue to be reflected in our costs of operations. In the future, if we are not able to issue an evaluation of our internal control over financial reporting as required or we or our independent registered public accounting firm determine that 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. 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 coverage that is the



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same or similar to our current 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 total amount of the costs we may incur or the timing of such costs to comply with these rules and regulations.

### ***Changes in stock option accounting treatment will adversely affect our results of operations.***

Changes in stock option accounting treatment, which commenced with the period beginning 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 Statement of Financial Accounting Standards 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) commencing with our first quarter of 2006. We are currently evaluating the requirements of SFAS 123(R) and have not yet fully determined its impact on our consolidated financial statements. However, we anticipate that it will have a significant impact on our results of operations.

### ***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.

### ***Ongoing litigation may consume our management and financial resources and could adversely affect our business.***

Approximately \$8.4 million in the aggregate has been awarded against us in connection with a jury verdict in a civil action rendered in August 2005, which is currently accruing interest. While we have posted a bond and

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filed a notice of appeal, there can be no assurance that we will prevail in our efforts to contest the verdict. As a result of posting the bond, we have \$12.5 million of restricted cash as of December 31, 2005. This amount is reflected as part of our cash and assets but, if we do not prevail in overturning the verdict, we may not be able to use some or all of that restricted cash. We will incur additional legal costs in connection with an appeal. The appeal will also require the attention of certain of our employees whose time could be used to further our business objectives. These proceedings may consume a substantial portion of our management and financial resources, regardless of outcome, and may take years to ultimately resolve. If these proceedings are resolved unfavorably, our financial condition would be harmed.

### **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 numerous 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 a limited number of patents, worldwide, 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

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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

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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 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, if the claims of our pending patent applications issue, 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-desmethylozapine, 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 directed to the form of ACP-104 known prior to the filing of our patent applications. We have filed method of use patent applications for ACP-104, but a competitor could use ACP-104, and patent its method of use, for a treatment not covered by our patent applications. In addition, while we have filed patent applications directed to methods of synthesis of ACP-104 and various crystalline polymorphs thereof, those claims, if they issue, will not prevent a potential competitor from making ACP-104 using any method of synthesis or from using any polymorphic form of ACP-104, which is outside the scope of the claims that ultimately may issue.

***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.

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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 also generally provide that inventions conceived by the party in the course of rendering services to us will be our exclusive property. However, 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 Mark Brann, Ph.D., our founder, President, and Chief Scientific Officer.

*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. If 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 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 become involved in litigation, it could consume a substantial portion of our managerial and financial resources, regardless of whether we win or lose. We may not be able to afford the costs of litigation. Any legal action against our company or our collaborators could lead to:

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

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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, 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 post-approval 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.

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*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 antipsychotic drugs, including Seroquel, marketed by Astra-Zeneca, and with 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, and clozapine. In the area of neuropathic pain, potential products would compete with Neurontin and Lyrica, 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

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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**