

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549**

**Form 10-K**

(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, 2012

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

**ACADIA PHARMACEUTICALS INC.**

(Exact Name of Registrant as Specified in Its Charter)

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:  
(858) 558-2871

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

Title of each class	Name of each exchange on which registered
Common Stock, par value \$0.0001 per share	The NASDAQ Global Market

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

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 whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). 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, a non-accelerated filer, or a smaller reporting company. See definitions of "large accelerated filer", "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Securities Exchange Act of 1934:

Large accelerated filer

Accelerated filer

Non-accelerated filer  (Do not check if a smaller reporting company)

Smaller reporting company

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, 2012, 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 \$92.8 million, based on the closing price of the registrant's common stock on the NASDAQ Global Market on June 29, 2012 of \$1.76 per share.

As of March 1, 2013, 78,758,017 shares of the 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 April 30, 2013 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,” “plans,” “intends,” “estimates,” “could,” “should,” “would,” “continue,” “seeks,” “aims,” “projects,” “predicts,” “pro forma,” “anticipates,” “potential” or other similar words (including their use in the negative), or by discussions of future matters such as the development of product 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 innovative small molecule drugs that address unmet medical needs in neurological and related central nervous system disorders. We have a pipeline of product candidates led by pimavanserin, which is in Phase III development as a potential first-in-class treatment for Parkinson’s disease psychosis. We recently reported successful top-line results from a pivotal Phase III trial with pimavanserin in patients with Parkinson’s disease psychosis. We hold worldwide commercialization rights to pimavanserin. Our pipeline also includes clinical-stage programs for chronic pain and glaucoma in collaboration with Allergan, Inc., and two advanced preclinical programs directed at Parkinson’s disease and other neurological disorders. All of the product candidates in our pipeline emanate from discoveries made at ACADIA.

Our pipeline of product candidates addresses diseases that are not well served by currently available therapies and that represent large potential commercial market opportunities. We believe our product candidates offer innovative therapeutic approaches and may provide significant advantages relative to current therapies. Our pipeline consists of the following product candidates and programs:

***Pimavanserin.*** Pimavanserin is a new chemical entity that we discovered and have advanced to Phase III development, potentially positioning it to be the first drug approved in the United States for the treatment of Parkinson’s disease psychosis. This debilitating disorder develops in up to 60 percent of patients with Parkinson’s disease. Parkinson’s disease psychosis substantially contributes to the burden of Parkinson’s disease and deeply affects the quality of life of patients. Parkinson’s disease psychosis is associated with increased caregiver distress and burden, nursing home placement, and increased morbidity and mortality. Currently, there are no drugs approved to treat Parkinson’s disease psychosis in the United States. Pimavanserin provides an innovative, non-dopaminergic approach to treating this disorder by selectively blocking a key serotonin receptor

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that plays an important role in psychosis. We believe pimavanserin has the potential to be the first effective and safe drug that will treat Parkinson's disease psychosis without compromising motor control, thereby significantly improving the quality of life for patients with Parkinson's disease.

In November 2012, we announced successful top-line results from a pivotal Phase III clinical trial evaluating the efficacy, tolerability and safety of pimavanserin in patients with Parkinson's disease psychosis. Pimavanserin met the primary endpoint of the study by demonstrating highly significant antipsychotic efficacy. Pimavanserin also met the key secondary endpoint for motoric tolerability. These results were further supported by a highly significant improvement in the secondary efficacy measure, and by clinical benefits observed in exploratory efficacy measures of sleep and caregiver burden. Consistent with previous studies, pimavanserin was safe and well tolerated in this Phase III trial. We are currently preparing to initiate a second, confirmatory pivotal Phase III trial in the first half of 2013. We are focused on advancing our Phase III program toward registration for Parkinson's disease psychosis.

We believe that pimavanserin also has the potential to address a range of other neurological and psychiatric disorders, including Alzheimer's disease psychosis and schizophrenia, which are underserved by currently marketed antipsychotic drugs. We have completed a Phase II trial with pimavanserin as a co-therapy in schizophrenia and are planning to initiate a Phase II trial in the second half of 2013 to evaluate the use of pimavanserin as a treatment for patients with Alzheimer's disease psychosis.

**Alpha Adrenergic Agonists.** In collaboration with Allergan, we have discovered and are developing small molecule product candidates for the treatment of chronic pain. Chronic pain is a common form of persistent pain that may be related to a number of medical conditions and is often resistant to treatment. Allergan has conducted several Phase II trials in this program and has reported preliminary results, including positive proof-of-concept in a human visceral pain trial and efficacy signals in two chronic pain trials in the areas of fibromyalgia and irritable bowel syndrome. Allergan has announced that it is seeking a partner for the further development of this program and for commercialization in areas predominantly served by general practitioners.

**Muscarinic Agonist.** We have discovered and, in collaboration with Allergan, are developing a small molecule product candidate for the treatment of glaucoma. Glaucoma is a chronic eye disease and is the second leading cause of blindness in the world. Our selective muscarinic agonist has demonstrated a promising preclinical profile, including robust efficacy and a long duration of action. This program has reached Phase I development.

**ER-Beta Program.** We have discovered a compound that exhibits anti-inflammatory and neuroprotective properties in preclinical models and may have the ability to slow down the progression of Parkinson's disease. This compound also may address symptoms of chronic, inflammatory and neuropathic pain, as well as serve as a new approach to the treatment of neurodegeneration associated with multiple sclerosis. We are currently pursuing research and development in this program pursuant to a grant from the National Institute of Neurological Disorders and Stroke, a division of the National Institutes of Health, and through funding from Fast Forward, LLC, and EMD Serono, a subsidiary of Merck KGaA.

**Nurr-1 Program.** We have discovered a compound that activates Nurr1-RXR complexes and promotes viability of dopamine-containing neurons in preclinical models. We are conducting studies to examine the effect of this compound on neuroprotection and neurodegeneration in preclinical models of Parkinson's disease pursuant to a grant from The Michael J. Fox Foundation. We believe that our Nurr-1 program provides the potential for an innovative disease-modifying therapy for treating Parkinson's disease and other neurological disorders.

We have assembled a management team with significant industry experience to lead the discovery and development of our product candidates. We complement our management team with a group of scientific and clinical advisors that includes recognized experts in the fields of Parkinson's disease psychosis, schizophrenia, and other central nervous system disorders.

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We maintain a website at [www.acadia-pharm.com](http://www.acadia-pharm.com), to which we regularly post copies of our press releases as well as additional information about us. Our filings with the Securities and Exchange Commission, or SEC, are available free of charge through our website as soon as reasonably practicable after being electronically filed with or furnished to the SEC. Interested persons can subscribe on our website to email alerts that are sent automatically when we issue press releases, file our reports with the SEC or post certain other information to our website. Information contained in our website does not constitute a part of this report or our other filings with the SEC.

### **Our Strategy**

Our goal is to discover, develop, and commercialize innovative small molecule drugs that address unmet medical needs in neurological and related central nervous system disorders. Key elements of our strategy are to:

- ***Develop and commercialize our lead product candidate, pimavanserin, for Parkinson’s disease psychosis.*** We have selected Parkinson’s disease psychosis as our lead indication for pimavanserin and we are focused on advancing our Phase III program toward registration for this indication. We plan to complete the development in this program and position pimavanserin as a first-in-class treatment for patients with Parkinson’s disease psychosis. If successful, we intend to participate in the commercialization of pimavanserin for this indication in the United States by establishing a small specialty sales force that calls on a focused group of neurologists. We may choose to commercialize pimavanserin in markets outside of the United States by establishing one or more strategic alliances in the future.
- ***Maximize the commercial potential of pimavanserin by expanding to additional neurological and psychiatric disorders.*** We intend to use our Phase III Parkinson’s disease psychosis program as a foundation to develop and commercialize pimavanserin for additional neurological and psychiatric indications that are underserved by currently available antipsychotics and represent large unmet medical needs. This may include development of pimavanserin as a treatment for psychoses associated with other neurological disorders, including Alzheimer’s disease, and as a co-therapy for schizophrenia. We plan to retain commercialization rights in therapeutic areas where we feel pimavanserin can be sold by a specialty sales force that calls on a focused group of physicians. In therapeutic areas that require large specialty or primary care sales forces, we may elect to complete late-stage development and commercialization through, or in collaboration with, partners.
- ***Continue to develop our other product candidates for the treatment of central nervous system and related disorders.*** We plan to continue developing our other product candidates, including our collaborative programs with Allergan, and our advanced internal preclinical programs. While our resources are currently focused on our most advanced product candidates, most notably pimavanserin, we may choose to pursue additional product candidates in the future. These may be directed at neurological and related central nervous system disorders and may be developed independently or in partnerships. We believe that a diversified pipeline will mitigate risks inherent in drug development and increase the likelihood of commercial success.
- ***Opportunistically in-license or acquire complementary products or product candidates.*** Although all of the product candidates currently in our pipeline emanate from internal discoveries, in the future we may elect to in-license or acquire preclinical assets, clinical-stage product candidates or products to augment our pipeline and to leverage any sales force that we may establish in the future.

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### **Disease and Market Overview**

Our product candidates address diseases that are not well served by currently available therapies and that represent large potential commercial market opportunities. Background information on the diseases and related commercial markets that may be addressed by our product candidates is set forth below.

#### ***Parkinson's Disease Psychosis***

Parkinson's disease is a chronic and progressive neurodegenerative disorder that involves malfunction and death of neurons in a region of the brain that controls movement. This neurodegeneration creates a shortage of an important brain signaling chemical, or neurotransmitter, known as dopamine, thereby rendering patients unable to direct or control their movements in a normal manner. Parkinson's disease is characterized by well-known motor symptoms including tremors, limb stiffness, slowness of movements, and difficulties with posture and balance, as well as by non-motor symptoms, which often include psychosis. Parkinson's disease progresses slowly in most people and the severity of symptoms tends to worsen over time.

Parkinson's disease is the second most common neurodegenerative disorder after Alzheimer's disease. According to the National Parkinson Foundation, about one million people in the United States and from four to six million people worldwide suffer from this disease. Parkinson's disease is more common in people over 60 years of age, and the prevalence of this disease is expected to increase significantly as the average age of the population increases. Parkinson's disease patients are commonly treated with dopamine replacement therapies such as levodopa, commonly referred to as L-dopa, which is metabolized to dopamine, and dopamine agonists, which are molecules that mimic the action of dopamine.

Studies have suggested that up to 60 percent of patients with Parkinson's disease will develop Parkinson's disease psychosis, which is a debilitating disorder commonly characterized by visual hallucinations and delusions. The development of psychosis in patients with Parkinson's disease substantially contributes to the burden of Parkinson's disease and deeply affects their quality of life. Parkinson's disease psychosis is associated with increased caregiver stress and burden, nursing home placement, and increased morbidity and mortality.

Treatment of Parkinson's disease psychosis poses a challenge to physicians. The U.S. Food and Drug Administration, or FDA, has not approved any therapy for Parkinson's disease psychosis. Traditionally, there are two approaches which may be applied in the treatment of this condition. Initially, physicians may attempt to decrease the dose of the dopamine replacement drugs which are administered to manage the motor symptoms of Parkinson's disease. However, this approach is generally not effective in alleviating psychotic symptoms and often comes at the cost of significant worsening of motor function in patients. Therefore, despite substantial limitations, currently marketed antipsychotic drugs are used off-label to treat patients with Parkinson's disease psychosis. Due to their dopamine blocking properties, these drugs may counteract the dopamine replacement therapy and, therefore, often worsen motor symptoms in patients with Parkinson's disease. Current antipsychotic drugs also are associated with a number of side effects, which can be especially problematic for elderly patients with Parkinson's disease. In addition, all current antipsychotic drugs have a black box warning for use in elderly patients with dementia-related psychosis due to increased mortality and morbidity. Nevertheless, because there is no alternative, physicians frequently resort to off-label use of antipsychotic drugs, including Seroquel and the generic drug clozapine, to treat Parkinson's disease psychosis.

The only currently marketed antipsychotic drug that has demonstrated efficacy in reducing psychosis in patients with Parkinson's disease without further impairing motor function is clozapine when given at low doses. Studies suggest that this unique clinical utility of low-dose clozapine arises from its potent blocking of a key serotonin receptor, a protein that responds to the neurotransmitter serotonin, known as the 5-HT<sub>2A</sub> receptor. The use of low-dose clozapine has been approved in Europe, but not in the United States, for the treatment of psychotic disorders in Parkinson's disease. However, routine use of clozapine is limited by its potential to cause a rare, and potentially fatal, blood disorder that necessitates stringent blood monitoring. Currently, there is a large unmet medical need for new therapies that will effectively treat psychosis in patients with Parkinson's disease without compromising motor control or causing other serious side effects in this fragile, elderly patient population.

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### ***Schizophrenia***

Schizophrenia is a severe chronic mental illness that involves disturbances in cognition, perception, emotion, and other aspects of behavior. The positive symptoms of schizophrenia include hallucinations and delusions, while the negative symptoms may manifest as loss of interest and emotional withdrawal. Schizophrenia is associated with persistent impairment of a patient's social functioning and productivity. Cognitive disturbances often prevent patients with schizophrenia from readjusting to society. As a result, patients with schizophrenia are normally required to be under medical care for their entire lives.

According to the National Institute of Mental Health, approximately one percent of the U.S. population suffers from schizophrenia. Worldwide sales of antipsychotic drugs used to treat schizophrenia and other psychiatric conditions exceeded \$28 billion in 2011. These drugs have been increasingly used by physicians to address a range of disorders in addition to schizophrenia, including bipolar disorder and a variety of psychoses and related conditions in elderly patients. Despite their commercial success, current antipsychotic drugs have substantial limitations, including inadequate efficacy and severe side effects.

The first-generation, or typical, antipsychotics that were introduced in the late-1950s block dopamine receptors. While typical antipsychotics are effective against positive symptoms of schizophrenia in many patients, these drugs often induce disabling motor disturbances, and they fail to address or worsen most of the negative symptoms and cognitive disturbances associated with schizophrenia.

Most schizophrenia patients in the United States today are treated with second-generation, or atypical, antipsychotics, which induce fewer motor disturbances than typical antipsychotics, but still fail to address most of the negative symptoms of schizophrenia. In addition, currently prescribed treatments do not effectively address or may exacerbate cognitive disturbances associated with schizophrenia. It is believed that the efficacy of atypical antipsychotics is due to their interactions with dopamine and 5-HT<sub>2A</sub> receptors. The side effects induced by the atypical agents may include weight gain, non-insulin dependent (type II) diabetes, cardiovascular side effects, sleep disturbances, and motor disturbances. We believe that these side effects generally arise either from non-essential receptor interactions or from excessive dopamine blockade.

The limitations of currently available antipsychotics result in poor patient compliance. A study conducted by the National Institute of Mental Health, which was published in *The New England Journal of Medicine* in September 2005, found that 74 percent of patients taking typical or atypical antipsychotics discontinued treatment within 18 months because of side effects or lack of efficacy. We believe there is a large unmet medical need for new therapies that have improved side effect and efficacy profiles.

### ***Alzheimer's Disease Psychosis***

Alzheimer's disease is a progressive neurodegenerative disorder that slowly destroys memory and thinking skills, and eventually even the ability to carry out simple tasks. Its symptoms include cognitive dysfunction, memory abnormalities, progressive impairment in activities of daily living, and a host of behavioral and neuropsychiatric symptoms. Alzheimer's disease primarily affects older people and, in most cases, symptoms first appear after age 60. Alzheimer's disease gets worse over time and is fatal.

According to the Alzheimer's Association, 5.4 million people in the United States are living with Alzheimer's disease and it is currently the fifth leading cause of death for people age 65 and older. While the diagnostic criteria for Alzheimer's disease mostly focus on the related cognitive deficits, it is often the behavioral and psychiatric symptoms that are most troublesome for caregivers and lead to poor quality of life for patients. These symptoms include agitation, aggressive behaviors, and psychosis. Studies have suggested that approximately 25 to 50 percent of Alzheimer's disease patients may develop psychosis, commonly consisting of hallucinations and delusions. The diagnosis of Alzheimer's disease psychosis is associated with more rapid cognitive and functional decline and institutionalization.

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The FDA has not approved any drug to treat Alzheimer's disease psychosis. As symptoms progress and become more severe, physicians often resort to off-label use of antipsychotic medications in these patients. Current antipsychotic drugs are associated with a number of side effects, which can be problematic for elderly patients with Alzheimer's disease. In addition, antipsychotic drugs may exacerbate the cognitive disturbances associated with Alzheimer's disease. Current antipsychotic drugs also have a black box warning for use in elderly patients with dementia-related psychosis due to increased mortality and morbidity. There is a large unmet medical need for a safe and effective therapy to treat the psychosis in patients with Alzheimer's disease.

### ***Chronic Pain***

Chronic pain is a common form of pain that persists or progresses over a long period of time. In contrast to acute pain that usually arises suddenly in response to an identifiable injury and is transient, chronic pain persists over time and is often resistant to medical treatments. Chronic pain may be related to a number of different medical conditions, including diabetes, arthritis, migraine, fibromyalgia, irritable bowel syndrome, cancer, shingles, and previous trauma or injury.

Hypersensitivity is a common feature of many chronic pain disorders, including fibromyalgia and irritable bowel syndrome. Fibromyalgia is a common and complex type of chronic pain characterized by chronic widespread muscle pain, stiffness and tenderness of muscles, tendons and joints without detectable inflammation. It also is often associated with fatigue, sleep disorders, anxiety, depression and disturbances in bowel function. Fibromyalgia affects an estimated 10 million people in the United States, predominately women over the age of 30. Irritable bowel syndrome is one of the most common ailments of the intestines and affects an estimated 15 percent of the U.S. population. Common symptoms of irritable bowel syndrome include abdominal pain or discomfort often reported as cramping, bloating, gas, diarrhea and/or constipation.

There are a variety of drugs used to treat patients with chronic pain, including anticonvulsants, selective serotonin and norepinephrine reuptake inhibitors, or SNRIs, tricyclic antidepressants, opioid painkillers, and non-steroidal anti-inflammatory agents. Currently, the leading drugs include Lyrica, an anticonvulsant approved for postherpetic neuralgia, diabetic neuropathic pain and fibromyalgia, and Cymbalta, an SNRI indicated for treatment of diabetic peripheral neuropathic pain, fibromyalgia, and major depressive disorder. Lyrica and Cymbalta had worldwide sales of \$4.2 billion and \$5.0 billion, respectively, in 2012. Lyrica is the successor to Neurontin, which was the first product to be approved by the FDA for the treatment of neuropathic pain and is now generic.

Only a portion of patients with chronic pain get meaningful relief from anticonvulsants and antidepressants. Side effects of anticonvulsants may include dizziness, somnolence, dry mouth, blurred vision, weight gain, and concentration or attention difficulties. Side effects of SNRIs may include nausea, vomiting, dizziness, sleep disturbances, constipation, dry mouth, anxiety, abnormal vision, headache and sexual dysfunction. Tricyclic antidepressants have long been used to treat depression and these agents may have pain-relieving effects in some patients. Common side effects of these agents include dry mouth, blurred vision, and constipation, difficulty with urination, impaired thinking and tiredness.

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 chronic pain. Opioid painkillers also have significant side effects that limit their usefulness, and prolonged use of these drugs can lead to the need for increasing dosage and potentially to addiction.

Due to these shortcomings of current therapies, we believe that there is a large unmet medical need for new chronic pain therapies with improved efficacy and side effect profiles.



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### ***Glaucoma***

Glaucoma is a chronic eye disease that, if left untreated, can lead to blindness. According to the World Health Organization, glaucoma is the second leading cause of blindness in the world. Loss of vision is caused by degeneration of the optic nerve, which is responsible for carrying images from the eye to the brain. A frequent symptom of glaucoma is increased fluid pressure within the eye, referred to as intraocular pressure. In the early stages of the disease, there may be no symptoms. It is estimated that over four million people in the United States have glaucoma but only half of those know they have it. Older people are at a higher risk for glaucoma and the disease is more common in people over 60 years of age. The prevalence of glaucoma is expected to increase as the average age of the population increases.

Currently there are a variety of options available to treat glaucoma, including eye medications, laser procedures and surgery. These treatment options are intended to decrease intraocular pressure and, thereby, protect the optic nerve. Physicians often treat glaucoma with multiple classes of drugs to optimize therapy and minimize side effects. Drugs used to treat glaucoma include prostaglandin analogs such as Xalatan and Lumigan, beta blockers such as timolol, and alpha agonists such as Alphagan, as well as combined medications. Xalatan, a leading glaucoma treatment with worldwide sales of \$806 million in 2012, is now generic. While Xalatan is an effective anti-glaucoma agent, it frequently causes increased pigmentation of the iris that may lead to a change in iris color, and may cause other side effects, including blurred vision and burning and stinging sensations in the eye. We believe there is a need for new and more effective drugs that can treat glaucoma with fewer side effects and help patients reduce the risk of losing their vision.

### **Our Product Candidates and Programs**

Our pipeline includes three product candidates in clinical development and two programs in advanced preclinical testing. We believe that our product candidates offer innovative therapeutic approaches and may provide significant advantages relative to current therapies. The following table summarizes our product candidates and programs:

<u>Product Candidate/Program</u>	<u>Indication</u>	<u>Stage of Development</u>	<u>Commercialization Rights</u>
Pimavanserin	Parkinson's disease psychosis	Phase III	ACADIA
	Schizophrenia	Phase II (1)	ACADIA
	Alzheimer's disease psychosis	Phase II (2)	ACADIA
Alpha adrenergic agonists	Chronic pain	Phase II	Allergan
Muscarinic agonist	Glaucoma	Phase I	Allergan
ER-Beta program	Chronic pain, Multiple Sclerosis, Parkinson's disease	Preclinical	ACADIA
Nurr-1 program	Parkinson's disease	Preclinical	ACADIA

- (1) We completed a Phase II schizophrenia co-therapy trial.
- (2) We are planning to initiate a Phase II Alzheimer's disease psychosis trial in the second half of 2013.

### ***Pimavanserin***

#### *Overview*

Pimavanserin is a new chemical entity that we discovered and have advanced to Phase III development, potentially positioning it to be the first drug approved in the United States for the treatment of Parkinson's disease psychosis. Pimavanserin is a small molecule that can be taken orally as a tablet once-a-day. Pimavanserin

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selectively blocks the activity of the 5-HT<sub>2A</sub> receptor, a drug target that plays an important role in psychosis. We hold worldwide rights to pimavanserin and have established a patent portfolio, which includes numerous issued patents covering pimavanserin in the United States, Europe and several additional countries.

We have selected Parkinson's disease psychosis as our lead indication for pimavanserin and we are focused on advancing our Phase III program toward registration for this indication. We believe that pimavanserin also has the potential to address a range of other neurological and psychiatric indications that are underserved by currently marketed antipsychotics. We have completed a Phase II trial with pimavanserin as a co-therapy in schizophrenia and we are planning a Phase II trial to evaluate the potential of pimavanserin as a treatment for Alzheimer's disease psychosis. We intend to use our Phase III Parkinson's disease psychosis program as a foundation to develop and commercialize pimavanserin for these and potentially other neurological and psychiatric indications independently or in collaboration with partners.

### *Pimavanserin as a Treatment for Parkinson's Disease Psychosis*

We are in Phase III development with pimavanserin as a potential first-in-class treatment for Parkinson's disease psychosis. Currently, there are no therapies approved to treat Parkinson's disease psychosis in the United States. Pimavanserin offers an innovative, non-dopaminergic approach to treating Parkinson's disease psychosis. We believe that pimavanserin has the potential to be the first effective and safe drug that will treat the psychosis in patients with Parkinson's disease without compromising motor control, thereby significantly improving the quality of life for these patients. As a result, we believe that, if approved, pimavanserin will offer significant advantages relative to current antipsychotics used off-label for the treatment of Parkinson's disease psychosis.

In November 2012, we announced successful top-line results from our pivotal Phase III clinical trial, referred to as the -020 Study, evaluating the efficacy, tolerability and safety of pimavanserin in patients with Parkinson's disease psychosis. The -020 Study was a multi-center, double-blind, placebo-controlled study. A total of 199 patients were enrolled in the study and randomized on a one-to-one basis to receive either 40 mg of pimavanserin or placebo once-daily for six weeks, following a two-week screening period including brief psycho-social therapy. Patients also received stable doses of their existing anti-Parkinson's therapy throughout the study. Pimavanserin met the primary endpoint in the -020 Study by demonstrating highly significant antipsychotic efficacy ( $p=0.001$ ) as measured using the SAPS-PD scale, which consists of nine items from the hallucinations and delusions domains of the Scale for the Assessment of Positive Symptoms. Pimavanserin also met the key secondary endpoint for motoric tolerability as measured using Parts II and III of the Unified Parkinson's Disease Rating Scale, or UPDRS. These results were further supported by a highly significant improvement in the secondary measure of antipsychotic efficacy, the Clinical Global Impression Improvement, or CGI-I scale ( $p=0.001$ ). In addition, clinical benefits were observed in exploratory efficacy measures of sleep and caregiver burden using the SCOPA-sleep and Caregiver Burden scales, respectively. Pimavanserin demonstrated significant improvement on both nighttime sleep ( $p=0.045$ ) and daytime wakefulness ( $p=0.012$ ), and a highly significant improvement on caregiver burden ( $p=0.002$ ). Consistent with previous studies, pimavanserin was safe and well tolerated in this Phase III trial.

Following the successful top-line results in the -020 Study, we are preparing to initiate a second, confirmatory pivotal Phase III trial, referred to as the -021 Study, using the same trial design. We expect to initiate the -021 Study in the first half of 2013. In addition, we are continuing to conduct an open-label safety extension trial, referred to as the -015 Study, involving patients with Parkinson's disease psychosis who have completed the -020 Study and our earlier Phase III studies as well as patients who complete the -021 Study. Patients are eligible to participate in the -015 Study if, in the opinion of the treating physician, the patient may benefit from continued treatment with pimavanserin. The -015 Study, together with a similar extension trial from our earlier Phase II Parkinson's disease psychosis trial, has generated a considerable amount of long-term safety data on pimavanserin. A total of over 200 patients have now been treated with pimavanserin for over one year and our longest single-patient exposure is greater than seven years. We believe that our experience to date suggests that long-term administration of pimavanserin is generally safe and well tolerated in this fragile, elderly patient population.

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### *Pimavanserin as a Co-Therapy for Schizophrenia*

We believe that the optimal relationship between 5-HT<sub>2A</sub> receptor blockade and partial dopamine receptor blockade can be achieved by combining pimavanserin with a low dose of an atypical antipsychotic drug such as risperidone, a commonly prescribed antipsychotic that is now generic. Therefore, we believe co-therapy with pimavanserin may result in enhanced efficacy and fewer side effects relative to existing treatments, thereby providing an improved therapy for patients with schizophrenia.

We published results in 2012 from an earlier multi-center, double-blind, placebo-controlled Phase II trial designed to evaluate pimavanserin as a co-therapy in patients with schizophrenia. The trial results showed several advantages of co-therapy with pimavanserin and a 2 mg, or low, dose of risperidone in patients with schizophrenia. These advantages included efficacy comparable to that of a 6 mg, or standard, dose of risperidone, combined with a faster onset of antipsychotic action and an improved side effect profile, including significantly less weight gain, compared to the standard dose of risperidone. We are considering additional studies that we may elect to pursue for this indication in the future, either independently or in collaboration with a partner.

### *Pimavanserin as a Treatment for Alzheimer's Disease Psychosis*

Patients with Alzheimer's disease psychosis and Parkinson's disease psychosis share many common characteristics. They are typically elderly and frail, and often exhibit similar psychiatric symptoms associated with their respective underlying neurodegenerative disease. In preclinical models of Alzheimer's disease psychosis, we have shown that pimavanserin attenuates psychosis-related behaviors. In addition, pimavanserin has been shown to positively interact with cholinesterase inhibitors to enhance their pro-cognitive and antipsychotic actions in preclinical models. Because of its mechanism of action and the favorable safety profile observed to date in studies conducted in elderly patients with Parkinson's disease psychosis, we believe that pimavanserin also may be ideally suited to address the need for a new treatment for Alzheimer's disease psychosis that is safe, effective and well tolerated.

We have established a protocol for a Phase II trial to evaluate the potential of pimavanserin as a treatment for Alzheimer's disease psychosis. We plan to initiate this study in the second half of 2013.

### *Alpha Adrenergic Agonists*

In collaboration with Allergan, we have discovered and are developing small molecule product candidates for the treatment of chronic pain. Our novel alpha adrenergic agonists provide pain relief in a range of preclinical models, without the side effects of current pain therapies, including sedation and cardiovascular and respiratory effects.

Allergan has conducted several Phase II trials in this program and has reported preliminary results, including positive proof-of-concept in a visceral pain trial in patients that had hypersensitivity of the esophagus, and efficacy signals in two chronic pain trials in the areas of fibromyalgia and irritable bowel syndrome. Allergan has announced that it is seeking a partner for the further development of this program and for commercialization in areas predominantly served by general practitioners.

### *Muscarinic Agonist*

We have discovered and, in collaboration with Allergan, are developing a small molecule product candidate for the treatment of glaucoma. 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 preclinical models, our product candidate has demonstrated a promising preclinical profile, including robust efficacy and a long duration of action. This program has reached Phase I development.

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***ER-Beta Program***

We have discovered a compound that exhibits anti-inflammatory and neuroprotective properties in preclinical models and may have the ability to slow down the progression of Parkinson's disease. This compound also may address symptoms of chronic, inflammatory and neuropathic pain, as well as serve as a new approach to the treatment of neurodegeneration associated with multiple sclerosis. We are currently pursuing research and development in this program pursuant to a grant from the National Institute of Neurological Disorders and Stroke, a division of the National Institutes of Health, and through funding from Fast Forward, LLC, and EMD Serono, a subsidiary of Merck KGaA.

***Nurr-1 Program.***

We have discovered a compound that activates Nurr1-RXR complexes and promotes viability of dopamine-containing neurons in preclinical models. We are conducting studies to examine the effect of this compound on neuroprotection and neurodegeneration in preclinical models of Parkinson's disease pursuant to a grant from The Michael J. Fox Foundation. We believe that our Nurr-1 program provides the potential for an innovative disease-modifying therapy for treating Parkinson's disease and other neurological disorders.

**Our Drug Discovery Platform and Capabilities**

***Overview***

All of our product candidates that are currently in clinical development and earlier stages of discovery and development emanate from internal discoveries. We have demonstrated that our proprietary drug discovery platform can be used to rapidly identify drug-like, small molecule chemistries for a wide range of drug targets. We believe that our expertise combined with our proprietary platform has allowed us to discover product candidates more efficiently than traditional approaches.

***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. A key to our discovery approach has been our set of proprietary functional test systems, or assays, that we developed for a large number of targets predominantly in the G-protein coupled receptor and nuclear receptor gene families. We believe that these gene families represent the most relevant and feasible targets for small molecule drug discovery focused on central nervous system indications. We have used our proprietary assays in conjunction with our proprietary receptor selection and amplification technology, a cell-based assay system which we refer to as R-SAT, to validate drug targets, and to discover novel small molecules that are specific for these targets.

**Collaboration Agreements**

We have established three separate collaboration agreements with Allergan and a technology license agreement with Aventis to leverage our drug discovery platform and related assets, and to advance development of and commercialize selected product candidates. Our collaborations have typically included upfront payments at initiation of the collaboration, research support during the research term, if applicable, milestone payments upon successful completion of specified development objectives, and royalties based upon future sales, if any, of drugs developed under the collaboration. Our current agreements are as follows:

***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, which has been extended by the parties through March 2013. As of December 31, 2012, we had received an aggregate of \$19.5 million under the agreement, consisting of an upfront payment, and

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research funding and related fees. During the extended research term, Allergan is entitled to exclusively license specified chemistry and related assets 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 as well as royalties on future product sales, if any, worldwide. Assuming the license and successful development of a product in the area of eye care, we could receive up to approximately \$13.5 million in aggregate license fees and milestone payments per product under the agreement, as well as royalties on future product sales worldwide, if any.

In July 1999, we entered into a collaboration agreement with Allergan to discover, develop and commercialize selective muscarinic drugs for the treatment of glaucoma. 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, 2012, we had received an aggregate of \$9.6 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 \$15.0 million in the aggregate as well as 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 pain and ophthalmic indications. This agreement was amended in conjunction with the execution and subsequent amendments of the March 2003 collaboration agreement, and provides for the continued development of product 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. We had received an aggregate of \$10.5 million in research funding and milestone payments through December 31, 2012 under this agreement. We are eligible to receive additional milestone payments of up to \$10.0 million in the aggregate as well as royalties on future product sales worldwide, if any. 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 product licensed under the collaboration and at least 10 years from the date of first commercial sale of a product. In addition, each of our Allergan collaboration agreements includes a research term that is shorter but may be renewed if agreed to by the parties.

### ***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 49 issued U.S. patents and 198 issued foreign patents. All of these patents originated from us. In addition, we have 15 provisional and utility U.S. patent applications and 74 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.

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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 have entered into a license agreement, dated as of November 30, 2006, for certain intellectual property rights from the Ipsen Group in order to expand and strengthen the intellectual property portfolio for our serotonin platform. We are a party to various other license agreements that give us rights to use certain technologies in our research and development.

### ***Pimavanserin***

Eighteen U.S. patents have been issued to us that provide protection for pimavanserin, including three that cover the compound generically and eight that specifically cover pimavanserin, polymorphs thereof, the use thereof for treating Parkinson's disease psychosis, Alzheimer's disease psychosis, schizophrenia, sleep disorders, and other methods of treatment. These patents also provide protection for certain methods of producing pimavanserin. The generic coverage expires in 2021. The pimavanserin specific patent and the Parkinson's disease psychosis treatment patent provide protection until June 2027 and 2026, respectively. Our estimation of the above patent terms includes patent term adjustments made by the U.S. Patent and Trademark Office. These patent terms may be subject to change based on new interpretations of the law. The patent that covers polymorphs of pimavanserin provides protection until June 2028. We have 55 issued foreign patents that specifically cover pimavanserin, including patents in 39 European countries, Australia, China, Hong Kong, India, Japan, Mexico, New Zealand, Russia, Singapore and South Africa, which provide patent protection through 2024. We continue to prosecute patent applications directed to pimavanserin and to methods of treating various diseases using pimavanserin, either alone or in combination with other agents, worldwide.

### ***Alpha Adrenergic Agonists***

We have not been issued, and are not pursuing, patents covering the compounds being pursued by Allergan under this collaboration as the compounds are covered by Allergan patents.

### ***Muscarinic Agonist***

We have two U.S. patents that have been issued to us providing coverage for the compounds covered by our collaboration with Allergan for the treatment of glaucoma. These U.S. patents will expire in 2023. We have 47 issued foreign patents and 16 pending foreign applications that cover these compounds. The issued foreign patents for this program will expire in 2022 and 2025.

### ***Other Product Candidates***

We have 13 issued U.S. patents and 23 issued foreign patents with claims for other product candidates that are at earlier stages of development.

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

Our core R-SAT technology is protected by eight issued U.S. patents and 17 foreign patents. Our U.S. patents for R-SAT will expire over the range of 2013 to 2025. The foreign patents covering R-SAT will expire over the range of 2014 to 2024.

### **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, 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.

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Even if we and our collaborators are successful in developing our product candidates, the resulting products would compete with a variety of established drugs in the areas of Parkinson's disease psychosis, schizophrenia, Alzheimer's disease psychosis, chronic pain, and glaucoma. For example, our potential product for the treatment of Parkinson's disease psychosis 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, Abilify, marketed jointly by Bristol-Myers Squibb and Otsuka Pharmaceutical, Seroquel, and clozapine. Zyprexa (olanzapine), Risperdal (risperidone), Seroquel (quetiapine) and clozapine (clozaril) are all now generic in the United States. Our potential product for Alzheimer's disease psychosis would compete with off-label use of antipsychotic drugs.

Our potential products for the treatment of chronic pain 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 opioids. Currently, the leading drugs approved for chronic pain indications include Lyrica, the successor to Neurontin (gabapentin, now a generic drug), and Cymbalta.

Our potential products for the treatment of glaucoma would compete with Xalatan, marketed by Pfizer, and Lumigan and Alphagan, marketed by Allergan. Xalatan (latanoprost) is a leading glaucoma treatment that is now generic.

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. Many of our competitors are using technologies or methods different or similar to ours 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 product candidates or our technologies obsolete. Our failure to compete effectively could have a material adverse affect on our business.

## **Government Regulation**

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 new drug developed by us must undergo rigorous preclinical testing, 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 product 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 product candidate, is lengthy, expensive and uncertain. Moreover, if our product candidates are approved by the FDA, government coverage and reimbursement policies will both directly and indirectly impact our ability to successfully commercialize our products, and such coverage and reimbursement policies will be impacted by future healthcare reform measures. In addition, we may be subject to state and federal laws, including anti-kickback and false claims statutes as well as data privacy laws, which restrict certain business practices in the pharmaceutical industry.

In the United States, product candidates are tested in animals until adequate proof of safety is established. Clinical trials for new product candidates are typically conducted in three sequential phases that may overlap. Phase I trials involve the initial introduction of the product candidate into healthy human volunteers. The emphasis of Phase I trials 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 compound 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.

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 clinical trial registration, institutional review board oversight, informed consent, health information privacy, and good clinical practices.

To establish a new product candidate's safety and efficacy, the FDA requires companies seeking approval to market a drug product to submit extensive preclinical and clinical data, along with other information, for each indication for which the product will be labeled and launched. The data and information are submitted to the FDA in the form of a New Drug Application, or NDA. Generating the required data and information for an NDA 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 product candidate under development would delay or prevent regulatory approval of the product 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 60 days following submission of the NDA. If deemed sufficiently complete to permit a substantive review, the FDA will "file" the NDA. The FDA can refuse to file any NDA that it deems incomplete or not properly reviewable. The FDA has established internal goals of eight months from submission for priority review of NDAs that cover product candidates that offer major advances in treatment or provide a treatment where no adequate therapy exists, and 12 months from submission for the standard review of NDAs. However, the FDA is not legally required to complete its review within these periods, these performance goals may change over time and the



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review is often extended by FDA requests for additional information or clarification. Moreover, the outcome of the review, even if generally favorable, may not be an actual approval but a “complete response letter” that describes additional work that must be done before the NDA can be approved. Before approving an NDA, the FDA will inspect the facilities at which the product is manufactured and will not approve the product unless the manufacturing facility complies with cGMPs. The FDA’s review of an NDA may also involve review and recommendations by an independent FDA advisory committee, particularly for novel indications, such as Parkinson’s disease psychosis.

In addition, delays or rejections may be encountered based upon changes in regulatory policy for product approval during the period of product development and regulatory agency review. Changes in regulatory approval policy, regulations or statutes or the process for regulatory review during products’ development or approval periods may cause delays in the approval or rejection of an application.

Before receiving FDA approval 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 approval of a potential product is granted, this approval will be limited to those disease states and conditions for which the product is approved. Marketing or promoting a drug for an unapproved indication is generally prohibited. Furthermore, FDA approval may entail ongoing requirements for risk management, including post-marketing studies. Even if approval 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 the product or manufacturer, including labeling changes, warning letters, costly recalls or withdrawal of the product from the market.

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 product candidate, known as toxicological studies, or during 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 product candidates. Further, such unacceptable toxicity or side effects could ultimately prevent a potential product’s approval by the FDA or foreign regulatory authorities for any or all targeted indications or limit any labeling claims, even if the product is approved.

Any trade name that we intend to use for a potential product must be approved by the FDA irrespective of whether we have secured a formal trademark registration from the U.S. Patent and Trademark Office. The FDA conducts a rigorous review of proposed product names, and may reject a product name if it believes that the name inappropriately implies medical claims or if it poses the potential for confusion with other product names. The FDA will not approve a trade name until the NDA for a product is approved. If the FDA determines that the trade names of other products that are approved prior to the approval of our potential products may present a risk of confusion with our proposed trade name, the FDA may elect to not approve our proposed trade name. If our trade name is rejected, we will lose the benefit of any brand equity that may already have been developed for this trade name, as well as the benefit of our existing trademark applications for this trade name. If the FDA does not approve our proposed trade name, we may be required to launch a potential product candidate without a brand name, and our efforts to build a successful brand identity for, and commercialize, this product candidate may be adversely impacted.

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. The FDA may conclude that we or our collaborators or contract manufacturers are not in compliance with applicable good manufacturing practice requirements and other FDA regulatory requirements.

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If the product is approved, we must also comply with post-marketing requirements, including, but not limited to, compliance with advertising and promotion regulations enforced by FDA's Office of Prescription Drug Promotion, the Prescription Drug Marketing Act, anti-fraud and abuse laws, healthcare information privacy laws, post-marketing safety surveillance, and disclosure of payments or transfers of value to healthcare professionals. In addition, we are subject to other federal and state regulation including, but not limited to, implementation of corporate compliance programs and reporting of payments and transfers of value to healthcare professionals.

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, marketing authorization will be granted. This foreign regulatory approval process involves all of the risks associated with FDA marketing approval discussed above. In addition, foreign regulations may include applicable post-marketing requirements, including safety surveillance, anti-fraud and abuse laws, and implementation of corporate compliance programs and reporting of payments or transfers of value to healthcare professionals.

### **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. These 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.

### **Coverage and Reimbursement**

Market acceptance and sales of any product candidates that we develop will depend on coverage and reimbursement policies of third-party payors and may be impacted by future healthcare reform measures. Government health administration authorities, private health insurers and other organizations generally decide which drugs they will pay for and establish reimbursement levels for health care. In particular, in the United States, private health insurers and other third-party payers often provide reimbursement for products and services based on the level at which the government (through the Medicare or Medicaid programs) provides reimbursement for such treatments. If a drug product is reimbursed by Medicare, Medicaid or other federal or state health care programs, we, including our sales, marketing and scientific/educational grant programs, must comply with the Medicare-Medicaid Anti-Fraud and Abuse Act, as amended, the False Claims Act, as amended, the federal Anti-Kickback Statute, as amended, and similar state laws. In addition, pricing and rebate programs for drug products reimbursed by Medicare or Medicaid must comply with, as applicable, the Medicaid rebate requirements of the Omnibus Budget Reconciliation Act of 1990, as amended, and the Medicare Prescription Drug Improvement and Modernization Act of 2003.

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In the United States, the European Union and other potentially significant markets for our product candidates, government authorities and third-party payers are increasingly attempting to limit or regulate the price of medical products and services, particularly for new and innovative products and therapies, which has resulted in lower average selling prices. Further, the increased emphasis on managed healthcare in the United States and on country-specific and regional pricing and reimbursement controls in the European Union will put additional pressure on product pricing, reimbursement and usage, which may adversely affect our future product sales and results of operations. These pressures can arise from rules and practices of managed care groups, judicial decisions and governmental laws and regulations related to Medicare, Medicaid and healthcare reform, pharmaceutical reimbursement policies and pricing in general.

The United States and some foreign jurisdictions are considering or have enacted a number of additional legislative and regulatory proposals to change the healthcare system in ways that could affect our ability to sell our products profitably. Among policy makers and payers in the United States and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality and/or expanding access. In the United States, the pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by major legislative initiatives, including, most recently, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act, or collectively, PPACA, which became law in the United States in March 2010 and substantially changed the way healthcare is financed by both governmental and private insurers. Among other cost containment measures, PPACA establishes: an annual, nondeductible fee on any entity that manufactures or imports certain branded prescription drugs and biologic agents; a new Medicare Part D coverage gap discount program; and a new formula that increases the rebates a manufacturer must pay under the Medicaid Drug Rebate Program. In the future, there may continue to be additional proposals relating to the reform of the U.S. healthcare system, some of which could further limit coverage and reimbursement of drug products, including our product candidates.

### **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 & Medicaid Services (formerly the Health Care Financing Administration), other divisions of the United States Department of Health & Human Services, including, for example, the Office of Inspector General, and state and local governments.

In addition, we may be subject to data privacy and security regulation by both the federal government and the states in which we conduct our business. The Health Insurance Portability and Accountability Act of 1996, or HIPAA, as amended by the Health Information Technology and Clinical Health Act, or HITECH, and its implementing regulations, impose certain requirements relating to the privacy, security and transmission of individually identifiable health information. Among other things, HITECH makes HIPAA's privacy and security standards directly applicable to "business associates"—independent contractors or agents of covered entities that receive or obtain protected health information in connection with providing a service on behalf of a covered entity. HITECH also increased the civil and criminal penalties that may be imposed against covered entities, business associates and possibly other persons, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys' fees and costs associated with pursuing federal civil actions. In addition, state laws govern the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating our compliance efforts.

### **Marketing, Sales and Distribution**

We currently have no marketing, sales or distribution capabilities. In order to commercialize any of our product candidates, we must develop these capabilities internally or through collaboration with third parties. In selected therapeutic areas where we feel that our product candidates can be commercialized by a specialty sales

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force that calls on a limited and focused group of physicians, we plan to participate in the commercialization of our product candidates in the United States. In therapeutic areas that require a large sales force selling to a large and diverse prescribing population, we may elect to commercialize through, or in collaboration with, strategic partners. We may choose to commercialize our products in markets outside of the United States by establishing one or more strategic alliances in the future.

### **Manufacturing**

We outsource and plan to continue to outsource manufacturing responsibilities for our existing and future product candidates for development and commercial purposes. The production of pimavanserin 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 product candidates for use in clinical trials and potential commercialization.

### **Employees**

At December 31, 2012, we had 26 employees, of whom 13 hold Ph.D. or other advanced degrees. Of our total workforce, 15 are engaged in research and development activities and 11 are engaged in executive, finance, and administration activities. 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 \$18.8 million in 2012, \$17.3 million in 2011 and \$20.6 million in 2010.

### **Long-Lived Assets**

Our long-lived assets totaled \$42,000 and \$151,000 as of December 31, 2012 and 2011, respectively. All of our long-lived assets are located in the United States.

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

*You should consider carefully the following information about the risks described below, together with the other information contained in this Annual 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, 2012, we had an accumulated deficit of approximately \$367.7 million. We expect to incur net losses over the next several years as we advance our programs and incur significant clinical development costs.

We have not received, and do not expect to receive for at least the next several years, any revenues from the commercialization of our product candidates. Substantially all of our revenues for the year ended December 31, 2012 were from our existing collaborations with Allergan, our collaboration with Meiji Seika Pharma, which terminated in July 2012, and our agreements with other parties, including our research and development grants. We anticipate that collaborations, which provide us with research funding and potential milestone payments and royalties, and grant funding will continue to be our primary sources of revenues for the next several years.

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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 product 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.

***The pivotal Phase III study with pimavanserin in Parkinson's disease patients with psychosis, the results of which were announced in November 2012, was our first successful pivotal Phase III trial and there is no guarantee that future studies with pimavanserin in that indication or other indications will be successful.***

The historical rate of failures for product candidates in clinical development is extremely high. In November 2012, we announced results from a successful pivotal Phase III trial, the -020 Study, with pimavanserin for the treatment of Parkinson's disease psychosis. While we plan to conduct a confirmatory pivotal Phase III study, the -021 Study, with the same trial design as the -020 Study, there is no guarantee that we will have the same level of success in that trial, or be successful at all. A previous Phase III study with pimavanserin for the treatment of Parkinson's disease psychosis using a different trial design was unsuccessful. We believe that pimavanserin may also have utility in indications other than Parkinson's disease psychosis, such as Alzheimer's disease psychosis and adjunctive therapy for schizophrenia. However, we have never tested pimavanserin in clinical studies for Alzheimer's disease psychosis and we have only conducted a Phase II trial for adjunctive therapy in schizophrenia.

If we do not successfully complete clinical development of pimavanserin, we will be unable to market and sell products derived from it and to generate related product revenues. Even if we do successfully complete clinical trials for pimavanserin, those results are not necessarily predictive of results of future trials that may be needed before an 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.

***We depend on collaborations with third parties to develop and commercialize selected product candidates and to provide substantially all of our revenues.***

A key aspect of our strategy is to selectively enter into collaboration agreements 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 product candidates. The ongoing research term of our agreements with Allergan will end in March 2013, unless extended, and additional payments from our agreements with Allergan are dependent on successful advancement of our applicable product candidates. There is no guarantee that revenues from our ongoing collaborations will continue at current or past levels. Given the current economic environment, it is possible that collaborators may elect to reduce their external spending.

Our collaborators may fail to develop or effectively commercialize products using our product 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 or a change in strategic focus;
- decide to pursue a competitive product developed outside of the collaboration; or
- cannot obtain the necessary regulatory approvals.

For example, Allergan has announced that it is seeking a partner for further development and commercialization of drug candidates in our chronic pain program. If Allergan is unable to successfully partner this program, it may elect to not pursue further development. In addition, any partner that Allergan does identify may devote substantially less resources than Allergan has devoted to our chronic pain program to date.

Allergan can terminate our existing collaborations under specific circumstances, including in some cases the right to terminate without cause upon prior notice. We may not be able to renew our existing collaborations on acceptable terms, if at all. We also face competition in our search for new collaborators, if we seek a new partner

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for our pimavanserin program. Given the current economic environment, it is possible that competition for new collaborators may increase. If we are unable to renew any existing collaboration or find new collaborations, we may not be able to continue advancing our programs alone.

***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. Our cash, cash equivalents and investment securities totaled \$108.0 million at December 31, 2012. While we believe that our existing cash resources and anticipated payments from our existing collaborations will be sufficient to fund our cash requirements into 2015, 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:

- the 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;
- our ability to enter into new, and to maintain existing, collaboration and license agreements;
- the extent to which we are obligated to reimburse our collaborators or our collaborators are obligated to reimburse us for clinical trial costs under our collaboration agreements;
- the costs involved in filing, prosecuting, enforcing and defending patent claims and other intellectual property rights;
- the extent to which potential rescission rights for redeemable common stock are exercised;
- the costs of securing manufacturing arrangements for clinical or commercial production;
- the costs of preparing applications for regulatory approvals for our product candidates;
- the costs of establishing, or contracting for, sales and marketing capabilities if we obtain regulatory clearances to market our product candidates; and
- the costs associated with litigation.

Until we can generate significant continuing revenues, we expect to satisfy our future cash needs through our existing cash, cash equivalents and investment securities, strategic collaborations, private or public sales of our securities, debt financings, grant funding, or by licensing all or a portion of our product candidates or technology. Turmoil and volatility in the financial markets have adversely affected the market capitalizations of many biotechnology companies, and generally made equity and debt financing more difficult to obtain. This, coupled with other factors, may limit our access to additional financing over the near-term future. This could have a material adverse effect on our ability to access sufficient funding. We cannot be certain that additional funding will be available to us on acceptable terms, if at all. If funds are not available, we will 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, if obtained, may significantly dilute existing stockholders.

***We do not have a partner for the development of our lead product candidate, pimavanserin, and are solely responsible for the advancement of this program.***

Following the September 2010 merger of Biovail Corporation with Valeant, we entered into an agreement with Biovail, in October 2010, to end our collaboration regarding North American rights to pimavanserin. This agreement allowed us to regain the rights that we had licensed to Biovail and receive a one-time payment of \$8.75 million. Pursuant to the collaboration, Biovail had been responsible for funding development of pimavanserin, and seeking regulatory approval for and any future marketing of pimavanserin in North America.

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Since the end of the collaboration, we have had full responsibility for the pimavanserin program throughout the world. We expect our research and development costs for continued development of pimavanserin to be substantial. While we currently are running the ongoing trials for pimavanserin, in the future we would need to add resources and raise additional funds in order to take this product candidate to market, if we do not secure another partner. Following approval by the FDA, our current strategy is to participate in the commercialization of pimavanserin for Parkinson's disease psychosis in the United States by establishing a small specialty sales force that calls on a focused group of neurologists. In addition, if we commercialize pimavanserin in markets outside of the United States, we will more than likely need to establish one or more strategic alliances in the future for that purpose. Without future collaboration partners in the United States and abroad, we might not be able to realize the full value of pimavanserin.

***Our most advanced product 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.

Our drug development programs are at various stages of development and the historical rate of failures for product candidates is extremely high. In fact, we ended Phase I testing of AM-831 in 2012 and had previously had an unsuccessful Phase III trial with our most advanced product candidate, pimavanserin. Following the reporting of successful results from the Phase III -020 Study with pimavanserin in November 2012, we are planning a confirmatory Phase III study, the -021 Study, which is expected to start in the first half of 2013. An unfavorable outcome in the -021 Study would be a major set-back for the program and for us, generally. In particular, an unfavorable outcome in this or other studies in our pimavanserin program may require us to delay, reduce the scope of, or eliminate this program and could have a material adverse effect on us and the value of our common stock. In addition to our pimavanserin program, we also have clinical programs in collaboration with Allergan for the treatment of chronic pain and glaucoma, which have reached Phase II and Phase I development, respectively, and we expect to commence a Phase II study with pimavanserin for patients with Alzheimer's disease psychosis in the second half of 2013.

In connection with clinical trials, we face risks that:

- a product 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 product 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.

If we do not successfully complete preclinical and clinical development, we will be unable to market and sell products derived from our product candidates and to generate product revenues. Even if we do successfully complete clinical trials, those results are not necessarily predictive of results of additional trials that may be needed before an 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.

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### ***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 product candidate;
- obtaining clearance from the FDA to commence clinical trials pursuant to an IND;
- obtaining institutional review board approval to conduct a clinical trial at a prospective clinical trial site; and
- 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 screening or retention rates of patients in clinical trials;
- serious adverse events or side effects experienced by participants; and
- insufficient supply or deficient quality of product 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 product candidate. If we experience delays, suspensions or terminations in a clinical trial, the commercial prospects for the related product candidate will be harmed, and our ability to generate product revenues will be delayed.

### ***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 or breaches with respect to payments that we believe are due under the applicable agreements, particularly in the current economic environment when companies, including large established ones, may be seeking to reduce external payments;
- disputes on strategy as to what development or commercialization activities should be pursued under the applicable agreements;
- disputes as to the responsibility for conducting development and commercialization activities pursuant to the applicable collaboration, including the payment of costs related thereto;
- 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;



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- delay of a collaborator's development or commercialization efforts with respect to our product candidates; or
- termination or non-renewal of the collaboration.

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

In addition, in 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 the applicable program. 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. Competing products, either developed by our collaborators or to which our collaborators have rights, may result in the allocation of resources by our collaborators to competing products and their withdrawal of support for our product candidates or may otherwise result in lower demand for our potential products.

We have collaborations with Allergan for the development of product candidates related to chronic 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.

***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 product 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 product candidates on our own. 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 product 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;
- these third parties need to be replaced; or
- the quality or accuracy of the data obtained by these 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 product 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 product candidates, the product candidates may fail for other reasons.***

Even if we or our collaborators successfully complete the clinical trials of product candidates, the product candidates may fail for other reasons, including the possibility that the product 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;

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- 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 product candidates or other treatments commercialized by competitors.

### ***Relying on third-party manufacturers may result in delays in our clinical trials, regulatory approvals 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 product candidates, including pimavanserin, for clinical trials. If any of our product 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. While we believe that there are alternative sources available to manufacture our product 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, if they were to occur, they could cause a delay in our development and commercialization efforts. We have not entered into long-term agreements with our current third-party manufacturers or with any alternate suppliers. Although we intend to do so prior to any commercial launch of a product that is approved by the FDA in order to ensure that we maintain adequate supplies of commercial drug product, we may be unable to enter into such agreements or do so on commercially reasonable terms, which could delay a product launch or subject our commercialization efforts to significant supply risk.

The manufacturers of our product candidates are obliged to operate in accordance with FDA-mandated current good manufacturing practices, or cGMPs. In addition, the facilities used by our contract manufacturers or other third party manufacturers to manufacture our product candidates must be approved by the FDA pursuant to inspections that will be conducted after we request regulatory approval from the FDA. 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 product candidates or the ultimate launch of products based on our product 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 product candidates may not gain acceptance among physicians, patients, and the medical community, thereby limiting our potential to generate revenues.***

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

- the 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 product candidate that we discover and/or 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.

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***If we are unable to attract, retain, and motivate key management and research and development 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 product candidates.***

Our success depends on our ability to attract, retain, and motivate highly qualified management and scientific personnel. In particular, our development programs depend on our ability to attract and retain highly skilled development personnel, especially in the fields of central nervous system disorders, including neuropsychiatric and related disorders. In the future, we expect to need to hire additional personnel as we expand our research and development efforts from our current levels. We face competition for experienced scientists, clinical operations personnel, 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 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 product candidates.***

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

Our research and development 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 product candidates to treat diseases or conditions in other therapeutic areas. If we are not able to use our technologies to discover and develop product 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 product candidates to augment the results of our internal discovery activities. If we are unable to identify new product candidates using our drug discovery platform, we may be unable to establish or maintain a clinical development pipeline or generate product revenues.

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

We work with scientific and clinical advisors at academic and other institutions who are experts in the field of central nervous system disorders. They assist us in our research and development efforts and advise us with respect to our clinical trials. These advisors are not our employees and may have other commitments that would limit their future availability to us. Although our scientific and clinical advisors 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 product candidates.

***We will need to continue to manage our organization and we may encounter difficulties with our staffing and any future transitions, which could adversely affect our results of operations.***

We will need to effectively manage our operations and facilities in order to advance our drug development programs, including those covered by our collaborations with Allergan, achieve milestones under our collaboration agreements, facilitate additional collaborations, and pursue other development activities. It is possible that our infrastructure may be inadequate to support our future efforts and growth. In particular, 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 our operations and, accordingly, may not achieve our research, development, and commercialization goals.

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***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 pimavanserin and our other product candidates, including compounds being developed under our collaborations;
- whether we generate revenues or reimbursements by achieving specified research, development or commercialization milestones under any agreements or otherwise receive potential payments under these agreements;
- whether we are required to make payments due to achieving specified milestones under any licensing or similar agreements or otherwise make potential payments under these agreements;
- the incurrence of preclinical or clinical expenses that could fluctuate significantly from period to period, including reimbursement obligations pursuant to our collaboration agreements;
- 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;
- 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 indications of our future performance.

***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, significant costs as a result of laws and regulations relating to corporate governance and other matters.***

Laws and regulations affecting public companies, including provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act that was enacted in July 2010, the provisions of the Sarbanes-Oxley Act of 2002, or SOX, and rules adopted or proposed by the SEC and by The Nasdaq Global Market, have resulted in, and will continue to result in, significant costs to us as we evaluate the implications of these rules and respond to their requirements. We issued an evaluation of our internal control over financial reporting under Section 404 of SOX with our Annual Report. 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 same or similar to our current coverage. The impact of these events

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could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors and board committees, and as our 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.

***Our ability to generate product revenues will be diminished if our products do not receive coverage from payors or sell for inadequate prices, or if patients are unable to obtain adequate levels of reimbursement.***

Patients who are prescribed medicine for the treatment of their conditions generally rely on third-party payors to reimburse all or part of the costs associated with their prescription drugs. Adequate coverage and reimbursement from governmental healthcare programs, such as Medicare and Medicaid, and commercial payors is critical to new product acceptance. Coverage decisions may depend upon clinical and economic standards that disfavor new drug products when more established or lower cost therapeutic alternatives are already available or subsequently become available. Even if we obtain coverage for any approved products, the resulting reimbursement payment rates might not be adequate or may require co-payments that patients find unacceptably high. Patients are unlikely to use any products we may market unless coverage is provided and reimbursement is adequate to cover a significant portion of the cost of those products.

In addition, the market for any products for which we may receive regulatory approval will depend significantly on access to third-party payors' drug formularies, or lists of medications for which third-party payors provide coverage and reimbursement. The industry competition to be included in such formularies often leads to downward pricing pressures on pharmaceutical companies. Also, third-party payors may refuse to include a particular branded drug in their formularies or otherwise restrict patient access to a branded drug when a less costly generic equivalent or other alternative is available.

Third-party payors, whether foreign or domestic, or governmental or commercial, are developing increasingly sophisticated methods of controlling healthcare costs. In addition, in the United States, no uniform policy of coverage and reimbursement for drug products exists among third-party payors. Therefore, coverage and reimbursement for drug products can differ significantly from payor to payor. As a result, the coverage determination process is often a time-consuming and costly process that will require us to provide scientific and clinical support for the use of our products candidates to each payor separately, with no assurance that coverage will be obtained. If we are unable to obtain coverage of, and adequate payment levels for, our products from third-party payors, physicians may limit how much or under what circumstances they will prescribe or administer them and patients may decline to purchase them. This in turn could affect our ability to successfully commercialize any approved products and thereby adversely impact our profitability, results of operations, financial condition, and future success.

***In the future, if we have products that are approved, healthcare legislation may make it more difficult to receive revenues from those products.***

In both the United States and certain foreign jurisdictions, there have been a number of legislative and regulatory proposals in recent years to change the healthcare system in ways that could impact our ability to sell our products profitably. In March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act, or collectively, PPACA, became law in the United States. PPACA substantially changed the way healthcare is financed by both governmental and private insurers and significantly affects the healthcare industry. Among the provisions of PPACA of importance to our potential product candidates are the following:

- an annual, nondeductible fee on any entity that manufactures or imports certain branded prescription drugs and biologic agents, apportioned among these entities according to their market share in certain government healthcare programs, beginning in 2011;
- an increase in the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program, retroactive to January 1, 2010, to 23% and 13% of the average manufacturer price for most branded and generic drugs, respectively;

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- expansion of health care fraud and abuse laws, including the False Claims Act and the Anti-Kickback Statute, new government investigative powers, and enhanced penalties for noncompliance;
- a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D;
- extension of manufacturers' Medicaid rebate liability to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations;
- expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to additional individuals beginning in 2014 and by adding new mandatory eligibility categories for certain individuals with income at or below 133% of the Federal Poverty Level, thereby potentially increasing manufacturers' Medicaid rebate liability;
- expansion of the entities eligible for discounts under the Public Health Service pharmaceutical pricing program;
- new requirements to report certain financial arrangements with physicians and teaching hospitals, as defined in PPACA and its implementing regulations, including reporting any "payments or transfers of value" made or distributed to prescribers, teaching hospitals and other healthcare providers and reporting any ownership and investment interests held by physicians and their immediate family members and applicable group purchasing organizations during the preceding calendar year, with data collection to be required beginning August 1, 2013 and reporting to the Centers for Medicare & Medicaid Services, or CMS, to be required by March 31, 2014 and by the 90th day of each subsequent calendar year;
- a new requirement to annually report drug samples that manufacturers and distributors provide to physicians; and
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research.

Many of the details regarding the implementation of PPACA are yet to be determined and, at this time, it remains unclear the full effect that PPACA would have on our business. On June 28, 2012, the U.S. Supreme Court upheld the constitutionality of PPACA, excepting certain provisions that would have required each state to expand its Medicaid programs or risk losing all of the state's Medicaid funding. At this time, it remains unclear whether there will be any further changes made to PPACA, whether in part or in its entirety. Some states have indicated that they intend to not implement certain sections of PPACA, and some members of the U.S. Congress are still working to repeal PPACA. We cannot predict whether these challenges will continue or other proposals will be made or adopted, or what impact these efforts may have on us.

In addition, in many foreign countries, particularly the countries of the European Union, the pricing of prescription drugs is subject to government control. In some non-U.S. jurisdictions, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing vary widely from country to country. For example, the European Union provides options for its member states to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. A member state may approve a specific price for the medicinal product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. We may face competition from lower-priced products in foreign countries that have placed price controls on pharmaceutical products. In addition, there may be importation of foreign products that compete with any products we may market, which could negatively impact our profitability.

We expect that PPACA, as well as other healthcare reform measures that may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that we may receive for any approved product. Any reduction in reimbursement from Medicare or other government programs may

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result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability, or commercialize any products for which we receive regulatory approval.

***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 related 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 or fire 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 addition, while our facilities have not been adversely impacted by local wildfires, there is the possibility of future fires in the area. In the event of an earthquake or fire, 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. While we do have fire insurance for our property and equipment located in San Diego, any damage sustained in a fire could cause a delay in our research and development efforts and our results of operations could be materially and adversely affected.

### **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 product 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 product 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 worldwide with respect to pimavanserin, we have not been issued patents with respect to each of our filings.

Our ability to obtain patent protection for our product candidates 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 product candidates or the technologies we rely upon;

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- 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;
- others may identify prior art which could invalidate our patents; or
- changes to patent laws that limit the exclusivity rights of patent holders.

Even if we have or obtain patents covering our product candidates or technologies, we may still be barred from making, using and selling our product candidates or technologies because of the patent rights of others. Others have or may have filed, and in the future are likely to file, patent applications covering compounds, assays, genes, gene products or therapeutic products that are similar or identical to ours. There are many issued U.S. and foreign patents relating to genes, nucleic acids, polypeptides, chemical compounds or therapeutic products, and some of these may encompass reagents utilized in the identification of candidate drug compounds or compounds that we desire to commercialize. Numerous U.S. and foreign issued patents and pending patent applications owned by others exist in the area of central nervous system disorders and the other fields in which we are developing products. These could materially affect our ability to develop our product 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 product 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. 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. Additionally, employees whose positions were eliminated in connection with restructurings may seek future employment with our competitors. Although each of our employees is required to sign a confidentiality agreement with us at the time of hire, we cannot guarantee that the confidential nature of our proprietary information will be maintained in the course of such future employment. 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.



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

Because we operate in the highly technical field of drug discovery and development of small molecule drugs, we rely in part on trade secret protection in order to protect our proprietary technology and processes. However, trade secrets are difficult to protect. We enter into confidentiality and intellectual property assignment agreements with our corporate partners, employees, consultants, outside scientific collaborators, sponsored researchers, and other advisors. These agreements generally require that the other party keep confidential and not disclose to third parties all confidential information developed by the party or made known to the party by us during the course of the party's relationship with us. These agreements 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.

### ***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 product 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 product 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 us 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.

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

The patent positions of pharmaceutical and biotechnology companies can be highly uncertain and involve complex legal and factual questions. For example, some of our patent applications will cover gene sequences and products and the uses of those gene sequences and products. Public disclosures and patent applications related to the Human Genome Project and other genomics efforts may limit the scope of our claims or make unpatentable subsequent patent applications. No consistent policy regarding the breadth of claims allowed in biotechnology patents has emerged to date. The U.S. 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 U.S. 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. Similarly, opposition or invalidity proceedings could result in loss of rights or reduction in the scope of one or more claims of a patent in foreign jurisdictions. 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 or may limit the number of patents or claims we can obtain. In particular, there have been proposals to shorten the exclusivity periods available under U.S. patent law that, if adopted, could substantially harm our business. The product candidates that we are developing are protected by intellectual property rights, including patents and patent applications. If any of our product candidates becomes a marketable product, we will rely on our exclusivity under patents to sell the compound and recoup our investments in the research and development of the compound. If the exclusivity period for patents is shortened, then our ability to generate revenues without competition will be reduced and our business could be materially adversely impacted. 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 product candidates. In addition, U.S. patent laws may change which could prevent or limit us from filing patent applications or patent claims to protect our products and/or technologies or limit the exclusivity periods that are available to patent holders. For example, the Leahy-Smith America Invents Act, or the Leahy-Smith Act, was recently signed into law and includes a number of significant changes to U.S. patent law. These include changes to transition from a "first-to-invent" system to a "first-to-file" system and to the way issued patents are challenged. These changes may favor larger and more established companies that have more resources to devote to patent application filing and prosecution. The U.S. Patent and Trademark Office has been in the process of implementing regulations and procedures to administer the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act may affect our ability to obtain, enforce or defend our patents. Accordingly, it is not clear what, if any, impact the Leahy-Smith Act will ultimately have on the cost of prosecuting our patent applications, our ability to obtain patents based on our discoveries and our ability to enforce or defend our issued patents.

If we fail to obtain and maintain patent protection and trade secret protection of our product 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 product 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 product 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 product candidates may be delayed or suspended, which may delay or impede our ability to generate product revenues.

*If four competitors develop and market products that are more effective than our product 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 Parkinson's disease psychosis 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, Fanapt marketed by Novartis Pharmaceuticals, Risperdal, marketed by Johnson & Johnson, Abilify, marketed jointly by Bristol-Myers Squibb and Otsuka Pharmaceutical, Seroquel, and clozapine. Our potential product for Alzheimer's disease psychosis would compete with off-label use of antipsychotic drugs. In the area of chronic 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;

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- preclinical studies and clinical trials of potential pharmaceutical products; and
- obtaining FDA and other regulatory approvals.

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

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

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

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

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

## **Risks Related to Our Common Stock**

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

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

- the development status of our product candidates, including results of our clinical trials for our pimavanserin program or our chronic pain or glaucoma collaborations;
- the initiation, termination, or reduction in the scope of our collaborations or any disputes or developments regarding our collaborations;
- market conditions or trends related to biotechnology and pharmaceutical industries, or the market in general;
- announcements of technological innovations, new commercial products, or other material events by our competitors or us;
- disputes or other developments concerning our proprietary rights;
- changes in, or failure to meet, securities analysts' or investors' expectations of our financial performance;
- our failure to meet applicable Nasdaq listing standards and the possible delisting of our common stock from the Nasdaq Global Market;
- additions or departures of key personnel;
- discussions of our business, products, financial performance, prospects, or stock price by the financial and scientific press and online investor communities such as blogs and chat rooms;
- public concern as to, and legislative action with respect to, genetic testing or other research areas of biopharmaceutical companies, the pricing and availability of prescription drugs, or the safety of drugs and drug delivery techniques;
- regulatory developments in the United States and in foreign countries;
- the announcement of, or developments in, any litigation matters; and
- economic and political factors, including but not limited to economic and financial crises, wars, terrorism, and political unrest.

In particular, our development program with pimavanserin encompasses a number of studies, including Phase III efficacy trials, open-label safety extension trials and a range of supporting studies, including carcinogenicity studies, and drug-drug interaction studies. Another unfavorable outcome in one or more of the studies in the development of pimavanserin could be a major set-back for our company, generally. Such an unfavorable outcome could have a material adverse effect on our company and the value of our common stock.

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

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

A significant number of shares of our common stock are held by a small number of stockholders. Sales of a significant number of shares of our common stock, or the expectation that such sales may occur, could significantly reduce the market price of our common stock. We filed registration statements in connection with

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private financings that we concluded in January 2011 and December 2012, which registrations cover approximately 17.0 million shares and 19.5 million shares of our common stock, respectively. We also have an effective registration statement to sell shares of our common stock on our own behalf, and may elect to sell shares pursuant to such registration from time to time, including pursuant to the At-the-Market Issuance Sales Agreement, or ATM Agreement, that we put in place in March 2012 with MLV & Co. LLC. Through December 31, 2012, we had sold 5.3 million shares for an aggregate of \$17.7 million under the ATM Agreement, which permits total sales of up to \$20 million in the aggregate. Our stock price may decline as a result of the sale of the shares of our common stock included in any of these registration statements.

***Shares sold under our ATM Agreement may be subject to rescission rights and other penalties, requiring us to re-purchase shares sold thereunder.***

We did not timely file a Current Report on Form 8-K for the addition of a new board member in January 2012. Upon becoming aware of the oversight, on December 3, 2012 we filed a Current Report on Form 8-K for the event. As a result of not timely filing this current report, and upon filing our Annual Report on Form 10-K for the year ended December 31, 2011 on March 6, 2012, we became ineligible to use our effective shelf registration statement on Form S-3 (File No. 333-178748). Subsequent to March 6, 2012 and prior to becoming aware of the untimely filing of the current report, we sold shares of our common stock pursuant to the ATM Agreement under this registration statement. These sales consisted of an aggregate of 3,491,500 shares sold from August 13, 2012 to September 19, 2012, at prices ranging from approximately \$1.64 to \$2.29 per share, and an aggregate of 1,855,637 shares sold on November 27, 2012, at an average price of about \$5.74, which we refer to as ATM Sales. Because we were not eligible to use Form S-3 at the time of the ATM Sales, the ATM Sales could be determined to be unregistered sales of securities. Consequently, direct purchasers in the ATM Sales transactions may have rescission rights pursuant to which they could be entitled to recover the amount paid for such shares, plus statutory interest, upon returning the shares to us. If all of the purchasers in the ATM Sales transactions demanded rescission of their purchases and it were determined that every such investor were entitled to such rescission rights, we could be obligated to repay an aggregate of approximately \$7.0 million for the sales in August and September 2012 and approximately \$10.7 million from the sales on November 27, 2012, in each case plus statutory interest. Rescission rights would arise due to a potential violation of Section 5 of the Securities Act of 1933, as amended. In addition, if it were determined that we sold unregistered securities, the sale of any such unregistered securities could subject us to enforcement actions or penalties and fines by federal or state regulatory authorities. We are unable to predict the likelihood of any claims or actions being brought against us in connection with these events, or the amount of any potential penalties or fines.

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

Our directors, executive officers and holders of five percent or more of our outstanding common stock and their affiliates beneficially own a substantial portion of our outstanding common stock. As a result, these stockholders, acting together, have the ability to significantly influence all matters requiring approval by our stockholders, including the election of all of our board members, amendments to our certificate of incorporation, going-private transactions, and the approval of mergers or other business combination transactions. The interests of this group of stockholders may not always coincide with the company's interests or the interests of other stockholders and they may act in a manner that advances their best interests and not necessarily those of our other stockholders.

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

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

- establish that members of the board of directors may be removed only for cause upon the affirmative vote of stockholders owning at least a majority of our capital stock;
- authorize the issuance of “blank check” preferred stock that could be issued by our board of directors to increase the number of outstanding shares and prevent or delay a takeover attempt;
- limit who may call a special meeting of stockholders;
- establish advance notice requirements for nominations for election to the board of directors or for proposing matters that can be acted upon at stockholder meetings;
- prohibit our stockholders from making certain changes to our amended and restated certificate of incorporation or amended and restated bylaws except with 66 <sup>2</sup>/<sub>3</sub> percent stockholder approval; and
- provide for a board of directors with staggered terms.

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

### ***Adverse securities and credit market conditions may significantly affect our ability to raise capital.***

Turmoil and volatility in the financial markets have adversely affected the market capitalizations of many biotechnology companies, and generally made equity and debt financing more difficult to obtain. This, coupled with other factors, may limit access to financing over the near-term future. This could have a material adverse effect on our ability to access funding on acceptable terms, or at all, and our stock price may suffer further as a result.

### ***If we do not meet continued listing requirements, our common stock may be delisted from the Nasdaq Global Market.***

The Nasdaq Global Market imposes, among other requirements, listing maintenance standards as well as minimum bid and public float requirements. In particular, Nasdaq rules require us to maintain a minimum bid price of \$1.00 per share of our common stock and to have a specified level of stockholder equity. If the closing bid price of our common stock is below \$1.00 per share for 30 consecutive trading days or we do not meet other requirements, we would fail to be in compliance with Nasdaq’s continued listing standards and, if we are unable to cure the non-compliance within 180 days, our common stock may be delisted from the Nasdaq Global Market and we may not be able to maintain the continued listing of our common stock on the Nasdaq Global Market. Delisting could adversely affect the market liquidity of our common stock and the market price of our common stock could decrease. Such delisting could also adversely affect our ability to obtain financing for the continuation of our operations.

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**Item 1B. *Unresolved Staff Comments.***

This item is not applicable.

**Item 2. *Properties.***

Our primary facility consists of approximately 29,000 square feet of leased research and office space located in San Diego, California, which is leased through June 2013. We also lease another facility in San Diego that covers approximately 8,000 square feet of laboratory, office, and other space. That lease runs through December 2013, with an option to extend. We believe that our existing facilities are adequate for our current needs.

**Item 3. *Legal Proceedings.***

This item is not applicable.

**Item 4. *Mine Safety Disclosures.***

This item is not applicable.



**PART II**

**Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.**

(a) Our common stock is traded on the NASDAQ Global Market under the symbol "ACAD". The following table sets forth the high and low sale prices for our common stock as reported on the NASDAQ Global Market for the periods indicated.

<u>2012</u>	<u>High</u>	<u>Low</u>
First Quarter	\$2.30	\$1.07
Second Quarter	\$2.19	\$1.29
Third Quarter	\$2.84	\$1.42
Fourth Quarter	\$6.54	\$1.80
<u>2011</u>	<u>High</u>	<u>Low</u>
First Quarter	\$1.88	\$1.12
Second Quarter	\$3.30	\$1.48
Third Quarter	\$1.90	\$0.99
Fourth Quarter	\$1.35	\$0.90

As of March 1, 2013, there were approximately 54 stockholders of record of our common stock. We have not paid any cash dividends to date and do not anticipate any being paid in the foreseeable future.

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**Item 6. Selected Financial Data.**

The following data has been derived from our audited financial statements, including the consolidated balance sheets at December 31, 2012 and 2011 and the related consolidated statements of operations for the three years ended December 31, 2012 and related notes appearing elsewhere in this report. The statement of operations data for the years ended December 31, 2009 and 2008 and the balance sheet data as of December 31, 2010, 2009 and 2008 are derived from our audited consolidated financial statements that are not included in this report. You should read the selected financial data set forth below in conjunction with “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our financial statements and related notes included elsewhere in this report.

	Years Ended December 31,				
	2012	2011	2010	2009	2008
(in thousands, except per share data)					
<b>Consolidated Statement of Operations Data:</b>					
Revenues:					
Collaborative revenues	\$ 4,907	\$ 2,067	\$42,135	\$ 6,399	\$ 1,590
Operating expenses:					
Research and development	18,794	17,309	20,579	41,585	56,750
General and administrative	6,999	7,610	6,462	10,282	11,818
Total operating expenses	25,793	24,919	27,041	51,867	68,568
Income (loss) from operations	(20,886)	(22,852)	15,094	(45,468)	(66,978)
Interest income, net	37	87	45	323	2,734
Net income (loss)	\$(20,849)	\$(22,765)	\$15,139	\$(45,145)	\$(64,244)
Net income (loss) per common share, basic	\$ (0.38)	\$ (0.44)	\$ 0.39	\$ (1.20)	\$ (1.73)
Net income (loss) per common share, diluted	\$ (0.38)	\$ (0.44)	\$ 0.39	\$ (1.20)	\$ (1.73)
Weighted average shares used in computing net income (loss) per common share, basic	55,116	52,183	38,593	37,476	37,113
Weighted average shares used in computing net income (loss) per common share, diluted	55,116	52,183	38,720	37,476	37,113
At December 31,					
	2012	2011	2010	2009	2008
(in thousands)					
<b>Consolidated Balance Sheet Data:</b>					
Cash, cash equivalents and investment securities	\$107,967	\$31,048	\$37,087	\$47,060	\$60,083
Working capital	102,600	25,784	31,890	33,766	51,331
Total assets	108,590	32,114	38,394	49,680	64,677
Long-term debt, less current portion	—	—	32	98	430
Total stockholders’ equity	84,984	23,362	29,688	12,114	52,992

**Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.**

The following discussion and analysis of our consolidated financial condition and results of operations should be read in conjunction with our consolidated financial statements and related notes included elsewhere in this report. Past operating results are not necessarily indicative of results that may occur in future periods. This discussion contains forward-looking statements, which involve a number of risks and uncertainties. Such forward-looking statements include statements about our strategies, objectives, expectations, discoveries, collaborations, clinical trials, proprietary and external programs, products or product candidates, and other statements that are not historical facts, including statements which may be preceded by the words "believes," "expects," "hopes," "may," "will," "plans," "intends," "estimates," "could," "should," "would," "continue," "seeks," "aims," "projects," "predicts," "pro forma," "anticipates," "potential" or similar words. For forward-looking statements, we claim the protection of the Private Securities Litigation Reform Act of 1995. Readers of this report are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date on which they are made. We undertake no obligation to update or revise publicly any forward-looking statements. Forward-looking statements are not guarantees of performance. Actual results or events may differ materially from those anticipated in our forward-looking statements as a result of various factors, including those set forth under the section captioned "Risk Factors" elsewhere in this report. Information in the following discussion for a yearly period means for the year ended December 31 of the indicated year.

**Overview**

**Background**

We are a biopharmaceutical company focused on innovative small molecule drugs that address unmet medical needs in neurological and related central nervous system disorders. We have a pipeline of product candidates led by pimavanserin, which is in Phase III development as a potential first-in-class treatment for Parkinson's disease psychosis. In November 2012, we reported successful top-line results from a pivotal Phase III trial with pimavanserin in patients with Parkinson's disease psychosis. We are currently preparing to initiate a second, confirmatory pivotal Phase III trial in the first half of 2013. We hold worldwide commercialization rights to pimavanserin. Our pipeline also includes clinical-stage programs for chronic pain and glaucoma in collaboration with Allergan, Inc. and two advanced preclinical programs directed at Parkinson's disease and other neurological disorders. All of our product candidates emanate from internal discoveries.

We have incurred substantial operating losses since our inception due in large part to expenditures for our research and development activities. As of December 31, 2012, we had an accumulated deficit of \$367.7 million. We expect to continue to incur operating losses for at least the next several years as we pursue the clinical development of our product candidates.

**Revenues**

We have not generated any revenues from product sales to date and we do not expect to generate revenues from product sales for at least the next several years, if at all. Our revenues to date have been generated substantially from payments under our current and past collaboration agreements. As of December 31, 2012, we had received an aggregate of \$115.0 million in payments under these agreements, including upfront payments, research funding, milestone payments and reimbursed development expenses. We expect our revenues for the next several years to consist primarily of revenues derived from payments under our current agreements with Allergan and potential additional collaborations, as well as grant funding.

We currently are a party to three separate collaboration agreements with Allergan. Pursuant to our March 2003 collaboration agreement with Allergan, we had received an aggregate of \$19.5 million in payments as of December 31, 2012, consisting of an upfront payment, research funding and related fees. This collaboration agreement is focused on the discovery of new therapeutics for ophthalmic indications and originally provided for a three-year research term, which has been extended by the parties through March 2013. Our two other collaboration agreements with Allergan involve the development of product candidates in the areas of chronic

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pain and glaucoma. We are eligible to receive payments upon achievement of development and regulatory milestones, as well as royalties on future product sales, if any, under each of our three collaboration agreements with Allergan. Each of our agreements with Allergan is subject to early termination upon specified events, including, in the case of one of our agreements, if we have a change in control. Upon the conclusion of the research term under each agreement, Allergan may terminate the agreement by notice.

In March 2009, we entered into a collaboration agreement with Meiji Seika Pharma. In July 2012, we and Meiji Seika Pharma jointly decided to discontinue the development program that was being pursued under the collaboration, and the collaboration agreement was terminated pursuant to its terms. Under the agreement, we had received \$3 million in non-refundable license fees as well as payments for the reimbursement of development costs we had incurred in the collaboration.

### **Research and Development Expenses**

Our research and development expenses have consisted primarily of fees paid to external service providers, salaries and related personnel expenses, facilities and equipment expenses, and other costs. We charge all research and development expenses to operations as incurred. Our research and development activities are primarily focused on our most advanced product candidates, including pimavanserin. We currently are responsible for all costs incurred in the development of pimavanserin as well as for the costs associated with our other internal programs. We are not responsible for, nor have we incurred, development expenses in our collaborative programs for chronic pain and glaucoma, which we are pursuing with Allergan. Meiji Seika Pharma was responsible for all development expenses incurred under our collaboration agreement, which terminated in July 2012.

We use external service providers to manufacture our product candidates to be used in clinical trials and for the majority of the services performed in connection with the preclinical and clinical development of our product candidates. We have used our internal research and development resources, including our employees and discovery infrastructure, across several projects and many of our costs have not been attributable to a specific project but were directed to broadly applicable research activities. Accordingly, we have not reported our internal research and development costs on a project basis. To the extent that external expenses are not attributable to a specific project, they are included in other external costs. The following table summarizes our research and development expenses for the years ended December 31, 2012, 2011, and 2010 (in thousands):

	Years Ended December 31,		
	2012	2011	2010
Costs of external service providers:			
Pimavanserin	\$12,401	\$10,373	\$12,506
Other programs	932	1,438	1,087
Subtotal	13,333	11,811	13,593
Internal costs	4,781	4,986	6,387
Stock-based compensation	680	512	599
<b>Total research and development</b>	<b>\$18,794</b>	<b>\$17,309</b>	<b>\$20,579</b>

At this time, due to the risks inherent in the clinical trial process and given the stage of development of our programs, we are unable to estimate with any certainty the costs we will incur for the continued development of our product candidates for potential commercialization. Due to these same factors, we are unable to determine the anticipated completion dates for our current research and development programs. Clinical development timelines, probability of success, and development costs vary widely. While our current focus is primarily on advancing the clinical development of pimavanserin, we anticipate that we will make determinations as to which programs to pursue and how much funding to direct to each program on an ongoing basis in response to the scientific and clinical success of each product candidate, as well as an ongoing assessment of each product candidate's commercial potential and our financial position. We cannot forecast with any degree of certainty

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which product candidates will be subject to future collaborative or licensing arrangements, when such arrangements will be secured, if at all, and to what degree such arrangements would affect our development plans and capital requirements.

We expect our research and development expenses to increase and continue to be substantial as we pursue the development of pimavanserin, including our planned confirmatory pivotal trial and other studies in our Phase III Parkinson's disease psychosis program and a planned Phase II trial in Alzheimer's disease psychosis, and our other product candidates. The lengthy process of completing clinical trials and seeking regulatory approval for our product candidates requires the expenditure of substantial resources. Any failure by us or delay in completing clinical trials, or in obtaining regulatory approvals could cause our research and development expenses to increase and, in turn, have a material adverse effect on our results of operations.

### ***General and Administrative Expenses***

Our general and administrative expenses have consisted primarily of salaries and other costs for employees serving in executive, finance, business development, and business operations functions, as well as professional fees associated with legal and accounting services, and costs associated with patents and patent applications for our intellectual property.

### **Critical Accounting Policies and Estimates**

Our discussion and analysis of our financial condition and results of operations is based on our consolidated financial statements. We have identified the accounting policies that we believe require application of management's most subjective judgments, often requiring the need to make estimates about the effect of matters that are inherently uncertain and may change in subsequent periods. Our actual results may differ substantially from these estimates under different assumptions or conditions.

### ***Revenue Recognition***

We recognize revenues in accordance with authoritative guidance established by U.S. Generally Accepted Accounting Principles, or GAAP. Our revenues are primarily related to our collaboration agreements, which may provide for various types of payments to us, including upfront payments, funding of research and development, milestone payments, and licensing fees. Our collaboration agreements also include potential payments for product royalties; however, we have not received any product royalties to date.

We consider a variety of factors in determining the appropriate method of accounting under our collaboration agreements, including whether the various elements can be separated and accounted for individually as separate units of accounting. Where there are multiple deliverables identified within a collaboration agreement that are combined into a single unit of accounting, revenues are deferred and recognized over the expected period of performance. The specific methodology for the recognition of the revenue is determined on a case-by-case basis according to the facts and circumstances of the applicable agreement.

Upfront, non-refundable payments that do not have stand-alone value are recorded as deferred revenue once received and recognized as revenues over the expected period of performance. Revenues from non-refundable license fees are recognized upon receipt of the payment if the license has stand-alone value, we do not have ongoing involvement or obligations, and we can determine the best estimate of the selling price for any undelivered items. When non-refundable license fees do not meet all of these criteria, the license revenues are recognized over the expected period of performance. Non-refundable payments for research funding are generally recognized as revenues over the period the related research activities are performed. Payments for reimbursement of external development costs are generally recognized as revenues using a contingency-adjusted performance model over the expected period of performance. Payments received from grants are recognized as revenues as the related research and development is performed and when collectability is reasonably assured.

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We evaluate milestone payments on an individual basis and recognize revenues from non-refundable milestone payments when the earnings process is complete and collectability is reasonably assured. Non-refundable milestone payments related to arrangements under which we have continuing performance obligations are recognized as revenues upon achievement of the associated milestone, provided that (i) the milestone event is substantive and its achievability was not reasonably assured at the inception of the agreement and (ii) the amount of the milestone payment is reasonable in relation to the effort expended or the risk associated with the milestone event. Where separate milestone payments do not meet these criteria, we recognize revenue using a contingency-adjusted performance model over the expected period of performance.

### *Accrued Expenses*

We are required to estimate accrued expenses as part of our process of preparing financial statements. Examples of areas in which subjective judgments may be required include costs associated with services provided by contract organizations for preclinical development, manufacturing of clinical materials, and clinical trials. We accrue for costs incurred as the services are being provided by monitoring the status of the trials or services provided, and the invoices received from our external service providers. In the case of clinical trials, a portion of the estimated cost normally relates to the projected cost to treat a patient in the trials, and this cost is recognized based on the number of patients enrolled in the trial. Other indirect costs are generally recognized on a straight-line basis over the estimated period of the study. As actual costs become known to us, we adjust our accruals. To date, our estimates have not differed significantly from the actual costs incurred. However, subsequent changes in estimates may result in a material change in our accruals, which could also materially affect our balance sheet and results of operations.

### *Stock-Based Compensation*

The fair value of each employee stock option and each employee stock purchase plan right granted is estimated on the grant date under the fair value method using the Black-Scholes model, which requires us to make a number of assumptions including the estimated expected life of the award and related volatility. The estimated fair values of stock options or purchase plan rights, including the effect of estimated forfeitures, are then expensed over the vesting period.

## **Results of Operations**

### *Fluctuations in Operating Results*

Our results of operations have fluctuated significantly from period to period in the past and are likely to continue to do so in the future. We anticipate that our quarterly and annual results of operations will be impacted for the foreseeable future by several factors, including the timing and amount of payments received pursuant to our current and potential future collaborations, and the progress and timing of expenditures related to our development efforts. Due to these fluctuations, we believe that the period-to-period comparisons of our operating results are not a good indication of our future performance.

### *Comparison of the Years Ended December 31, 2012 and 2011*

#### *Revenues*

Revenues increased to \$4.9 million in 2012 from \$2.1 million in 2011. This increase was primarily due to the termination of our collaboration with Meiji Seika Pharma in July 2012, at which time we recognized all of the remaining deferred revenue from this collaboration. We recognized a total of \$3.2 million in revenues from this collaboration in 2012 compared to \$505,000 in 2011. Revenues from our collaborations with Allergan totaled \$1.1 million in each of 2012 and 2011. Revenues from our agreements with other parties, including our research and development grants, totaled \$566,000 in 2012 compared to \$486,000 in 2011.

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### *Research and Development Expenses*

Research and development expenses increased to \$18.8 million in 2012, including \$680,000 in stock-based compensation, from \$17.3 million in 2011, including \$512,000 in stock-based compensation. The increase in research and development expenses was primarily due to \$1.5 million in increased external service costs as well as \$529,000 in increased salary and personnel costs offset, in part, by \$566,000 in decreased facility, equipment and other costs associated with our research and development organization. External service costs totaled \$13.3 million, or 71 percent of our research and development expenses, in 2012, compared to \$11.8 million, or 68 percent of our research and development expenses, in 2011. The increase in external service costs was largely attributable to increased clinical costs incurred in our Phase III program for pimavanserin offset, in part, by decreased costs of other programs. We anticipate that our research and development expenses will increase in future periods as we continue to conduct our Phase III program for pimavanserin in Parkinson's disease psychosis and initiate a Phase II trial in Alzheimer's disease psychosis and pursue development of our other product candidates.

### *General and Administrative Expenses*

General and administrative expenses decreased to \$7.0 million in 2012, including \$1.3 million in stock-based compensation, from \$7.6 million in 2011, including \$1.1 million in stock-based compensation. The decrease in general and administrative expenses was primarily attributable to a net charge of \$1.1 million incurred during 2011 in connection with the termination of our Swedish facility lease offset, in part, by \$542,000 in increased salary and personnel costs in 2012.

### ***Comparison of the Years Ended December 31, 2011 and 2010***

#### *Revenues*

Revenues decreased to \$2.1 million in 2011 from \$42.1 million in 2010. This decrease was primarily due to the conclusion of our collaboration with Biovail in October 2010, at which time we recognized all remaining revenues related to that collaboration. We recognized \$39.5 million in revenues from that collaboration in 2010. Revenues from our collaborations with Allergan totaled \$1.1 million in each of 2011 and 2010. Revenues from our agreements with other parties, including our collaboration with Meiji Seika Pharma, totaled \$1.0 million in 2011 compared to \$1.5 million in 2010.

#### *Research and Development Expenses*

Research and development expenses decreased to \$17.3 million in 2011, including \$512,000 in stock-based compensation, from \$20.6 million in 2010, including \$599,000 in stock-based compensation. The decrease in research and development expenses was primarily due to \$1.8 million in decreased external service costs and \$1.5 million in decreased facilities, equipment and other costs associated with our research and development organization. External service costs totaled \$11.8 million, or 68 percent of our research and development expenses, in 2011, compared to \$13.6 million, or 66 percent of our research and development expenses, in 2010. The decrease in external service costs was largely attributable to decreased costs incurred in our Phase III program for pimavanserin.

#### *General and Administrative Expenses*

General and administrative expenses increased to \$7.6 million in 2011, including \$1.1 million in stock-based compensation, from \$6.5 million in 2010, including \$984,000 in stock-based compensation. The increase in general and administrative expenses was primarily attributable to a net charge of \$1.1 million resulting from the termination of our Swedish facility lease in April 2011.

## Liquidity and Capital Resources

Since inception, we have funded our operations primarily through sales of our equity securities, payments received under our collaboration agreements, debt financings, and interest income. As of December 31, 2012, we had received \$439.8 million in net proceeds from sales of our equity securities, including \$6.9 million in debt we had retired through the issuance of our common stock, \$115.0 million in payments from collaboration agreements, \$22.4 million in debt financing, and \$22.2 million in interest income.

At December 31, 2012, we had \$108.0 million in cash, cash equivalents and investment securities compared to \$31.0 million at December 31, 2011. We expect to use between \$26 million and \$30 million of our cash resources to fund our operations during 2013. We expect that our current cash, cash equivalents and investment securities, together with anticipated payments from our existing collaborations, will be sufficient to fund our operations at least into 2015.

We will require significant additional financing in the future to fund our operations. Our future capital requirements will depend on, and could increase significantly as a result of, many factors, including:

- the progress in, and the costs of, our clinical trials, preclinical studies and other research and development programs;
- the scope, prioritization and number of research and development programs;
- the ability of our collaborators and us to reach the milestones, or other events or developments, under our collaboration agreements;
- our ability to enter into new, and to maintain existing, collaboration and license agreements;
- the extent to which we are obligated to reimburse our collaborators or our collaborators are obligated to reimburse us for clinical trial costs under our collaboration agreements;
- the costs involved in filing, prosecuting, enforcing and defending patent claims and other intellectual property rights;
- the extent to which potential rescission rights for redeemable common stock are exercised;
- the costs of securing manufacturing arrangements for clinical or commercial production of product candidates;
- the costs of preparing applications for regulatory approvals for our product candidates; and
- the costs of establishing, or contracting for, sales and marketing capabilities if we obtain regulatory clearances to market our product candidates.

Until we can generate significant continuing revenues, we expect to satisfy our future cash needs through strategic collaborations, private or public sales of our equity securities, debt financings, grant funding, or by licensing all or a portion of our product candidates or technology. In March 2012, we entered into an At-The-Market Issuance Sales Agreement, or ATM Agreement, with MLV & Co. LLC, pursuant to which we could elect to issue and sell registered shares of our common stock having an aggregate offering price of up to \$20 million from time to time over a three-year period. As of December 31, 2012, we had raised gross proceeds of \$17.7 million from the sale of 5.3 million shares of common stock under the ATM Agreement. For a discussion of potential rescission rights related to our ATM sales, see Item 15 of Part IV, “Notes to Consolidated Financial Statements—Note 7—Stockholders’ Equity and Redeemable Common Stock”.

We cannot be certain that future funding will be available to us on acceptable terms, or at all. Over the last few years, turmoil and volatility in the financial markets have adversely affected the market capitalizations of many biotechnology companies and generally made equity and debt financing more difficult to obtain. This, coupled with other factors, may limit our access to financing over the near-term future. In particular, any unfavorable development in our pimavanserin program could have a material adverse effect on our ability to raise additional capital.



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If we cannot raise adequate additional capital in the future, we will be required to delay, further reduce the scope of, or eliminate one or more of our research or development programs or our commercialization efforts. We also may be required to relinquish greater or all rights to product candidates at an earlier stage of development or on less favorable terms than we would otherwise choose.

We have invested a substantial portion of our available cash in a money market fund and high quality, marketable debt instruments of corporations, financial institutions and government sponsored enterprises. We have adopted an investment policy and established guidelines relating to credit quality, diversification and maturities of our investments to preserve principal and maintain liquidity. All investment securities have a credit rating of at least AA or A1+/p1 as determined by Moody's Investors Service or Standard & Poor's. Our investment portfolio has not been adversely impacted by the disruption in the credit markets that has occurred during the last few years. However, if there is further and expanded disruption in the credit markets, there can be no assurance that our investment portfolio will not be adversely affected in the future.

Net cash used in operating activities increased to \$21.6 million in 2012 compared to \$19.9 million in 2011 and \$10.7 million in 2010. The increase in net cash used in operating activities in 2012 relative to 2011 was primarily due to changes in operating assets and liabilities, including a decrease in deferred revenue, and a non-cash charge in 2011 resulting from termination of our Swedish facility lease, offset by a decrease in our net loss. Deferred revenue decreased by \$2.8 million in 2012 compared to a decrease in deferred revenue of \$57,000 in 2011. The decrease in deferred revenue in 2012 was primarily due to the termination of our collaboration with Meiji Seika Pharma in July 2012, at which time we recognized all of the remaining deferred revenue from this collaboration.

The increase in net cash used in operating activities in 2011 relative to 2010 was primarily due to a net loss of \$22.8 million in 2011 compared to net income of \$15.1 million in 2010, as well as changes in operating assets and liabilities, including changes in deferred revenue, accounts payable and accrued expenses, and the non-cash charge resulting from termination of our Swedish facility lease during 2011. Deferred revenue decreased by \$57,000 in 2011 compared to a decrease of \$25.3 million in 2010. The decrease in deferred revenue in 2010 was primarily attributable to the conclusion of our collaboration with Biovail in October 2010 and the recognition of all remaining revenue under this collaboration. Accounts payable and accrued expenses increased by an aggregate of \$248,000 in 2011 compared to an aggregate decrease of \$3.1 million in 2010. Our accounts payable and accrued expenses fluctuated significantly during these years primarily due to the timing of payments made and expenses incurred for external service costs related to our clinical trials.

Net cash used in investing activities totaled \$25.5 million in 2012 compared to net cash provided by investing activities of \$6.0 in 2011 and net cash used in investing activities of \$1.1 million in 2010. Net cash provided by or used in investing activities has fluctuated significantly from period to period primarily due to the timing of purchases and maturities of investment securities. The increase in net cash used in investing activities in 2012 relative to net cash provided by investing activities in 2011 was primarily due to increased purchases of investment securities and decreased maturities of investment securities. The increase in net cash provided by investing activities in 2011 relative to the net cash used in investing activities in 2010 was primarily due to the maturities of investment securities exceeding purchases of investment securities.

Net cash provided by financing activities increased to \$98.2 million in 2012 compared to \$13.9 million in 2011 and \$470,000 in 2010. The increase in net cash provided by financing activities during 2012 was primarily due to \$80.5 million in net proceeds received from our December 2012 private equity financing as well as \$17.1 million in net proceeds received from the sale of common stock under the ATM Agreement. The increase in net cash provided by financing activities during 2011 relative to 2010 was primarily due to \$13.9 million in net proceeds received from our January 2011 private equity financing.

The following table summarizes our contractual obligations at December 31, 2012 (in thousands):

	<u>Total</u>	<u>Less than 1 Year</u>	<u>1- 3 Years</u>	<u>4- 5 Years</u>	<u>After 5 Years</u>
Operating leases	<u>\$281</u>	<u>\$ 281</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>

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We have also entered into agreements with contract research organizations and other external service providers for services, primarily in connection with the development of our product candidates. We were contractually obligated for up to approximately \$15.1 million of future services under these agreements as of December 31, 2012. The nature of the work being conducted under our agreements with contract research organizations is such that, in most cases, the services may be stopped on short notice. In such event, we would not be liable for the full amount of the contract. Our actual contractual obligations will vary depending upon several factors, including the progress and results of the underlying services.

In addition, we have entered into an agreement with the Ipsen Group pursuant to which we licensed certain intellectual property rights that complement our patent portfolio. If certain conditions are met, we would be required to make future payments, including milestones, sublicensing fees and royalties. The amount of potential future milestone payments is \$10.5 million in the aggregate, which amount would be offset by any sublicensing fees we may pay under the agreement. Because these milestone payments would only be payable upon the achievement of specified regulatory events and it is uncertain when, or if, such events will occur, we cannot forecast with any degree of certainty when, or if, we will be required to make payments under the agreement. Accordingly, none of these amounts are included in the above table.

### *Off-Balance Sheet Arrangements*

To date, we have not had any relationships with unconsolidated entities or financial partnerships, such as entities referred to as structured finance or special purpose entities, which are established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. As such, we are not materially exposed to any financing, liquidity, market or credit risk that could arise if we had engaged in these relationships.

### **Recent Accounting Pronouncements**

See Item 15 of Part IV, “Notes to Consolidated Financial Statements—Note 2—Summary of Significant Accounting Policies”.

### **Item 7A. Quantitative and Qualitative Disclosures About Market Risk**

#### **Interest Rate Risk**

We invest our excess cash in investment-grade, interest-bearing securities. The primary objective of our investment activities is to preserve principal and liquidity. To achieve this objective, we invest in a money market fund and high quality marketable debt instruments of corporations, financial institutions and government sponsored enterprises with contractual maturity dates of generally less than two years. All investment securities have a credit rating of at least AA or A1+/p1 as determined by Moody’s Investors Service or Standard & Poor’s. We do not have any direct investments in auction-rate securities or securities that are collateralized by assets that include mortgages or subprime debt. If a 10 percent change in interest rates were to have occurred on December 31, 2012, this change would not have had a material effect on the fair value of our investment portfolio as of that date.

#### **Item 8. Financial Statements and Supplementary Data.**

The consolidated financial statements required pursuant to this item are included in Item 15 of this report and are presented beginning on page F-1.

#### **Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure.**

None.

**Item 9A. Controls and Procedures.**

*Disclosure Controls and Procedures*

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our periodic and current reports that we file with the SEC is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable and not absolute assurance of achieving the desired control objectives. In reaching a reasonable level of assurance, management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. In addition, the design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

As of December 31, 2012, we carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level as of December 31, 2012.

*Management's Report on Internal Control Over Financial Reporting*

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America.

As of December 31, 2012, our management assessed the effectiveness of our internal control over financial reporting using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control-Integrated Framework. Based on this assessment, management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, concluded that, as of December 31, 2012, our internal control over financial reporting was effective based on those criteria.

The effectiveness of our internal control over financial reporting as of December 31, 2012 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in its report, which appears under Item 15 in this Annual Report.

*Changes in Internal Control Over Financial Reporting*

An evaluation was also performed under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of any change in our internal control over financial reporting that occurred during our last fiscal quarter and that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting. That evaluation did not identify any change in our internal control over financial reporting that occurred during our latest fiscal quarter and that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

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**Item 9B. Other Information.**

On March 11, 2013, the Compensation Committee of our Board of Directors, acting pursuant to authority delegated to it by our Board of Directors, adopted the ACADIA Pharmaceuticals Inc. Change in Control Severance Benefit Plan (the "Plan").

The Plan entitles our executive officers and other key employees to certain severance payments and benefits in the event of a qualifying termination of employment up to one month prior to or within 13 months following certain change in control events. A qualifying termination is a termination by us for any reason other than cause, or by the employee for good reason. The amount of payments and the type of benefits provided under the Plan vary based on the employee's position and include cash severance payments based on base salary and bonus, accelerated vesting of equity awards, payment for continued coverage under group health plans, and payment for outplacement services. The payments and benefits will replace any severance or similar payments or benefits under an employment agreement or other arrangement with us and are subject to the employee's compliance with the other terms and conditions of the Plan. In order to receive any benefits under the Plan, employees must sign a general release and waiver of all claims against us.

The foregoing is a summary of the material terms of the Plan and is qualified in its entirety by reference to the copy of the Plan that is filed as Exhibit 10.34 to this Annual Report.

**PART III**

**Item 10. *Directors, Executive Officers and Corporate Governance.***

The information required by this Item and not set forth below will be set forth in the section headed “Proposal 1—Election of Directors” in our definitive Proxy Statement for our 2013 Annual Meeting of Stockholders to be filed with the SEC by April 30, 2013 (the “Proxy Statement”) and is incorporated in this report by reference.

We have adopted a code of ethics for directors, officers (including our principal executive officer, principal financial officer and principal accounting officer) and employees, known as the Code of Business Conduct and Ethics. The Code of Business Conduct and Ethics is available on our website at <http://www.acadia-pharm.com> under the Corporate Governance section of our Investors page. We will promptly disclose on our website (i) the nature of any amendment to the policy that applies to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions and (ii) the nature of any waiver, including an implicit waiver, from a provision of the policy that is granted to one of these specified individuals, the name of such person who is granted the waiver and the date of the waiver. Stockholders may request a free copy of the Code of Business Conduct and Ethics from our corporate compliance officer, Glenn F. Baity c/o ACADIA Pharmaceuticals Inc., 3911 Sorrento Valley Boulevard, San Diego, CA 92121.

**Item 11. *Executive Compensation.***

The information required by this Item will be set forth in the section headed “Executive Compensation” in our Proxy Statement and is incorporated in this report by reference.

**Item 12. *Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.***

The information required by this Item will be set forth in the section headed “Security Ownership of Certain Beneficial Owners and Management” in our Proxy Statement and is incorporated in this report by reference.

Information regarding our equity compensation plans will be set forth in the section headed “Executive Compensation” in our Proxy Statement and is incorporated in this report by reference.

**Item 13. *Certain Relationships and Related Transactions, and Director Independence.***

The information required by this Item will be set forth in the section headed “Transactions With Related Persons” in our Proxy Statement and is incorporated in this report by reference.

**Item 14. *Principal Accountant Fees and Services.***

The information required by this Item will be set forth in the section headed “Proposal 2—Ratification of Selection of Independent Registered Public Accounting Firm” in our Proxy Statement and is incorporated in this report by reference.

**PART IV**

**Item 15. Exhibits and Financial Statement Schedules.**

(a) Documents filed as part of this report.

1. The following financial statements of ACADIA Pharmaceuticals Inc. and Report of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm, are included in this report:

	<u>Page Number</u>
<a href="#">Report of Independent Registered Public Accounting Firm</a>	F-1
<a href="#">Consolidated Balance Sheets at December 31, 2012 and 2011</a>	F-2
<a href="#">Consolidated Statements of Operations for Each of the Three Years Ended December 31, 2012, 2011, and 2010</a>	F-3
<a href="#">Consolidated Statements of Comprehensive Income (Loss) for Each of the Three Years Ended December 31, 2012, 2011, and 2010</a>	F-4
<a href="#">Consolidated Statements of Cash Flows for Each of the Three Years Ended December 31, 2012, 2011, and 2010</a>	F-5
<a href="#">Consolidated Statements of Stockholders' Equity for Each of the Three Years Ended December 31, 2012, 2011, and 2010</a>	F-6
<a href="#">Notes to Consolidated Financial Statements</a>	F-7

2. List of financial statement schedules. All schedules are omitted because they are not applicable or the required information is shown in the financial statements or notes thereto.

3. List of Exhibits required by Item 601 of Regulation S-K. See part (b) below.

(b) Exhibits. See the Exhibit Index and Exhibits filed as part of this report.

**SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) of the Securities and Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

ACADIA PHARMACEUTICALS INC.

/s/ ULI HACKSELL  
Uli Hacksell, Ph.D.  
Chief Executive Officer

Date: March 12, 2013

KNOW ALL PERSONS BY THESE PRESENTS, that each individual whose signature appears below constitutes and appoints Uli Hacksell and Thomas H. Aasen, and each of them, his true and lawful attorneys-in-fact and agents with full power of substitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto and all documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities and Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ ULI HACKSELL</u> Uli Hacksell	Chief Executive Officer and Director (Principal Executive Officer)	March 12, 2013
<u>/s/ THOMAS H. AASEN</u> Thomas H. Aasen	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	March 12, 2013
<u>/s/ LESLIE IVERSEN</u> Leslie Iversen	Chairman of the Board	March 12, 2013
<u>/s/ STEPHEN BIGGAR</u> Stephen Biggar	Director	March 12, 2013
<u>/s/ MICHAEL BORER</u> Michael Borer	Director	March 12, 2013
<u>/s/ LAURA BREGE</u> Laura Brege	Director	March 12, 2013
<u>/s/ MARY ANN GRAY</u> Mary Ann Gray	Director	March 12, 2013
<u>/s/ LESTER KAPLAN</u> Lester Kaplan	Director	March 12, 2013
<u>/s/ TORSTEN RASMUSSEN</u> Torsten Rasmussen	Director	March 12, 2013
<u>/s/ WILLIAM M. WELLS</u> William M. Wells	Director	March 12, 2013

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Directors and Stockholders of  
ACADIA Pharmaceuticals Inc.

In our opinion, the consolidated financial statements listed in the index appearing under Item 15(a)(1) present fairly, in all material respects, the financial position of ACADIA Pharmaceuticals Inc. and its subsidiaries at December 31, 2012 and 2011, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2012 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2012, based on criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on these financial statements and on the Company's internal control over financial reporting based on our integrated audit. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP

San Diego, California  
March 12, 2013



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**ACADIA PHARMACEUTICALS INC.**  
**CONSOLIDATED BALANCE SHEETS**  
**(in thousands, except for par value and share data)**

	December 31,	
	2012	2011
<b>Assets</b>		
Cash and cash equivalents	\$ 57,899	\$ 6,889
Investment securities, available-for-sale	50,068	24,159
Prepaid expenses, receivables and other current assets	581	901
Total current assets	108,548	31,949
Property and equipment, net	42	151
Other assets	—	14
Total assets	<u>\$ 108,590</u>	<u>\$ 32,114</u>
<b>Liabilities, redeemable common stock and stockholders' equity</b>		
Accounts payable	\$ 1,375	\$ 1,960
Accrued expenses	4,139	3,504
Current portion of deferred revenue	434	669
Current portion of long-term debt	—	32
Total current liabilities	5,948	6,165
Long-term portion of deferred revenue	—	2,587
Total liabilities	5,948	8,752
Commitments and contingencies (Note 10)		
Redeemable common stock, \$0.0001 par value; 5,347,137 shares and no shares issued and outstanding at December 31, 2012 and 2011, respectively (Note 7)	17,658	—
Stockholders' equity		
Preferred stock, \$0.0001 par value; 5,000,000 shares authorized at December 31, 2012 and 2011; no shares issued and outstanding at December 31, 2012 and 2011	—	—
Common stock, \$0.0001 par value; 150,000,000 shares authorized at December 31, 2012 and 2011; 73,334,216 shares and 52,898,659 shares issued and outstanding at December 31, 2012 and 2011, respectively	7	5
Additional paid-in capital	452,693	370,219
Accumulated deficit	(367,720)	(346,871)
Accumulated other comprehensive income	4	9
Total stockholders' equity	84,984	23,362
Total liabilities, redeemable common stock and stockholders' equity	<u>\$ 108,590</u>	<u>\$ 32,114</u>

The accompanying notes are an integral part of these consolidated financial statements.

**ACADIA PHARMACEUTICALS INC.**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**  
**(in thousands, except per share data)**

	Years Ended December 31,		
	2012	2011	2010
<b>Revenues</b>			
Collaborative revenues	\$ 4,907	\$ 2,067	\$42,135
<b>Operating expenses</b>			
Research and development (includes stock-based compensation of \$680, \$512, and \$599, respectively)	18,794	17,309	20,579
General and administrative (includes stock-based compensation of \$1,250, \$1,086, and \$984, respectively)	6,999	7,610	6,462
Total operating expenses	25,793	24,919	27,041
Income (loss) from operations	(20,886)	(22,852)	15,094
Interest income, net	37	87	45
Net income (loss)	\$(20,849)	\$(22,765)	\$15,139
Net income (loss) per common share, basic	\$ (0.38)	\$ (0.44)	\$ 0.39
Net income (loss) per common share, diluted	\$ (0.38)	\$ (0.44)	\$ 0.39
Weighted average common shares outstanding, basic	55,116	52,183	38,593
Weighted average common shares outstanding, diluted	55,116	52,183	38,720

The accompanying notes are an integral part of these consolidated financial statements.

**ACADIA PHARMACEUTICALS INC.**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)**  
**(in thousands)**

	Years Ended December 31,		
	2012	2011	2010
Net income (loss)	<u>\$ (20,849)</u>	<u>\$ (22,765)</u>	<u>\$ 15,139</u>
Other comprehensive income (loss):			
Unrealized gain (loss) on investment securities	(4)	9	(5)
Foreign currency translation adjustments	(1)	(512)	34
Comprehensive income (loss)	<u>\$ (20,854)</u>	<u>\$ (23,268)</u>	<u>\$ 15,168</u>

The accompanying notes are an integral part of these consolidated financial statements.

**ACADIA PHARMACEUTICALS INC.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
**(in thousands)**

	Years Ended December 31,		
	2012	2011	2010
<b>Cash flows from operating activities</b>			
Net income (loss)	\$(20,849)	\$(22,765)	\$ 15,139
Adjustments to reconcile net income (loss) to net cash used in operating activities:			
Depreciation	109	285	607
Stock-based compensation	1,930	1,598	1,583
Amortization of investment premium	(133)	105	(117)
Non-cash charge resulting from lease termination	—	806	—
Gain on sales of property and equipment	(252)	—	(94)
Changes in operating assets and liabilities:			
Prepaid expenses, receivables and other current assets	320	(131)	671
Other assets	14	106	26
Accounts payable	(585)	(29)	(990)
Accrued expenses	635	277	(2,135)
Deferred revenue	(2,822)	(57)	(25,303)
Other long-term liabilities	—	(92)	(90)
Net cash used in operating activities	<u>(21,633)</u>	<u>(19,897)</u>	<u>(10,703)</u>
<b>Cash flows from investing activities</b>			
Purchases of investment securities	(56,728)	(48,066)	(54,674)
Maturities of investment securities	30,948	54,049	53,486
Proceeds from sales (purchases) of property and equipment	252	(3)	128
Net cash (used in) provided by investing activities	<u>(25,528)</u>	<u>5,980</u>	<u>(1,060)</u>
<b>Cash flows from financing activities</b>			
Proceeds from issuance of common stock and warrants, net of issuance costs	98,204	14,022	823
Repayments of long-term debt	(32)	(78)	(353)
Net cash provided by financing activities	<u>98,172</u>	<u>13,944</u>	<u>470</u>
Effect of exchange rate changes on cash	(1)	13	20
Net increase (decrease) in cash and cash equivalents	51,010	40	(11,273)
<b>Cash and cash equivalents</b>			
Beginning of year	6,889	6,849	18,122
End of year	<u>\$ 57,899</u>	<u>\$ 6,889</u>	<u>\$ 6,849</u>

The accompanying notes are an integral part of these consolidated financial statements.

**ACADIA PHARMACEUTICALS INC.**  
**CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**  
(in thousands, except share data)

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive (Loss) Income	Total Stockholders' Equity
	Shares	Amount				
<b>Balances at January 1, 2010</b>	38,332,119	\$ 4	\$350,872	\$(339,245)	\$ 483	\$ 12,114
Issuance of common stock from exercise of stock options	10,820	—	11	—	—	11
Issuance of common stock pursuant to employee stock purchase plan	81,032	—	65	—	—	65
Issuance of common stock under Committed Equity Financing Facility, net of issuance costs	926,590	—	747	—	—	747
Net income	—	—	—	15,139	—	15,139
Stock-based compensation	—	—	1,583	—	—	1,583
Other comprehensive income	—	—	—	—	29	29
<b>Balances at December 31, 2010</b>	39,350,561	\$ 4	\$353,278	\$(324,106)	\$ 512	\$ 29,688
Issuance of common stock and warrants, net of issuance costs	12,565,446	1	13,899	—	—	13,900
Issuance of common stock from exercise of stock options	10,434	—	13	—	—	13
Issuance of common stock pursuant to employee stock purchase plan	189,879	—	109	—	—	109
Issuance of common stock in connection with lease termination	782,339	—	1,322	—	—	1,322
Net loss	—	—	—	(22,765)	—	(22,765)
Stock-based compensation	—	—	1,598	—	—	1,598
Other comprehensive loss	—	—	—	—	(503)	(503)
<b>Balances at December 31, 2011</b>	52,898,659	\$ 5	\$370,219	\$(346,871)	\$ 9	\$ 23,362
Issuance of common stock and warrants, net of issuance costs	19,000,000	2	80,536	—	—	80,538
Issuance of common stock from exercise of stock options	293,595	—	453	—	—	453
Issuance of common stock pursuant to employee stock purchase plan	205,862	—	123	—	—	123
Issuance of common stock from exercise of warrants on a net issuance basis	936,100	—	—	—	—	—
Issuance of common stock under ATM Agreement, net of issuance costs	5,347,137	1	17,089	—	—	17,090
Reclassification to redeemable common stock	(5,347,137)	(1)	(17,657)	—	—	(17,658)
Net loss	—	—	—	(20,849)	—	(20,849)
Stock-based compensation	—	—	1,930	—	—	1,930
Other comprehensive loss	—	—	—	—	(5)	(5)
<b>Balances at December 31, 2012</b>	<u>73,334,216</u>	<u>\$ 7</u>	<u>\$452,693</u>	<u>\$(367,720)</u>	<u>\$ 4</u>	<u>\$ 84,984</u>

The accompanying notes are an integral part of these consolidated financial statements.

**ACADIA PHARMACEUTICALS INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**1. Organization and Nature of Operations**

ACADIA Pharmaceuticals Inc. (the “Company”) was originally incorporated in Vermont in 1993 as Receptor Technologies, Inc. The Company reincorporated in Delaware in 1997 and its operations are based in San Diego, California. The Company is focused on innovative small molecule drugs that address unmet medical needs in neurological and related central nervous system disorders.

The Company has incurred substantial operating losses since its inception due in large part to expenditures for its research and development activities. As of December 31, 2012, the Company had an accumulated deficit of \$367.7 million. The Company expects to continue to incur operating losses for at least the next several years as it pursues the development of its product candidates.

The Company will require significant additional financing in the future to fund its operations. Future capital requirements will depend on many factors, including the progress in, the outcome of and the costs of the Company’s clinical trials, the scope, prioritization and number of its research and development programs, and the ability of its collaborators and the Company to reach the milestones, and other events or developments under its collaboration and license agreements, and the ability of the Company to enter into new, and to maintain existing, collaboration and license agreements. Until the Company can generate significant continuing revenues, it expects to fund its operations through its existing cash, cash equivalents and investment securities, payments from existing and potential future collaborations, proceeds from private or public sales of its equity securities, debt financing, grant funding, or by licensing all or a portion of its product candidates or technology. The Company cannot be certain that additional funding will be available on acceptable terms, or at all. Conditions in the financial markets and other factors could have a material adverse effect on the Company’s ability to access sufficient funding on acceptable terms, or at all. If the Company cannot raise adequate additional capital, it will be required to delay, further reduce the scope of, or eliminate one or more of its research or development programs or its commercialization efforts. In addition, the Company may be required to relinquish greater, or even all, rights to product candidates at earlier stages of development or on less favorable terms than it would otherwise choose.

**2. Summary of Significant Accounting Policies**

Significant accounting policies followed in the preparation of these financial statements are as follows:

***Principles of Consolidation***

The accompanying consolidated financial statements include the accounts of the Company and its wholly owned subsidiary located in Europe. All intercompany accounts and transactions have been eliminated in consolidation.

***Cash and Cash Equivalents***

The Company considers all highly liquid investments with an initial maturity date at the date of purchase of three months or less to be cash equivalents.

***Investment Securities***

Investment securities are considered to be available-for-sale and are carried at fair value. Unrealized gains and losses, if any, are reported as a separate component of stockholders’ equity. The cost of investment securities classified as available-for-sale is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization and accretion are included in interest income. Realized gains and losses, if any, are also included in interest income. The cost of securities sold is based on the specific identification method.

**ACADIA PHARMACEUTICALS INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

***Fair Value of Financial Instruments***

For financial instruments, consisting of cash and cash equivalents, accounts payable and accrued expenses included in the Company's financial statements, the carrying amounts are reasonable estimates of fair value due to their short maturities. Estimated fair values for investment securities, which are separately disclosed elsewhere, are based on quoted market prices for the instruments or other observable inputs.

***Property and Equipment***

Property and equipment are recorded at cost and depreciated over their estimated useful lives (generally three to ten years) using the straight line method. Leasehold improvements are amortized over the shorter of their estimated useful lives or the term of the lease by use of the straight line method. Maintenance and repair costs are expensed as incurred. When assets are retired or sold, the assets and accumulated depreciation are removed from the respective accounts and any gain or loss is recognized.

***Revenues***

The Company recognizes revenues in accordance with authoritative guidance established by U.S. generally accepted accounting principles ("GAAP"). The Company's revenues are primarily related to its collaboration agreements, which may provide for various types of payments, including upfront payments, funding of research and development, milestone payments, and licensing fees. The Company's collaboration agreements also include potential payments for product royalties; however, the Company has not received any product royalties to date.

The Company considers a variety of factors in determining the appropriate method of accounting under its collaboration agreements, including whether the various elements can be separated and accounted for individually as separate units of accounting. Where there are multiple deliverables identified within a collaboration agreement that are combined into a single unit of accounting, revenues are deferred and recognized over the expected period of performance. The specific methodology for the recognition of the revenue is determined on a case-by-case basis according to the facts and circumstances of the applicable agreement.

Upfront, non-refundable payments that do not have stand-alone value are recorded as deferred revenue once received and recognized as revenues over the expected period of performance. Revenues from non-refundable license fees are recognized upon receipt of the payment if the license has stand-alone value, the Company does not have ongoing involvement or obligations, and the Company can determine the best estimate of the selling price for any undelivered items. When non-refundable license fees do not meet all of these criteria, the license revenues are recognized over the expected period of performance. Non-refundable payments for research funding are generally recognized as revenues over the period as the related research activities are performed. Payments for reimbursement of external development costs are generally recognized as revenues using a contingency-adjusted performance model over the expected period of performance. Payments received from grants are recognized as revenues as the related research and development is performed and when collectability has been reasonably assured.

The Company evaluates milestone payments on an individual basis and recognizes revenues from non-refundable milestone payments when the earnings process is complete and collectability is reasonably assured. Non-refundable milestone payments related to arrangements under which the Company has continuing performance obligations are recognized as revenues upon achievement of the associated milestone, provided that (i) the milestone event is substantive and its achievability was not reasonably assured at the inception of the agreement and (ii) the amount of the milestone payment is reasonable in relation to the effort expended or the risk associated with the milestone event. Where separate milestone payments do not meet these criteria, the Company recognizes revenue using a contingency-adjusted performance model over the expected period of performance.

**ACADIA PHARMACEUTICALS INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

**Research and Development Expenses**

Research and development expenses are charged to operations as incurred. Research and development expenses include, among other things, costs associated with services provided by contract organizations for preclinical development, manufacturing of clinical materials and clinical trials. The Company accrues for costs incurred as the services are being provided by monitoring the status of the trial or services provided and the invoices received from its external service providers. In the case of clinical trials, a portion of the estimated cost normally relates to the projected cost to treat a patient in the trials, and this cost is recognized based on the number of patients enrolled in the trial. Other indirect costs are generally recognized on a straight-line basis over the estimated period of the study. As actual costs become known, the Company adjusts its accruals. Certain research and development programs are funded under agreements with collaboration partners, and the Company's costs related to these activities are included in research and development expenses.

**Concentrations of Risk**

Financial instruments, which potentially subject the Company to concentrations of credit risk, principally consist of cash, cash equivalents, and investment securities. The Company currently invests its excess cash primarily in a money market fund, U.S. Treasury notes, and high quality, marketable debt instruments of corporations, financial institutions and government sponsored enterprises. The Company has adopted an investment policy that includes guidelines relative to credit quality, diversification and maturities to preserve principal and liquidity. The Company does not have any direct investments in auction-rate securities or securities that are collateralized by assets that include mortgages or subprime debt.

During the years ended December 31, 2012, 2011 and 2010, revenues from the Company's agreements with certain collaborative partners exceeded 10 percent of its total revenues. During the year ended December 31, 2012, revenues from Allergan, Inc. and Meiji Seika Pharma Co., Ltd. ("Meiji Seika Pharma") comprised 23 percent and 66 percent of total revenues, respectively. During the year ended December 31, 2011, revenues from Allergan, Meiji Seika Pharma and The Michael J. Fox Foundation comprised 52 percent, 25 percent and 13 percent of total revenues, respectively. During the year ended December 31, 2010, revenues from Biovail Laboratories International SRL ("Biovail"), a subsidiary of Biovail Corporation, comprised 94 percent of total revenues.

**Stock-Based Compensation**

The fair value of each employee stock option and each employee stock purchase right granted is estimated on the grant date under the fair value method using the Black-Scholes model. The estimated fair values of the stock option or purchase rights, including the effect of estimated forfeitures, are then expensed over the vesting period. The following assumptions were used to estimate the fair value of employee stock options:

	Years Ended December 31,		
	2012	2011	2010
Expected volatility	98-99%	98%	101%
Risk-free interest rate	1%	1-2%	1-3%
Expected forfeiture rate	9%	10%	11%
Expected dividend yield	0%	0%	0%
Expected life of options in years	5.8-6.0	5.8	5.7

*Expected Volatility.* The Company considers its historical volatility and implied volatility when determining the volatility factor. Prior to 2011, the Company also utilized the historical volatility of peer companies due to a lack of trading history. Peer companies were selected based upon similar characteristics such as industry, stage of development, size and financial leverage.



**ACADIA PHARMACEUTICALS INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

*Risk-Free Interest Rate.* The risk-free interest rate is based on the implied yield currently available on U.S. Treasury zero-coupon issues with a remaining term approximating the expected term of the option.

*Expected Forfeiture Rate.* The Company considers its pre-vesting forfeiture history to determine its expected forfeiture rate.

*Expected Dividend Yield.* The Company has never paid any dividends and currently has no plans to do so.

*Expected Life of Options.* The Company considers, among other factors, its historical exercise experience to date as well as the mean time remaining to full vesting of all outstanding options and the mean time remaining to the end of the contractual term of all outstanding options.

The following assumptions were used to estimate the fair value for the offerings under the employee stock purchase plan that commenced during the indicated year:

	Years Ended December 31,		
	2012	2011	2010
Expected volatility	69-137%	64-111%	58-152%
Risk-free interest rate	0.1-0.3%	0.1-0.4%	0-1%
Expected dividend yield	0%	0%	0%
Expected life of offering in years	0.5-2.0	0.5-2.0	0.5-2.0

***Income Taxes***

Current income tax expense or benefit represents the amount of income taxes expected to be payable or refundable for the current year. A deferred income tax asset or liability is computed for the expected future impact of differences between the financial reporting and income tax bases of assets and liabilities and for the expected future tax benefit to be derived from tax credits and loss carryforwards. Deferred income tax expense or benefit represents the net change during the year in the deferred income tax asset or liability. Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will not be realized.

***Use of Estimates***

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates.

***Long-Lived Assets***

The Company assesses potential impairments to its long-lived assets when there is evidence that events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. An impairment loss is recognized when the estimated undiscounted cash flows expected to result from the use of the asset and its eventual disposition is less than its carrying amount. The amount of the impairment loss, if any, will generally be measured as the difference between the net book value of the assets and their estimated fair values. No such impairment losses have been recorded by the Company.

**ACADIA PHARMACEUTICALS INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

**Comprehensive Income (Loss)**

All components of comprehensive income (loss), including net income (loss), are reported in the financial statements in the period in which they are recognized. Comprehensive income (loss) is defined as the change in equity (net assets) of a business enterprise during a period from transactions and other events and circumstances from non-owner sources. In accordance with accounting guidance, the Company presents the impact of any fluctuations in its foreign currency translation adjustments and any unrealized gains or losses on its investment securities in a separate statement of comprehensive income (loss) for each period.

**Net Income (Loss) Per Common Share**

Basic earnings (loss) per common share is computed by dividing net income (loss) by the weighted average number of common shares outstanding for the period. For the year ended December 31, 2012, the calculation of the weighted average number of common shares outstanding includes 5.3 million shares of redeemable common stock issued during 2012. Diluted earnings (loss) per common share is computed by dividing net income (loss) by the weighted average number of common shares outstanding during the period, increased to include potential dilutive common shares that were outstanding during the period. The effect of outstanding stock options and warrants is reflected, when dilutive, in diluted earnings per common share by application of the treasury stock method. The Company has excluded all outstanding stock options and warrants from the calculation of diluted net loss per common share for the years ended December 31, 2012 and 2011 because all such securities were antidilutive. For the year ended December 31, 2010, outstanding stock options to purchase an aggregate of 127,000 common shares were included in the weighted average common shares outstanding on a diluted basis and, therefore, are not included in the table below. Shares used in calculating basic and diluted net loss per common share exclude these potential common shares:

	Years Ended December 31,		
	2012	2011	2010
	(in thousands)		
Antidilutive options to purchase common stock	6,868	5,414	4,066
Antidilutive warrants to purchase common stock	4,388	4,559	848
	<u>11,256</u>	<u>9,973</u>	<u>4,914</u>

**Segment Reporting**

Management has determined that the Company operates in one business segment. All revenues for the years ended December 31, 2012, 2011 and 2010 were generated in the United States.

**Recently Issued Accounting Standards**

In February 2013, the Financial Accounting Standards Board issued authoritative guidance related to reclassifications out of accumulated other comprehensive income (loss). This guidance requires that companies present information about significant items reclassified out of accumulated other comprehensive income (loss) by component either on the face of the financial statements where net income is presented or as a separate disclosure in the footnotes to the financial statements. This recently issued standard is effective prospectively for fiscal years, and interim periods within those years, beginning after December 15, 2012. The Company does not believe this recently issued accounting standard will have a material impact on the Company's consolidated financial statements.

**ACADIA PHARMACEUTICALS INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

**3. Investment Securities**

Investment securities, including investment securities available-for-sale and investment securities classified as cash equivalents, consisted of the following:

	December 31, 2012			Estimated Fair Value
	Amortized Cost	Unrealized Gains	Unrealized (Losses)	
	(in thousands)			
U.S. Treasury notes	\$ 2,029	\$ 1	\$ —	\$ 2,030
Government sponsored enterprise securities	54,353	4	(5)	54,352
	<u>\$56,382</u>	<u>\$ 5</u>	<u>\$ (5)</u>	<u>\$56,382</u>

	December 31, 2011			Estimated Fair Value
	Amortized Cost	Unrealized Gains	Unrealized (Losses)	
	(in thousands)			
U.S. Treasury notes	\$ 1,516	\$ —	\$ —	\$ 1,516
Government sponsored enterprise securities	9,827	2	(1)	9,828
Corporate debt securities	12,812	3	—	12,815
	<u>\$24,155</u>	<u>\$ 5</u>	<u>\$ (1)</u>	<u>\$24,159</u>

The Company has classified all of its investments securities available-for-sale, including those with maturities beyond one year, as current assets on the consolidated balance sheets based on the highly liquid nature of the investment securities and because these investment securities are considered available for use in current operations. As of December 31, 2012, the Company held \$14.2 million of available-for-sale investment securities with contractual maturity dates more than one year and less than two years.

**4. Fair Value Measurements**

As of December 31, 2012, the Company held \$107.6 million of cash equivalents and available-for-sale investment securities consisting of a money market fund, U.S. Treasury notes and high quality, marketable debt instruments of government sponsored enterprises. The Company has adopted an investment policy and established guidelines relating to credit quality, diversification and maturities of its investments to preserve principal and maintain liquidity. All investment securities have a credit rating of at least AA or A1+/p1 as determined by Moody's Investors Service or Standard & Poor's.

The Company's cash equivalents and available-for-sale investment securities are classified within the fair value hierarchy as defined by authoritative guidance. The Company's investment securities classified as Level 1 are valued using quoted market prices and the Company's investment securities classified as Level 2 are valued using other observable inputs such as recent trades for the securities or similar securities, interest rates on similar securities, or yield curves or benchmark interest rates observable at commonly quoted intervals. The Company does not hold any securities classified as Level 3, which are securities valued using unobservable inputs. The Company has not transferred any investment securities between the classifications. No other-than-temporary impairments were identified for the investment securities held by the Company as of December 31, 2011 or 2012.

**ACADIA PHARMACEUTICALS INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

The fair value measurements of the Company's cash equivalents and available-for-sale investment securities are identified in the following tables (in thousands):

	Fair Value Measurements at Reporting Date Using			
	December 31, 2012	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
	(in thousands)			
Money market fund	\$ 51,216	\$ 51,216	\$ —	\$ —
U.S. Treasury notes	2,030	2,030	—	—
Government sponsored enterprise securities	54,352	—	54,352	—
	<u>\$ 107,598</u>	<u>\$ 53,246</u>	<u>\$ 54,352</u>	<u>\$ —</u>

	Fair Value Measurements at Reporting Date Using			
	December 31, 2011	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
	(in thousands)			
Money market fund	\$ 6,570	\$ 6,570	\$ —	\$ —
U.S. Treasury notes	1,516	1,516	—	—
Government sponsored enterprise securities	9,828	—	9,828	—
Corporate debt securities	12,815	—	12,815	—
	<u>\$ 30,729</u>	<u>\$ 8,086</u>	<u>\$ 22,643</u>	<u>\$ —</u>

**5. Balance Sheet Components**

Property and equipment, net, consisted of the following:

	Estimated Useful Lives (Years)	December 31,	
		2012	2011
		(in thousands)	
Machinery and equipment	5–7	\$ 2,578	\$ 4,089
Computers and software	3	981	982
Furniture and fixtures	3–10	159	159
Leasehold improvements	3–10	1,057	1,057
		4,775	6,287
Accumulated depreciation and amortization		(4,733)	(6,136)
		<u>\$ 42</u>	<u>\$ 151</u>

Depreciation and amortization of property and equipment was \$109,000, \$285,000, and \$607,000 for the years ended December 31, 2012, 2011, and 2010, respectively. During 2012, the Company sold \$1.5 million of fully depreciated machinery and equipment for a gain of \$252,000.

**ACADIA PHARMACEUTICALS INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

Accrued expenses consisted of the following:

	December 31,	
	2012	2011
	(in thousands)	
Accrued clinical and research services	\$3,216	\$2,492
Accrued compensation and benefits	413	679
Accrued professional fees	364	201
Other	146	132
	<u>\$4,139</u>	<u>\$3,504</u>

#### 6. Collaborative Research and Licensing Agreements

The Company is currently a party to three separate collaboration agreements with Allergan, Inc. Pursuant to the March 2003 collaboration agreement, the Company had received an aggregate of \$19.5 million in payments as of December 31, 2012, consisting of an upfront payment, research funding and related fees. The Company also is eligible to receive up to an aggregate of approximately \$13.5 million in license fees and development and regulatory milestone payments per product under this agreement. The 2003 collaboration originally provided for a three-year research term, which has been extended by the parties through March 2013. The Company's two other collaboration agreements with Allergan involve the development of product candidates in the areas of glaucoma and chronic pain. Under the glaucoma collaboration, the Company had received an aggregate of \$9.6 million in payments as of December 31, 2012, and is eligible to receive up to an aggregate of \$15 million in additional payments upon the achievement of development and regulatory milestones. Under the chronic pain collaboration, the Company had received an aggregate of \$10.5 million in payments as of December 31, 2012, and is eligible to receive up to an aggregate of \$10 million in additional payments upon the achievement of development and regulatory milestones. The Company also is eligible to receive royalties on future product sales worldwide, if any, under each of the three collaboration agreements with Allergan. The Company recognized approximately \$1.1 million in revenue related to the Allergan collaboration agreements during each of the years ended December 31, 2012, 2011, and 2010.

In March 2009, the Company entered into a collaboration agreement with Meiji Seika Pharma. In July 2012, the Company and Meiji Seika Pharma jointly decided to discontinue the development program that was being pursued under the collaboration, and the collaboration agreement was terminated pursuant to its terms. Under the collaboration agreement, the Company had received \$3 million in non-refundable license fees as well as payments for the reimbursement of development costs that it had incurred during the collaboration. Payments received from Meiji Seika Pharma were deferred and recognized as revenues using a contingency-adjusted performance model over the estimated period of the Company's performance. Upon the termination of this collaboration agreement and the end of the Company's related performance obligations, the Company recorded as revenue all of the remaining deferred revenue from this collaboration during the third quarter of 2012. The Company recognized revenues relating to this collaboration of \$3.2 million, \$505,000, and \$472,000 during the years ended December 31, 2012, 2011, and 2010, respectively. At December 31, 2011, \$3.0 million of revenue was deferred under this agreement, of which \$414,000 was included in current liabilities and \$2.6 million was included in long-term liabilities.

In May 2009, the Company entered into a collaboration agreement with Biovail, pursuant to which the Company received a non-refundable \$30 million upfront payment. Under this collaboration, the Company also was eligible to receive potential development, regulatory and sales milestones as well as royalties on future net sales of pimavanserin. In October 2010, the Company and Biovail entered into an agreement pursuant to which

ACADIA PHARMACEUTICALS INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

the Company reacquired all rights to pimavanserin and the parties concluded their collaboration. As a result, the Company recorded all remaining revenues related to its collaboration with Biovail, which totaled \$34.7 million during the fourth quarter of 2010. The Company recognized aggregate revenues relating to the Biovail collaboration of \$39.5 million and \$4.6 million during the years ended December 31, 2010 and 2009, respectively. The Company has no future obligations to Biovail.

Effective January 1, 2011, the Company prospectively adopted authoritative guidance for any new, or materially modified, multiple deliverable arrangement after the date of adoption. The Company has not entered into any new, or materially modified any, multiple deliverable arrangements since January 1, 2011. Accordingly, the collaborative agreements discussed above in this footnote that contain multiple deliverables continue to be accounted for under previously issued revenue recognition guidance for multiple deliverable arrangements. Under this prior guidance, the Company recognizes revenue for non-refundable payments upon receipt of the payment if the deliverable has stand-alone value, the Company does not have ongoing involvement or obligations, and the fair value of any undelivered items can be determined. When non-refundable payments for deliverables do not meet all of these criteria, the payment is deferred and revenues are recognized over the expected period of performance. For a discussion of the Company's revenue recognition policy that would apply to any future multiple deliverable arrangement, see Note 2—Summary of Significant Accounting Policies—Revenues.

**7. Stockholders' Equity and Redeemable Common Stock**

*Private Equity Financing*

In December 2012, the Company raised net proceeds of \$80.5 million through the sale of 19,000,000 shares of its common stock at a price of \$4.43 per share and warrants to purchase 500,000 shares of its common stock at a price of \$4.42 per warrant in a private equity financing. The warrants have an exercise price of \$0.01 per share and will expire on December 17, 2019. In accordance with authoritative accounting guidance, the warrants' value of \$2.2 million was determined on the date of grant using the Black-Scholes model with the following assumptions: risk free interest rate of 1.1 percent, volatility of 105.8 percent, a 7.0 year term and no dividend yield. These warrants were recorded as a component of stockholders' equity within additional paid-in capital. Per their terms, the outstanding warrants to purchase 500,000 shares of common stock are not exercisable prior to June 17, 2013 and may not be exercised thereafter if the holder's ownership of the Company's common stock would exceed 19.99 percent following such exercise. Pursuant to the terms of the private financing, the Company has an effective resale registration statement on file with the SEC covering the shares of common stock sold and the shares of common stock issuable upon the exercise of the warrants.

In January 2011, the Company raised net proceeds of \$13.9 million through the sale of 12,565,446 units at a price of \$1.19375 per unit in a private equity financing. Each unit consisted of one share of the Company's common stock and a warrant to purchase 0.35 shares of common stock. The warrants have an exercise price of \$1.38 per share and will expire on January 11, 2018. In accordance with authoritative accounting guidance, the warrants' value of \$3.3 million was determined on the date of grant using the Black-Scholes model with the following assumptions: risk free interest rate of 2.8 percent, volatility of 99.0 percent, a 7.0 year term and no dividend yield. These warrants were recorded as a component of stockholders' equity with an equal offsetting amount to stockholders' equity because the value of the warrants was considered a financing cost. During the year ended December 31, 2012, warrants to purchase 1,172,774 shares of common stock were exercised on a net issuance basis, resulting in the issuance of 874,719 shares of common stock in November 2012. At December 31, 2012, warrants to purchase 3,225,130 shares of common stock were outstanding. Pursuant to the terms of the private financing, the Company has an effective resale registration statement on file with the SEC covering shares of common stock sold and shares of common stock issuable upon the exercise of the warrants.

**ACADIA PHARMACEUTICALS INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

***At-the-Market Agreement***

In March 2012, the Company entered into an At-The-Market Issuance Sales Agreement (“ATM Agreement”) with MLV & Co. LLC, pursuant to which the Company could elect to issue and sell registered shares of its common stock having an aggregate offering price of up to \$20 million from time to time over a three-year period. MLV, as sales agent, is obligated to use commercially reasonable efforts consistent with its normal trading and sales practices and applicable laws, rules and regulations to sell shares of the Company’s common stock based upon the Company’s instructions, including any price, time or size limits or other parameters or conditions the Company may impose. The Company pays MLV a commission equal to three percent of the gross proceeds from sales of common stock pursuant to the ATM Agreement. During the year ended December 31, 2012, the Company raised gross proceeds of \$17.7 million from the sale of 5,347,137 shares of common stock under the ATM Agreement, resulting in net proceeds of \$17.1 million after issuance costs.

***Redeemable Common Stock***

In November 2012, the Company determined that it had failed to timely file a Current Report on Form 8-K to report the election of a new director in January 2012. As a result, the Company became ineligible to use its effective shelf registration statement on Form S-3 upon the filing of the Company’s 2011 Annual Report on Form 10-K in March 2012. Therefore, sales of the Company’s common stock made pursuant to the ATM Agreement in 2012 may be subject to potential rescission rights for an amount equal to the purchase price paid for the shares, plus statutory interest, upon return of the shares to the Company. No shareholder has claimed or attempted to exercise any rescission rights to date and any such rights expire in 2013. At December 31, 2012, the Company classified 5.3 million shares (\$17.7 million) of its common stock, which may be subject to rescission rights, outside stockholders’ equity because the potential redemption features are not within the control of the Company. These shares are treated as outstanding for financial reporting purposes. In addition, if it were determined that the Company sold unregistered securities, the Company could be subject to enforcement actions or penalties and fines by regulatory authorities.

***Other Financing Transactions***

During 2010 and 2009, the Company raised an aggregate of \$1.9 million through the issuance of shares of its common stock pursuant to a Committed Equity Financing Facility (“CEFF”). Pursuant to its terms, the CEFF expired in August 2011. In connection with the CEFF, the Company issued a warrant to purchase up to 350,000 shares of common stock at an exercise price of \$3.915 per share. The warrant’s value of \$576,000 was determined on the date of grant using the Black-Scholes model with the following assumptions: risk free interest rate of 3.23 percent, volatility of 74.33 percent, a 5.5 year term and no dividend yield. This warrant was recorded as a component of stockholders’ equity with an equal offsetting amount to stockholders’ equity because the value of the warrant was considered a financing cost. During the year ended December 31, 2012, warrants to purchase 220,000 shares of common stock were exercised on a net issuance basis, resulting in the issuance of 61,381 shares of common stock in November 2012. At December 31, 2012, no warrants remained outstanding.

***Stock Option Plans***

The Company’s 2010 Equity Incentive Plan (the “2010 Plan”) permits the grant of options to directors, officers, other employees, and consultants. In addition, the 2010 Plan permits the grant of stock bonuses, rights to purchase restricted stock, and other stock awards. The exercise price of options granted under the 2010 Plan cannot be less than 100 percent of the fair market value of the common stock on the date of grant and the maximum term of any option is ten years. Options granted under the 2010 Plan generally vest over a four-year period. All shares that remained eligible for grant under the Company’s 2004 Equity Incentive Plan (the “2004 Plan”) at the time of approval of the 2010 Plan were transferred to the 2010 Plan. The 2010 Plan share reserve

**ACADIA PHARMACEUTICALS INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

also has been, and may be, increased by the number of shares that otherwise would have reverted to the 2004 Plan reserve after June 2010. At December 31, 2012, there were 8,003,643 shares of common stock authorized for issuance and 1,055,187 shares of common stock available for new grants under the 2010 Plan.

The 2004 Plan provided for the grant of options to directors, officers, other employees, and consultants. The exercise price of options granted under the 2004 Plan was at 100 percent of the fair market value of the common stock on the date of grant and the maximum term of any option was ten years. Options granted under the 2004 Plan generally vested over a four-year period.

The Company's 1997 stock option plan (the "1997 Plan") provided for the grant of options to directors, officers, other employees, and consultants prior to the Company's initial public offering. The exercise price of each option grant was set at the fair market value for the Company's common stock as determined by the Company's Board of Directors and each option's maximum term was ten years. Options granted under the 1997 Plan generally vested over a four-year period.

Stock option transactions under the 2010 Plan, 2004 Plan and 1997 Plan during the years ended December 31, 2012, 2011, and 2010 are presented below:

	Number of Shares	Weighted- Average Exercise Prices	Weighted Average Remaining Contractual Term
<b>Outstanding at January 1, 2010</b>	3,255,446	\$ 6.09	
Granted	1,760,382	\$ 1.44	
Exercised	(10,820)	\$ 1.01	
Canceled/forfeited	(689,910)	\$ 6.70	
<b>Outstanding at December 31, 2010</b>	4,315,098	\$ 4.11	
Granted	1,614,855	\$ 1.61	
Exercised	(10,434)	\$ 1.22	
Canceled/forfeited	(129,742)	\$ 5.38	
<b>Outstanding at December 31, 2011</b>	5,789,777	\$ 3.39	
Granted	1,651,336	\$ 1.93	
Exercised	(293,595)	\$ 1.54	
Canceled/forfeited	(199,062)	\$ 4.78	
<b>Outstanding at December 31, 2012</b>	<u>6,948,456</u>	<u>\$ 3.08</u>	6.9
Vested and expected to vest at December 31, 2012	<u>6,709,985</u>	<u>\$ 3.12</u>	6.8
Exercisable at December 31, 2012	<u>4,384,643</u>	<u>\$ 3.83</u>	5.8

At December 31, 2012, 2011, and 2010, there were 4,384,643, 3,472,428, and 2,446,730 options exercisable, respectively.

The aggregate intrinsic value of options outstanding and exercisable as of December 31, 2012 is calculated as the difference between the exercise price of the underlying options and the closing market price of the Company's common stock on that date, which was \$4.65. The aggregate intrinsic value of options outstanding and exercisable as of December 31, 2012 was \$9.5 million. The aggregate intrinsic value of options exercised during the years ended December 31, 2012, 2011, and 2010 was approximately \$650,000, \$6,000, and \$4,000, respectively, determined as of the date of exercise. The Company received \$453,000 in cash from options exercised during the year ended December 31, 2012.



**ACADIA PHARMACEUTICALS INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

The weighted average fair value of options granted during the years ended December 31, 2012, 2011, and 2010 was approximately \$1.51, \$1.25, and \$1.13, respectively. As of December 31, 2012, total unrecognized compensation cost related to stock options and purchase rights was approximately \$3.0 million, and the weighted average period over which this cost is expected to be recognized is 2.3 years.

The following table summarizes information about stock options outstanding at December 31, 2012:

Options Outstanding				Options Exercisable	
Range of Exercise Prices	Number of Shares	Weighted-Average Remaining Contractual Life	Weighted-Average Exercise Price	Number of Shares	Weighted-Average Exercise Price
\$0.96–\$ 1.32	895,756	5.6	\$1.21	772,004	\$1.20
\$1.33–\$ 1.60	1,684,491	7.8	\$1.47	992,728	\$1.48
\$1.61–\$ 2.00	1,715,544	7.6	\$1.72	1,080,746	\$1.77
\$2.01–\$ 4.65	1,391,205	8.5	\$2.22	277,705	\$2.39
\$4.66–\$15.43	1,261,460	3.5	\$9.35	1,261,460	\$9.35
	<u>6,948,456</u>		\$3.08	<u>4,384,643</u>	\$3.83

Stock-based awards issued to non-employees other than directors are accounted for using a fair value method and are re-measured to fair value at each period end until the earlier of the date that performance by the non-employee is complete or a performance commitment has been obtained. The fair value of each award is estimated using the Black-Scholes model. The stock compensation expense related to the grant of stock options to non-employees was not significant for each of the years ended December 31, 2012, 2011, and 2010.

***Employee Stock Purchase Plan***

The Company's 2004 Employee Stock Purchase Plan (the "Purchase Plan") became effective upon the closing of the Company's initial public offering in June 2004. The Purchase Plan includes an "evergreen" provision providing that an additional number of shares may be added to the shares authorized for issuance on the date of each annual meeting of stockholders for a period of ten years, which began with the meeting in 2005. A total of 1,225,000 shares of common stock have been reserved for issuance under the Purchase Plan. Eligible employees who elect to participate in an offering under the Purchase Plan may have up to 15 percent of their earnings withheld, subject to certain limitations, to purchase shares of common stock pursuant to the Purchase Plan. The price of common stock purchased under the Purchase Plan is equal to 85 percent of the lower of the fair market value of the common stock at the commencement date of each offering period or the relevant purchase date. During the years ended December 31, 2012, 2011, and 2010, 205,862, 189,879, and 81,032 shares of common stock were issued at average prices of \$0.60, \$0.57, and \$0.81 under the Purchase Plan, respectively. The weighted average fair value of purchase rights granted during the years ended December 31, 2012, 2011, and 2010 was \$2.43, \$0.67, and \$0.42, respectively. During the years ended December 31, 2012, 2011, and 2010, the Company recorded cash received from the exercise of purchase rights of \$123,000, \$109,000, and \$65,000, respectively.

***Common Stock Reserved For Future Issuance***

At December 31, 2012, 6,948,456 and 3,725,130 shares of common stock were reserved for issuance upon the exercise of stock options and warrants, respectively.

**ACADIA PHARMACEUTICALS INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

**8. 401(k) Plan**

Effective January 1997, the Company established a deferred compensation plan (the “401(k) Plan”) pursuant to Section 401(k) of the Internal Revenue Code of 1986, as amended (the “Code”), whereby substantially all employees are eligible to contribute up to 60 percent of their pretax earnings, not to exceed amounts allowed under the Code. The Company makes discretionary contributions to the 401(k) Plan equal to 100 percent of each employee’s pretax contributions up to 5 percent of his or her eligible compensation, subject to limitations under the Code. The Company’s total contributions to the 401(k) Plan were \$180,000, \$156,000, and \$133,000 for the years ended December 31, 2012, 2011 and 2010, respectively.

**9. Income Taxes**

At December 31, 2012, the Company had both federal and state net operating loss (“NOL”) carryforwards of approximately \$328.5 million and \$279.2 million, respectively. Federal and state NOL carryforwards of \$3.6 million and \$593,000 will expire in 2018 and 2013, respectively, unless utilized. The remaining federal and state NOL carryforwards will begin to expire in 2019 and 2014, respectively. The Company has \$8.2 million of federal research and development (“R&D”) credit carryforwards of which \$119,000 will expire in 2018, unless utilized, and the remaining federal R&D credit carryforwards will begin to expire in 2019. The Company has \$4.4 million of state R&D credit carryforwards that have no expiration date. The Company also has foreign NOL carryforwards of approximately \$3.9 million that have no expiration date.

Utilization of the NOL and R&D credit carryforwards may be subject to a substantial annual limitation due to ownership change limitations that may have occurred or that could occur in the future, as required by Section 382 of the Internal Revenue Code of 1986, as amended (the “Code”), as well as similar state and foreign provisions. These ownership changes may limit the amount of NOL and R&D credit carryforwards that can be utilized annually to offset future taxable income and tax, respectively. In general, an “ownership change” as defined by Section 382 of the Code results from a transaction or series of transactions over a three-year period resulting in an ownership change of more than 50 percentage points of the outstanding stock of a company by certain stockholders or public groups. Since the Company’s formation, the Company has raised capital through the issuance of capital stock on several occasions (both before and after its initial public offering) which, combined with the purchasing stockholders’ subsequent disposition of those shares, may have resulted in such an ownership change, or could result in an ownership change in the future upon subsequent disposition.

The Company has not completed a study to assess whether an ownership change has occurred or whether there have been multiple ownership changes since the Company’s formation due to the complexity and cost associated with such a study, and the fact that there may be additional such ownership changes in the future. If the Company has experienced an ownership change at any time since its formation, utilization of the NOL or R&D credit carryforwards would be subject to an annual limitation under Section 382 of the Code, which is determined by first multiplying the value of the Company’s stock at the time of the ownership change by the applicable long-term, tax-exempt rate, and then could be subject to additional adjustments, as required. Any limitation may result in expiration of a portion of the NOL or R&D credit carryforwards before utilization. Further, until a study is completed and any limitation known, no amounts are being considered as an uncertain tax position or disclosed as an unrecognized tax benefit under authoritative accounting guidance. Any carryforwards that will expire prior to utilization as a result of such limitations will be removed from deferred tax assets with a corresponding reduction of the valuation allowance with no net effect on income tax expense or the effective tax rate.

Approximately \$2.7 million of the NOL carryforwards relate to excess tax deductions for stock compensation, the income tax benefit of which will be recorded as additional paid-in capital if and when realized.

**ACADIA PHARMACEUTICALS INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

The components of the deferred tax assets are as follows:

	2012	2011
	(in thousands)	
NOL carryforwards	\$ 127,894	\$ 118,285
R&D credit carryforwards	11,056	10,119
Deferred revenue	—	1,195
Capitalized R&D	4,075	5,128
Stock-based compensation	2,906	2,607
Other	775	1,003
	146,706	138,337
Valuation allowance	(146,706)	(138,337)
	<u>\$ —</u>	<u>\$ —</u>

Realization of deferred tax assets is dependent upon future earnings, if any, the timing and amount of which are uncertain. Accordingly, the deferred tax assets have been fully offset by a valuation allowance. The valuation allowance increased by \$8.4 million in 2012 primarily due to an increase in deferred tax assets generated from net operating losses, partially offset by the expiration of NOL carryforwards in 2012, fully offset by the valuation allowance.

A reconciliation of income taxes to the amount computed by applying the statutory federal income tax rate to the net income (loss) is summarized as follows:

	2012	2011	2010
	(in thousands)		
Amounts computed at statutory federal rate	\$(7,088)	\$(7,734)	\$ 5,144
Permanent differences, including stock-based compensation	209	306	274
R&D credits	(937)	(514)	(350)
Change in valuation allowance	8,375	8,820	(6,080)
State taxes	(1,171)	(1,288)	972
Foreign taxes	(4)	59	108
Other	616	368	(56)
	<u>\$ 0</u>	<u>\$ 17</u>	<u>\$ 12</u>

The net income tax expense for the years ended December 31, 2012, 2011 and 2010 are recorded in the Company's statement of operations in general and administrative expenses.

The tax years 1998-2012 remain open to examination by the major taxing jurisdictions to which the Company is subject. During 2012, the Internal Revenue Service concluded an exam for tax years 2008 and 2009 that resulted in favorable adjustments to research and development credits.

The American Taxpayer Relief Act of 2012, which reinstated the United States federal research and development tax credit retroactively from January 1, 2012 through December 31, 2013, was enacted into law during the first quarter of 2013. However, the expected tax benefit resulting from such reinstatement for 2012 will not impact the financial statements due to the valuation allowance against net deferred tax assets.

**10. Commitments and Contingencies**

The Company leases facilities and certain equipment under noncancelable operating leases that expire at various dates through December 2013. Under the terms of the facilities leases, the Company is required to pay its proportionate share of property taxes, insurance and normal maintenance costs.

**ACADIA PHARMACEUTICALS INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

Future noncancelable minimum payment obligations under operating lease arrangements are as follows at December 31, 2012:

Year Ending	(in thousands)
2013	\$ 281
2014	—
2015	—
2016	—
Thereafter	—
	<u>\$ 281</u>

Rent expense was \$663,000, \$2.1 million, and \$2.0 million for the years ended December 31, 2012, 2011, and 2010, respectively. Facility operating leases contain escalation clauses. The Company recognizes rent expense on a straight line basis over the lease term. The difference between rent expense recorded and amounts paid under lease agreements is recorded as deferred rent and included in accrued expenses in the accompanying consolidated balance sheets.

In April 2011, the Company entered into a termination agreement related to the lease for its Swedish research facility and ceased operations at this site. The lease was entered into in June 2005 and had a 10-year term. Pursuant to this agreement, the Company made a one-time payment of \$690,000 and issued 782,339 shares of its common stock to the landlord in settlement of all lease-related obligations. General and administrative expenses for the year ended December 31, 2011 included a net charge of \$1.1 million, which amount consisted of \$1.7 million in lease termination charges, offset by a \$539,000 reduction in the Company's cumulative translation adjustment balance related to the liquidation of substantially all assets of its Swedish subsidiary.

Pursuant to its ATM Agreement, in 2012 the Company sold 5.3 million shares of common stock, which may be subject to rescission rights for an amount up to \$17.7 million, the aggregate purchase price paid for such shares, plus statutory interest. In addition, if it were determined that the Company sold unregistered securities, the Company could be subject to enforcement actions or penalties and fines by regulatory authorities. The Company is unable to predict the likelihood of any claims or actions being brought against it or the amount of any potential penalties or fines related to such sales of common stock. See Note 7—Stockholders' Equity and Redeemable Common Stock –Redeemable Common Stock above for further information.

The Company has entered into agreements with contract research organizations and other external service providers primarily for services in connection with the development of its product candidates. The Company was contractually obligated for up to approximately \$15.1 million of future services under these agreements as of December 31, 2012. The nature of the work being conducted under the Company's agreements with contract research organizations is such that, in most cases, the services may be stopped with short notice. In such event, the Company would not be liable for the full amount of the contract. The Company's actual contractual obligations may vary depending upon several factors, including the progress and results of the underlying studies.

In November 2006, the Company entered into an agreement with the Ipsen Group pursuant to which it licensed certain intellectual property rights that complement its patent portfolio. If certain conditions are met, the Company would be required to make future payments, including milestones, sublicensing fees and royalties. The amount of potential future milestones payments is \$10.5 million in the aggregate, which amount would be offset by any sublicensing fees the Company may pay under the agreement. Because these milestone payments would only be payable upon the achievement of specified regulatory events and it is uncertain when, or if, such events will occur, the Company cannot forecast with any degree of certainty when, or if, it will be required to make payments under the agreement.

**ACADIA PHARMACEUTICALS INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

**11. Selected Quarterly Financial Data (Unaudited)**

<u>2012</u>	<u>March 31,</u>	<u>June 30,</u>	<u>September 30,</u>	<u>December 31,</u>
	(in thousands, except per share data)			
Revenues	\$ 450	\$ 599	\$ 3,478	\$ 380
Net loss	\$ (6,218)	\$ (5,419)	\$ (2,402)	\$ (6,810)
Net loss per common share, basic and diluted	\$ (0.12)	\$ (0.10)	\$ (0.04)	\$ (0.11)

  

<u>2011</u>	<u>March 31,</u>	<u>June 30,</u>	<u>September 30,</u>	<u>December 31,</u>
	(in thousands, except per share data)			
Revenues	\$ 435	\$ 460	\$ 584	\$ 588
Net loss	\$ (5,833)	\$ (6,556)	\$ (5,076)	\$ (5,300)
Net loss per common share, basic and diluted	\$ (0.12)	\$ (0.12)	\$ (0.10)	\$ (0.10)

Revenues and net income are rounded to thousands each quarter. Therefore, the sum of the quarterly amounts may not equal the annual amounts reported. Net income per common share, basic and diluted, are computed independently for each quarter and the full year based upon respective average shares outstanding. Therefore, the sum of the quarterly net income per common share amounts may not equal the annual amounts reported.

**INDEX TO EXHIBITS**

<b><u>Exhibit Number</u></b>	<b><u>Description</u></b>
3.1	Amended and Restated Certificate of Incorporation, as Amended (incorporated by reference to Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q, filed August 10, 2011).
3.2	Amended and Restated Bylaws (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K, filed December 17, 2009).
4.1	Form of common stock certificate of the Registrant (incorporated by reference to Exhibit 4.1 to Registration Statement No. 333-52492).
4.2	Form of Warrant to Purchase Common Stock issued to purchasers in a private placement on January 12, 2011 (incorporated by reference to Exhibit 4.5 to Registration Statement No. 333-171722).
4.3	Form of Warrant to Purchase Common Stock issued to certain purchasers in a private placement on December 17, 2012 (incorporated by reference to Exhibit 4.4 to Registration Statement No. 333-185639).
10.1 <sup>a</sup>	Form of Indemnity Agreement for directors and officers (incorporated by reference to Exhibit 10.1 to Registration Statement No. 333-113137).
10.2 <sup>a</sup>	1997 Stock Option Plan and forms of agreement thereunder (incorporated by reference to Exhibit 10.2 to Registration Statement No. 333-113137).
10.3 <sup>a</sup>	2004 Equity Incentive Plan and forms of agreement thereunder (incorporated by reference to Exhibit 10.3 to Registration Statement No. 333-113137).
10.4 <sup>a</sup>	2010 Equity Incentive Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q, filed August 9, 2010).
10.5 <sup>a</sup>	Forms of agreement under the 2010 Equity Incentive Plan (incorporated by reference to Exhibit 10.6 to the Registrant's Annual Report on Form 10-K, filed March 10, 2011).
10.6 <sup>a</sup>	2004 Employee Stock Purchase Plan and initial offering thereunder (incorporated by reference to Exhibit 10.4 to Registration Statement No. 333-113137).
10.7 <sup>a</sup>	Volume Submitter Defined Contribution Plan ("401(k) Plan") (incorporated by reference to Exhibit 10.6 to the Registrant's Annual Report on Form 10-K, filed March 9, 2010).
10.8 <sup>a</sup>	Adoption Agreement for 401(k) Plan (incorporated by reference to Exhibit 10.7 to the Registrant's Annual Report on Form 10-K, filed March 9, 2010).
10.9 <sup>a</sup>	Employment Letter Agreement, dated December 21, 1998, between the Registrant and Uli Hacksell, Ph.D. (incorporated by reference to Exhibit 10.7 to Registration Statement No. 333-52492).
10.10 <sup>a</sup>	Employment Letter Agreement, dated March 4, 1998, between the Registrant and Thomas H. Aasen (incorporated by reference to Exhibit 10.9 to Registration Statement No. 333-52492).
10.11 <sup>a</sup>	Employment Offer Letter, dated May 26, 2006, between the Registrant and Roger Mills (incorporated by reference to Exhibit 99.1 to the Registrant's Current Report on Form 8-K, filed April 2, 2007).
10.12 <sup>a</sup>	Employment Agreement between the Registrant and Glenn F. Baity (incorporated by reference to Exhibit 10.13 to the Registrant's Annual Report on Form 10-K, filed March 10, 2011).
10.13 <sup>a</sup>	Description of Outside Director Compensation Program.
10.14 <sup>b</sup>	Collaborative Research, Development and License Agreement, dated September 24, 1997, by and among the Registrant, Allergan, Inc. and Vision Pharmaceuticals L.P. (now Allergan Sales, Inc.) (incorporated by reference to Exhibit 10.12 to Registration Statement No. 333-113137).

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<u>Exhibit Number</u>	<u>Description</u>
10.15 <sup>b</sup>	Amendment to Collaborative Research, Development and License Agreement, dated March 27, 2003, by and among the Registrant, Allergan Sales LLC (as successor in interest of Vision Pharmaceuticals L.P.) and Allergan, Inc. (incorporated by reference to Exhibit 10.13 to Registration Statement No. 333-113137).
10.16 <sup>b</sup>	Collaborative Research, Development and License Agreement, dated July 26, 1999, by and among the Registrant and Allergan, Inc., Allergan Pharmaceuticals (Ireland) Limited, Inc. and Allergan Sales, Inc. (incorporated by reference to Exhibit 10.14 to Registration Statement No. 333-113137).
10.17 <sup>b</sup>	Collaborative Research, Development and License Agreement, dated March 27, 2003, by and among the Registrant, Allergan, Inc. and Allergan Sales, Inc. (incorporated by reference to Exhibit 10.15 to Registration Statement No. 333-113137).
10.18 <sup>b</sup>	Second Amendment to Collaborative Research, Development and License Agreement, dated February 28, 2006, by and among the Registrant, Allergan Sales LLC (as successor in interest of Vision Pharmaceuticals L.P.) and Allergan, Inc. (incorporated by reference to Exhibit 10.25 to the Registrant's Annual Report on Form 10-K, filed March 15, 2006).
10.19 <sup>b</sup>	Third Amendment to Collaborative Research, Development and License Agreement, dated March 3, 2008, by and among the Registrant, Allergan Sales LLC (as successor in interest of Vision Pharmaceuticals L.P.) and Allergan, Inc. (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q, filed May 5, 2008).
10.20 <sup>b</sup>	Fourth Amendment to Collaborative Research, Development and License Agreement, dated April 22, 2009, by and among the Registrant, Allergan Sales LLC (as successor in interest of Vision Pharmaceuticals L.P.) and Allergan, Inc. (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q, filed August 5, 2009).
10.21 <sup>b</sup>	Fifth Amendment to Collaborative Research, Development and License Agreement, dated March 23, 2010, by and among the Registrant, Allergan Sales LLC (as successor in interest of Vision Pharmaceuticals L.P.) and Allergan, Inc. (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q, filed May 10, 2010).
10.22 <sup>b</sup>	Sixth Amendment to Collaborative Research, Development and License Agreement, dated March 28, 2011, by and among the Registrant, Allergan Sales LLC (as successor in interest of Vision Pharmaceuticals L.P.) and Allergan, Inc. (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q, filed May 9, 2011).
10.23 <sup>b</sup>	Seventh Amendment to Collaborative Research, Development and License Agreement, dated February 29, 2012, by and among the Registrant, Allergan Sales LLC (as successor in interest of Vision Pharmaceuticals L.P.) and Allergan, Inc. (incorporated by reference to Exhibit 10.23 to the Registrant's Annual Report on Form 10-K, filed March 6, 2012).
10.24	Securities Purchase Agreement, dated December 12, 2012, by and between the Registrant and the purchasers listed on Exhibit A thereto (incorporated by reference to Exhibit 99.1 to the Registrant's Current Report on Form 8-K, filed December 18, 2012).
10.25	Securities Purchase Agreement, dated January 9, 2011, by and between the Registrant and the purchasers listed on Exhibit A thereto (incorporated by reference to Exhibit 99.1 to the Registrant's Current Report on Form 8-K, filed January 12, 2011).
10.26	At-The-Market Issuance Sales Agreement, dated March 30, 2012, by and between the Registrant and MLV & Co. LLC (incorporated by reference to Exhibit 99.1 to Registrant's Current Report on Form 8-K, filed March 30, 2012).
10.27	Standard Industrial/Commercial Single-Tenant Lease-Net, dated August 15, 1997, between the Registrant and R.G. Harris Co. (incorporated by reference to Exhibit 10.18 to Registration Statement No. 333-52492).

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<u>Exhibit Number</u>	<u>Description</u>
10.28	Lease Amendment, dated November 1, 2005, between the Registrant and E.G. Sirrah, LLC (successor in interest to R.G. Harris Co.), to Standard Industrial/Commercial Single-Tenant Lease-Net, dated August 15, 1997, between the Registrant and R.G. Harris Co. (incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q, filed November 14, 2005).
10.29	Lease Amendment, dated November 30, 2007, between the Registrant and E.G. Sirrah, LLC, to Standard Industrial/Commercial Single-Tenant Lease-Net, dated August 15, 1997, between the Registrant and R.G. Harris Co. (incorporated by reference to Exhibit 10.21 to the Registrant's Annual Report on Form 10-K, filed March 5, 2008).
10.30	Lease Amendment, dated January 22, 2010, between the Registrant and RGH Holdings Limited Partnership (successor in interest to E.G. Sirrah, LLC), to Standard Industrial/Commercial Single-Tenant Lease-Net, dated August 15, 1997, between the Registrant and R.G. Harris Co. (incorporated by reference to Exhibit 10.25 to the Registrant's Annual Report on Form 10-K, filed March 9, 2010).
10.31	Lease Amendment, dated September 19, 2012, between the Registrant and RGH Holdings Limited Partnership, to Standard Industrial/Commercial Single-Tenant Lease-Net, dated August 15, 1997, between the Registrant and R.G. Harris Co. (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q, filed November 5, 2012).
10.32	Assignment of Brann Intellectual Property Rights, dated January 29, 1997, by Mark R. Brann in favor of the Registrant (incorporated by reference to Exhibit 10.17 to Registration Statement No. 333-52492).
10.33 <sup>a</sup>	Description of Executive Officer Annual Incentive Cash Compensation Program.
10.34 <sup>a</sup>	Change in Control Severance Benefit Plan
10.35 <sup>b</sup>	License Agreement, dated November 30, 2006, by and between the Registrant and Société de Conseils, de Recherches et d'Applications Scientifiques SAS, a French corporation member of the Ipsen Group (incorporated by reference to Exhibit 99.1 to the Registrant's Current Report on Form 8-K, filed December 4, 2006).
21.1	List of subsidiaries of the Registrant.
23.1	Consent of Independent Registered Public Accounting Firm.
24.1	Power of Attorney (see signature page hereto).
31.1	Certification of Uli Hacksell, Ph.D., Chief Executive Officer, pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Thomas H. Aasen, Chief Financial Officer, pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Uli Hacksell, Ph.D., Chief Executive Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Thomas H. Aasen, Chief Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101	The following financial statements from this Annual Report, formatted in XBRL (Extensible Business Reporting Language), are furnished herewith: (i) Consolidated Balance Sheets, (ii) Consolidated Statements of Operations, (iii) Consolidated Statements of Comprehensive Income (Loss), (iv) Consolidated Statements of Cash Flows, (v) Consolidated Statements of Stockholders' Equity, and (vi) Notes to Consolidated Financial Statements.

<sup>a</sup> Indicates management contract or compensatory plan or arrangement.

<sup>b</sup> We have received confidential treatment of certain portions of this agreement, which have been omitted and filed separately with the SEC pursuant to Rule 406 under the Securities Act of 1933, as amended, or Rule 24b-2 of the Securities Exchange Act of 1934, as amended.



## ACADIA Pharmaceuticals Inc.

## Description of Outside Director Compensation Program

The Board of Directors (the "Board") of ACADIA Pharmaceuticals Inc. ("ACADIA") has approved the following fees that are payable to the non-management directors who are members of the Board, effective June 1, 2013:

Annual Retainer	\$35,000
Additional Retainer for Board Chair	\$22,500
Additional Retainer for Audit Chair	\$18,000
Additional Retainer for Audit Member (non-Chair)	\$9,000
Additional Retainer for Compensation Chair	\$14,000
Additional Retainer for Compensation Member (non-Chair)	\$7,000
Additional Retainer for Nominating and Corporate Governance Chair	\$10,000
Additional Retainer for Nominating and Corporate Governance Member (non-Chair)	\$5,000
Options	15,000 upon joining Board
	12,500 annual grant thereafter
	1,500 additional annual grant for Board Chair

The Annual Retainer amounts are payable following the first meeting of the Board that follows the annual meeting of ACADIA's stockholders. Annual option grants to directors are made at the Board meeting following the annual meeting of stockholders in accordance with the provisions of stock option plans that have been approved by ACADIA's stockholders. The annual retainer amount and annual option grant may be pro rated for a director that joins the Board other than at the first meeting of the Board following the annual meeting of stockholders.

**ACADIA Pharmaceuticals Inc.**  
**Description of Executive Officer Annual Incentive Cash Compensation Program**

The Compensation Committee (the "Committee") of the Board of Directors (the "Board") of ACADIA Pharmaceuticals Inc. (the "Company") has recommended to the Board, and the Board has approved, incentive cash compensation for the Company's executive officers pursuant to an annual incentive cash compensation program. The program will provide for an annual incentive cash compensation target equal to a percentage of each executive's base salaries as follows: 50% for Uli Hacksell, President and Chief Executive Officer; 35% for each of Roger Mills, Executive Vice President, Development and Chief Medical Officer, and Thomas Aasen, Executive Vice President, Chief Financial Officer and Chief Business Officer; and 30% for Glenn Baity, Vice President & General Counsel.

Under the program, after the completion of each fiscal year the Committee recommends to the Board for approval for each executive a bonus that will be equal to an amount from 0 to 150% of the applicable target amount. In making its recommendations, the Committee assesses the level of achievement of specific criteria by the executive and the Company. These criteria include the achievement of research and development milestones, including the advancement of the Company's clinical programs and the Company's preclinical assets toward clinical development; and other criteria the disclosure of which would reveal confidential business information and plans of the Company.

## ACADIA PHARMACEUTICALS INC.

## CHANGE IN CONTROL SEVERANCE BENEFIT PLAN

**Section 1. INTRODUCTION.**

The ACADIA Pharmaceuticals Inc. Change in Control Severance Benefit Plan (the “*Plan*”) is hereby established effective March 11, 2013 (the “*Effective Date*”). The purpose of the Plan is to provide for the payment of severance benefits to selected eligible employees of ACADIA Pharmaceuticals Inc. (the “*Company*”) in the event that such employees become subject to involuntary or constructive employment terminations in connection with an acquisition of the Company. This Plan shall supersede any severance benefit plan, policy or practice previously maintained by the Company, except for an individually negotiated employment contract or agreement between the Company and an employee. This Plan document also is the Summary Plan Description for the Plan.

For purposes of the Plan, the following terms are defined as follows:

(a) “*Affiliate*” means any corporation (other than the Company) in an “unbroken chain of corporations” beginning with the Company, if each of the corporations other than the last corporation in the unbroken chain owns stock possessing 50% or more of the total combined voting power of all classes of stock in one of the other corporations in such chain

(b) “*Annual Base Salary*” means the annualized base pay amount (excluding incentive pay, premium pay, commissions, overtime, bonuses, and other forms of variable compensation) as in effect immediately prior to a Covered Termination and prior to any reduction that would give rise to an employee’s right to resign for Good Reason.

(c) “*Average Annual Bonus*” means:

(1) If the Eligible Employee has been employed by the Company for the two complete calendar years that immediately precede the calendar year in which the Covered Termination occurs (the “*Bonus Period*”), the average of the annual bonus amounts previously paid to the Eligible Employee or which have been earned by the Eligible Employee but remain unpaid in respect of performance during the Bonus Period,

(2) if the Eligible Employee has not been employed by the Company during the entire Bonus Period, but has been employed by the Company for a least one complete calendar year that precedes the year in which the Covered Termination occurs, the average of the annual bonus amounts previously paid to the Eligible Employee or which have been earned by the Eligible Employee but remain unpaid in respect of performance during such calendar year(s); or

(3) if the Eligible Employee has not been employed for at least one complete calendar year that precedes the calendar year in which the Covered Termination occurs, the higher of: (i) the Target Bonus in effect for the calendar year in which the Covered Termination occurs; or (ii) the annualized target bonus amount in effect for the Eligible Employee for the calendar year preceding the calendar year in which the Covered Termination occurs.

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(d) “**Board**” means the Board of Directors of the Company; provided, however, that if the Board has delegated authority to administer the Plan to the Compensation Committee of the Board, then “**Board**” shall also mean the Compensation Committee.

(e) “**Cause**” means, with respect to a particular employee, the occurrence of any of the following events: (i) such employee’s attempted commission of, or participation in, a fraud or act of dishonesty against the Company; (ii) such employee’s intentional, material violation of any contract or agreement between the employee and the Company or of any statutory duty owed to the Company; (iii) such employee’s unauthorized use or disclosure of the Company’s confidential information or trade secrets; (iv) such employee’s gross negligence or gross misconduct; (v) such employee’s material failure to competently perform his/her assigned duties for the Company; (vi) sustained poor performance of any material aspect of the employee’s duties or obligations; or (viii) employee’s conviction of, or the entry of a pleading of guilty or nolo contendere by such employee to, any crime involving moral turpitude or any felony; provided, in the case of clauses (v) and (vi), if such failure or poor performance has not been substantially cured to the satisfaction of the Board within 30 days after written notice of such failure or poor performance has been given by the Company to the employee. The determination whether a termination is for Cause shall be made by the Board in its sole and exclusive judgment and discretion.

(f) “**Change in Control**” means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events that also qualifies as a change in the ownership of the Company, a change in the effective control of the Company, or a change in the ownership of a substantial portion of the assets of the Company (as these events are defined in Treasury Regulations Section § 1.409A-3(i)(5), or as these definitions may later be modified by other regulatory pronouncements):

(1) any Exchange Act Person becomes the Owner, directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company’s then outstanding securities other than by virtue of a merger, consolidation or similar transaction. Notwithstanding the foregoing, a Change in Control shall not be deemed to occur (A) on account of the acquisition of securities of the Company by an investor, any affiliate thereof or any other Exchange Act Person that acquires the Company’s securities in a transaction or series of related transactions the primary purpose of which is to obtain financing for the Company through the issuance of equity securities or (B) solely because the level of Ownership held by any Exchange Act Person (the “**Subject Person**”) exceeds the designated percentage threshold of the outstanding voting securities as a result of a repurchase or other acquisition of voting securities by the Company reducing the number of shares outstanding, provided that if a Change in Control would occur (but for the operation of this sentence) as a result of the acquisition of voting securities by the Company, and after such share acquisition, the Subject Person becomes the Owner of any additional voting securities that, assuming the repurchase or other acquisition had not occurred, increases the percentage of the then outstanding voting securities Owned by the Subject Person over the designated percentage threshold, then a Change in Control shall be deemed to occur;

(2) there is consummated a merger, consolidation or similar transaction involving (directly or indirectly) the Company and, immediately after the consummation of such merger, consolidation or similar transaction, the stockholders of the Company immediately prior thereto do not Own, directly or indirectly, either (A) outstanding voting securities representing more than 50% of the combined outstanding voting power of the surviving Entity in such merger, consolidation or similar transaction or (B) more than 50% of the combined outstanding voting power of the parent of the surviving Entity in such merger, consolidation or similar transaction, in each case in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such transaction;

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(3) the stockholders of the Company approve or the Board approves a plan of complete dissolution or liquidation of the Company, or a complete dissolution or liquidation of the Company shall otherwise occur;

(4) there is consummated a sale, lease, exclusive and worldwide license, or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries, other than a sale, lease, license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries to an Entity, more than 50% of the combined voting power of the voting securities of which are Owned by stockholders of the Company in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such sale, lease, license or other disposition; or

(5) individuals who, on Effective Date, are members of the Board (the "*Incumbent Board*") cease for any reason to constitute at least a majority of the members of the Board; provided, however, that if the appointment or election (or nomination for election) of any new Board member was approved or recommended by a majority vote of the members of the Incumbent Board then still in office, such new member shall, for purposes of this Plan, be considered as a member of the Incumbent Board.

Notwithstanding the foregoing or any other provision of this Plan, the term Change in Control shall not include a sale of assets, merger or other transaction effected exclusively for the purpose of changing the domicile of the Company. Once a Change in Control has occurred, no future events shall constitute a Change in Control for purposes of the Plan.

(g) "*Closing*" means the initial closing of the Change in Control as defined in the definitive agreement executed in connection with the Change in Control. In the case of a series of transactions constituting a Change in Control, "*Closing*" means the first closing that satisfies the threshold of the definition for a Change in Control.

(h) "*COBRA*" means the Consolidated Omnibus Budget Reconciliation Act of 1985.

(i) "*Code*" means the Internal Revenue Code of 1986, as amended.

(j) "*Company*" means ACADIA Pharmaceuticals Inc. or, following a Change in Control, the surviving entity resulting from such event.

(k) "*Covered Period*" means the period commencing 30 days prior to the Closing of a Change in Control and ending 13 months following the Closing of a Change in Control.

(l) "*Covered Termination*" means an Involuntary Termination that occurs within the Covered Period. For such purposes, if the events giving rise to an employee's right to resign for Good Reason arise within the Covered Period, and the employee's resignation occurs not later than 30 days after the expiration of the Cure Period (as defined below), such termination shall be a Covered Termination.

(m) "*Director*" means a member of the Board.

(n) "*Eligible Employee*" means an employee of the Company that meets the requirements to be eligible to receive Plan benefits as set forth in Section 2.

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(o) **“Entity”** means a corporation, partnership, limited liability company or other entity.

(p) **“Exchange Act”** means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

(q) **“Exchange Act Person”** means any natural person, Entity or “group” (within the meaning of Section 13(d) or 14(d) of the Exchange Act), except that “Exchange Act Person” shall not include (i) the Company or any Subsidiary of the Company, (ii) any employee benefit plan of the Company or any Subsidiary of the Company or any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any Subsidiary of the Company, (iii) an underwriter temporarily holding securities pursuant to a registered public offering of such securities, (iv) an Entity Owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their Ownership of stock of the Company; or (v) any natural person, Entity or “group” (within the meaning of Section 13(d) or 14(d) of the Exchange Act) that, as of the Effective Date, is the Owner, directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company’s then outstanding securities.

(r) **“Good Reason”** for an employee’s resignation means the occurrence of any of the following events, conditions or actions taken by the Company without Cause and without such employee’s consent: (i) the assignment to employee of any duties or responsibilities that results in a material diminution in the employee’s authorities, duties or responsibilities as in effect immediately prior to such reduction; provided, however, that a change in the employee’s title or reporting relationships shall not provide the basis for a termination with Good Reason; (ii) a material reduction by the Company in the employee’s annual base salary, as in effect prior to such reduction; (iii) a relocation of the employee’s principal business office to a location that increases the employee’s one-way driving distance by 30 miles or more, except for required travel by the employee on the Company’s business consistent with such employee’s business travel obligations as in effect on the Effective Date; or (iv) a material breach by the Company of any provision of the Plan or any other material agreement between the employee and the Company concerning the terms and conditions of the employee’s employment; *provided, however*, that in each case above, in order for the employee’s resignation to be deemed to have been for Good Reason, the employee must first give the Company written notice of the action or omission giving rise to “Good Reason” within 30 days after the first occurrence thereof; the Company must fail to reasonably cure such action or omission within 30 days after receipt of such notice (the **“Cure Period”**), and the employee’s resignation must be effective not later than 30 days after the expiration of such Cure Period.

(s) **“Involuntary Termination”** means a termination of employment that is due to: (i) a termination by the Company without Cause or (ii) an employee’s resignation for Good Reason.

(t) **“Own,” “Owned,” “Owner,” “Ownership”** means a person or Entity shall be deemed to “Own,” to have “Owned,” to be the “Owner” of, or to have acquired “Ownership” of securities if such person or Entity, directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, has or shares voting power, which includes the power to vote or to direct the voting, with respect to such securities.

(u) **“Participation Agreement”** means an agreement between an employee and the Company in substantially the form of Appendix A attached hereto, and which may include such other terms as the Board deems necessary or advisable in the administration of the Plan.

(v) **“Plan Administrator”** means the Board prior to the Closing and the Representative upon and following the Closing.

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(w) “*Representative*” means one or more members of the Board or other persons or entities designated by the Board prior to or in connection with a Change in Control that will have authority to administer and interpret the Plan upon and following the Closing as provided in Section 7(a).

(x) “*Subsidiary*” means, with respect to the Company, (i) any corporation of which more than 50% of the outstanding capital stock having ordinary voting power to elect a majority of the board of directors of such corporation (irrespective of whether, at the time, stock of any other class or classes of such corporation shall have or might have voting power by reason of the happening of any contingency) is at the time, directly or indirectly, Owned by the Company, and (ii) any partnership, limited liability company or other entity in which the Company has a direct or indirect interest (whether in the form of voting or participation in profits or capital contribution) of more than 50%.

(y) “*Target Bonus*” means with respect to an Eligible Employee, if there is a cash bonus plan applicable to such Eligible Employee for the year in which such Covered Termination occurs (“*Cash Bonus Plan*”), the cash bonus payable to such Eligible Employee under such Cash Bonus Plan as if all the applicable performance goals were attained for such year were attained at a level of 100%. If no Cash Bonus Plan is in effect for the year in which such Covered Termination occurs, the Target Bonus Amount will be \$0.

## **Section 2. ELIGIBILITY FOR BENEFITS.**

(a) **Eligible Employee.** An employee of the Company is eligible to participate in the Plan if (i) the Board has designated such employee as eligible to participate in the Plan by providing such person with a Participation Agreement; (ii) such employee has signed and returned such Participation Agreement to the Company within the period specified therein; (iii) such employee’s employment with the Company terminates due to a Covered Termination; and (iv) such employee meets the other Plan eligibility requirements set forth in this Section 2. The determination of whether an employee is an Eligible Employee shall be made by the Plan Administrator, in its sole discretion, and such determination shall be binding and conclusive on all persons.

(b) **Release Requirement.** In order to be eligible to receive benefits under the Plan, the employee also must execute a general waiver and release in substantially the form attached hereto as Exhibit A, Exhibit B or Exhibit C, as appropriate (the “*Release*”), within the applicable time period set forth therein, but in no event more than 50 days following the date of the applicable Covered Termination, and such Release must become effective in accordance with its terms. The Company, in its sole discretion, may modify the form of the Release to comply with applicable law and shall determine the form of the required Release, which may be incorporated into a termination agreement or other agreement with the employee.

(c) **Plan Benefits Provided in Lieu of Individual Agreement Severance Benefits.** Unless otherwise determined by the Plan Administrator in its discretion, if an employee is an Eligible Employee and eligible to receive severance benefits under this Plan and otherwise eligible to receive severance benefits under the terms of an individually negotiated employment contract or agreement with the Company or any other severance arrangement with the Company that are of the same category and would otherwise duplicate the severance benefits available under this Plan (“*Duplicative Benefits*”) such Eligible Employee will receive severance benefits under this Plan in lieu of, and not additional to, such Duplicative Benefits. If an Eligible Employee is eligible to receive Plan benefits, such Eligible Employee will receive severance benefits under any individually negotiated employment contract or agreement only to the extent that such benefits are not Duplicative Benefits.

(d) **Exceptions to Benefit Entitlement.** An employee who otherwise is an Eligible Employee will not receive benefits under the Plan in the following circumstances, as determined by the Plan Administrator in its sole discretion:

(1) The employee voluntarily terminates employment with the Company without Good Reason, or terminates employment due to the employee’s death or disability. Voluntary terminations include, but are not limited to, resignation, retirement, or failure to return from a leave of absence on the scheduled date.

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(2) The employee voluntarily terminates employment with the Company in order to accept employment with another entity that is wholly or partly owned (directly or indirectly) by the Company or an Affiliate.

(3) The employee is offered an identical or substantially equivalent or comparable position with the Company or an Affiliate. For purposes of the foregoing, a “substantially equivalent or comparable position” is one that provides the employee substantially the same level of responsibility and compensation and would not give rise to the employee’s right to resign for Good Reason.

(4) The employee is offered immediate reemployment by a successor to the Company or an Affiliate or by a purchaser of the Company’s assets, as the case may be, following a Change in Control and the terms of such reemployment would not give rise to the employee’s right to resign for Good Reason. For purposes of the foregoing, “immediate reemployment” means that the employee’s employment with the successor to the Company or an Affiliate or the purchaser of its assets, as the case may be, results in uninterrupted employment such that the employee does not incur a lapse in pay or benefits as a result of the change in ownership of the Company or the sale of its assets.

(5) The employee is rehired by the Company or an Affiliate and recommences employment prior to the date benefits under the Plan are scheduled to commence.

**Section 3. AMOUNT OF BENEFIT.**

(a) **Severance Benefit.** Benefits under the Plan shall be provided to an Eligible Employee as set forth in the Participation Agreement.

(b) **Additional Benefits.** Notwithstanding the foregoing, the Company may, in its sole discretion, provide benefits to employees who are not Eligible Employees (“*Non-Eligible Employees*”) chosen by the Board, in its sole discretion, and the provision of any such benefits to a Non-Eligible Employee shall in no way obligate the Company to provide such benefits to any other Non-Eligible Employee, even if similarly situated. If benefits under the Plan are provided to a Non-Eligible Employee, references in the Plan to “Eligible Employee” (and similar references) shall be deemed to refer to such Non-Eligible Employee.

(c) **Certain Reductions.** The Company, in its sole discretion, shall have the authority to reduce an Eligible Employee’s severance benefits, in whole or in part, by pay and benefits provided during a period following written notice of a plant closing or mass layoff, pay and benefits in lieu of such notice, or other similar benefits payable to the Eligible Employee by the Company or an Affiliate that become payable in connection with the Eligible Employee’s termination of employment pursuant to (i) any applicable legal requirement, including, without limitation, the Worker Adjustment and Retraining Notification Act or any other similar state law, or (ii) any Company policy or practice providing for the Eligible Employee to remain on the payroll for a limited period of time after being given notice of the termination of the Eligible Employee’s employment, and the Plan Administrator shall so construe and implement the terms of the Plan. Any such reductions that the Company determines to make pursuant to this Section 3(c) shall be made such that any benefit under the Plan shall be reduced solely by any similar type of benefit under such legal requirement, agreement, policy or practice (*i.e.*, any cash severance benefits under the Plan shall be reduced solely by any cash payments or severance benefits under such legal requirement, agreement, policy or practice, and any continued insurance benefits under the Plan shall be reduced solely by any continued insurance benefits under such legal requirement, agreement, policy or practice). The Company’s decision to apply such reductions to the severance benefits of one Eligible Employee and the amount of such reductions shall in no way obligate the



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Company to apply the same reductions in the same amounts to the severance benefits of any other Eligible Employee, even if similarly situated. In the Company's sole discretion, such reductions may be applied on a retroactive basis, with severance benefits previously paid being re-characterized as payments pursuant to the Company's statutory obligation.

**(d) Parachute Payments.**

(1) Any provision of the Plan to the contrary notwithstanding, if any payment or benefit an Eligible Employee would receive from the Company pursuant to the Plan or otherwise ("**Payment**") would (i) constitute a "parachute payment" within the meaning of Section 280G of the Code, and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the "**Excise Tax**"), then such Payment will be equal to the Reduced Amount (defined below). The "**Reduced Amount**" shall be either (x) the largest portion of the Payment that would result in no portion of the Payment being subject to the Excise Tax or (y) the largest portion, up to and including the total, of the Payment, whichever amount, after taking into account all applicable federal, state and local employment taxes, income taxes, and the Excise Tax (all computed at the highest applicable marginal rate), results in the Eligible Employee's receipt, on an after-tax basis, of the greater economic benefit notwithstanding that all or some portion of the Payment may be subject to the Excise Tax. If a reduction in payments or benefits constituting "parachute payments" is necessary so that the Payment equals the Reduced Amount, reduction shall occur in the manner that results in the greatest economic benefit for the Eligible Employee. If more than one method of reduction will result in the same economic benefit, the items so reduced will be reduced pro rata.

(2) In the event it is subsequently determined by the Internal Revenue Service that some portion of the Reduced Amount as determined pursuant to clause (x) in the preceding paragraph is subject to the Excise Tax, the Eligible Employee agrees to promptly return to the Company a sufficient amount of the Payment so that no portion of the Reduced Amount is subject to the Excise Tax. For the avoidance of doubt, if the Reduced Amount is determined pursuant to clause (y) in the preceding paragraph, the Eligible Employee will have no obligation to return any portion of the Payment pursuant to the preceding sentence.

(3) Unless the Eligible Employee and the Company agree on an alternative accounting firm or law firm, the accounting firm engaged by the Company for general tax compliance purposes as of the day prior to the effective date of the Change in Control shall perform the foregoing calculations. If the accounting firm so engaged by the Company is serving as accountant or auditor for the individual, entity or group effecting the Change in Control, the Company shall appoint a nationally recognized accounting or law firm to make the determinations required hereunder. The Company shall bear all expenses with respect to the determinations by such accounting or law firm required to be made hereunder.

**Section 4. RETURN OF COMPANY PROPERTY.**

An Eligible Employee will not be entitled to any severance benefit under the Plan unless and until the Eligible Employee returns all Company Property. For this purpose, "Company Property" means all Company documents (and all copies thereof) and other Company property which the Eligible Employee had in his or her possession at any time, including, but not limited to, Company files, notes, drawings, records, plans, forecasts, reports, studies, analyses, proposals, agreements, financial information, research and development information, sales and marketing information, operational and personnel information, specifications, code, software, databases, computer-recorded information, tangible property and equipment (including, but not limited to, computers, facsimile machines, mobile telephones, servers), credit cards, entry cards, identification badges and keys; and any materials of any kind which contain or embody any proprietary or confidential information of the Company (and all reproductions thereof in whole or in part).

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**Section 5. TIME OF PAYMENT AND FORM OF BENEFIT.**

The Company reserves the right in the Participation Agreement to specify whether severance payments under the Plan will be paid in a single sum, in installments, or in any other form and to determine the timing of such payments. All such payments under the Plan will be subject to applicable withholding for federal, state, and local taxes. If an Eligible Employee is indebted to the Company on his or her termination date, the Company reserves the right to offset any severance payments under the Plan by the amount of such indebtedness. All severance benefits provided under the Plan are intended to satisfy the requirements for an exemption from application of Section 409A of the Code to the maximum extent that an exemption is available and any ambiguities herein shall be interpreted accordingly.

Notwithstanding anything to the contrary set forth herein, any payments and benefits provided under the Plan that constitute “deferred compensation” within the meaning of Section 409A of the Code and the regulations and other guidance thereunder and any state law of similar effect (collectively “**Section 409A**”) shall not commence in connection with an Eligible Employee’s termination of employment unless and until the Eligible Employee has also incurred a “separation from service,” as such term is defined in Treasury Regulations Section 1.409A-1(h) (“**Separation from Service**”), unless the Company reasonably determines that such amounts may be provided to the Eligible Employee without causing the Eligible Employee to incur the adverse personal tax consequences under Section 409A.

It is intended that (i) each installment of any benefits payable under the Plan to an Eligible Employee be regarded as a separate “payment” for purposes of Treasury Regulations Section 1.409A-2(b)(2)(i), (ii) all payments of any such benefits under the Plan satisfy, to the greatest extent possible, the exemptions from the application of Section 409A provided under Treasury Regulations Sections 1.409A-1(b)(4) and 1.409A-1(b)(9)(iii), and (iii) any such benefits consisting of COBRA premiums also satisfy, to the greatest extent possible, the exemption from the application of Section 409A provided under Treasury Regulations Section 1.409A-1(b)(9)(v). However, if the Company determines that any such benefits payable under the Plan constitute “deferred compensation” under Section 409A and the Eligible Employee is a “specified employee” of the Company, as such term is defined in Section 409A(a)(2)(B) (i), then, solely to the extent necessary to avoid the imposition of the adverse personal tax consequences under Section 409A, (i) the timing of such benefit payments shall be delayed until the earlier of (A) the date that is 6 months and 1 day after the Eligible Employee’s Separation from Service and (B) the date of the Eligible Employee’s death (such applicable date, the “**Delayed Initial Payment Date**”), and (ii) the Company shall (A) pay the Eligible Employee a lump sum amount equal to the sum of the benefit payments that the Eligible Employee would otherwise have received through the Delayed Initial Payment Date if the commencement of the payment of the benefits had not been delayed pursuant to this paragraph and (B) commence paying the balance, if any, of the benefits in accordance with the applicable payment schedule.

In no event shall payment of any benefits under the Plan be made prior to an Eligible Employee’s termination date or prior to the effective date of the Release. If the Company determines that any payments or benefits provided under the Plan constitute “deferred compensation” under Section 409A, and the Eligible Employee’s Separation from Service occurs at a time during the calendar year when the Release could become effective in the calendar year following the calendar year in which the Eligible Employee’s Separation from Service occurs, then regardless of when the Release is returned to the Company and becomes effective, the Release will not be deemed effective any earlier than the latest permitted effective date (the “**Release Deadline**”). If the Company determines that any payments or

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benefits provided under the Plan constitute “deferred compensation” under Section 409A, then except to the extent that payments may be delayed until the Delayed Initial Payment Date pursuant to the preceding paragraph, on the first regular payroll date following the effective date of an Eligible Employee’s Release, the Company shall (i) pay the Eligible Employee a lump sum amount equal to the sum of the benefit payments that the Eligible Employee would otherwise have received through such payroll date but for the delay in payment related to the effectiveness of the Release and (ii) commence paying the balance, if any, of the benefits in accordance with the applicable payment schedule.

**Section 6. REEMPLOYMENT.**

In the event of an Eligible Employee’s reemployment by the Company during the period of time in respect of which severance benefits pursuant to the Plan have been paid, the Company, in its sole and absolute discretion, may require such Eligible Employee to repay to the Company all or a portion of such severance benefits as a condition of reemployment.

**Section 7. RIGHT TO INTERPRET AND ADMINISTER PLAN; AMENDMENT AND TERMINATION.**

**(a) Interpretation and Administration.** Prior to the Closing, the Board shall be the Plan Administrator and shall have the exclusive discretion and authority to establish rules, forms, and procedures for the administration of the Plan and to construe and interpret the Plan and to decide any and all questions of fact, interpretation, definition, computation or administration arising in connection with the operation of the Plan, including, but not limited to, the eligibility to participate in the Plan and amount of benefits paid under the Plan. The rules, interpretations, computations and other actions of the Board shall be binding and conclusive on all persons. Upon and after the Closing, the Plan will be interpreted and administered in good faith by the Representative who shall be the Plan Administrator during such period. All actions taken by the Representative in interpreting the terms of the Plan and administering the Plan upon and after the Closing will be final and binding on all Eligible Employees. Any references in this Plan to the “Board” or “Plan Administrator” with respect to periods following the Closing shall mean the Representative.

**(b) Amendment.** The Plan Administrator reserves the right to amend this Plan at any time; *provided, however*, that any amendment of the Plan will not be effective as to a particular employee who is or may be adversely impacted by such amendment or termination and has an effective Participation Agreement without the written consent of such employee. Any action amending the Plan shall be in writing and executed by the Company’s Chairman of the Board (prior to the Closing) or the Representative (following the Closing).

**(c) Termination.** The Plan will automatically terminate upon the earliest of: (i) the date 5 years after the Effective Date, if the Closing has not occurred on or prior to such date, or (ii) following satisfaction of all the Company’s obligations under the Plan.

**Section 8. NO IMPLIED EMPLOYMENT CONTRACT.**

The Plan shall not be deemed (i) to give any employee or other person any right to be retained in the employ of the Company or (ii) to interfere with the right of the Company to discharge any employee or other person at any time, with or without cause, which right is hereby reserved.

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**Section 9. LEGAL CONSTRUCTION.**

This Plan is intended to be governed by and shall be construed in accordance with the Employee Retirement Income Security Act of 1974 (“ERISA”) and, to the extent not preempted by ERISA, the laws of the State of California.

**Section 10. CLAIMS, INQUIRIES AND APPEALS.**

**(a) Applications for Benefits and Inquiries.** Any application for benefits, inquiries about the Plan or inquiries about present or future rights under the Plan must be submitted to the Plan Administrator in writing by an applicant (or his or her authorized representative). The Plan Administrator is:

ACADIA Pharmaceuticals Inc.  
Board of Directors  
3911 Sorrento Valley Blvd.  
San Diego, CA 92121

**(b) Denial of Claims.** In the event that any application for benefits is denied in whole or in part, the Plan Administrator must provide the applicant with written or electronic notice of the denial of the application, and of the applicant’s right to review the denial. Any electronic notice will comply with the regulations of the U.S. Department of Labor. The notice of denial will be set forth in a manner designed to be understood by the applicant and will include the following:

(1) the specific reason or reasons for the denial;

(2) references to the specific Plan provisions upon which the denial is based;

(3) a description of any additional information or material that the Plan Administrator needs to complete the review and an explanation of why such information or material is necessary; and

(4) an explanation of the Plan’s review procedures and the time limits applicable to such procedures, including a statement of the applicant’s right to bring a civil action under Section 502(a) of ERISA following a denial on review of the claim, as described in Section 10(d) below.

This notice of denial will be given to the applicant within 90 days after the Plan Administrator receives the application, unless special circumstances require an extension of time, in which case, the Plan Administrator has up to an additional 90 days for processing the application. If an extension of time for processing is required, written notice of the extension will be furnished to the applicant before the end of the initial 90 day period.

This notice of extension will describe the special circumstances necessitating the additional time and the date by which the Plan Administrator is to render its decision on the application.

**(c) Request for a Review.** Any person (or that person’s authorized representative) for whom an application for benefits is denied, in whole or in part, may appeal the denial by submitting a request for a review to the Plan Administrator within 60 days after the application is denied. A request for a review shall be in writing and shall be addressed to:

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ACADIA Pharmaceuticals Inc.  
Board of Directors  
3911 Sorrento Valley Blvd.  
San Diego, CA 92121

A request for review must set forth all of the grounds on which it is based, all facts in support of the request and any other matters that the applicant feels are pertinent. The applicant (or his or her representative) shall have the opportunity to submit (or the Plan Administrator may require the applicant to submit) written comments, documents, records, and other information relating to his or her claim. The applicant (or his or her representative) shall be provided, upon request and free of charge, reasonable access to, and copies of, all documents, records and other information relevant to his or her claim. The review shall take into account all comments, documents, records and other information submitted by the applicant (or his or her representative) relating to the claim, without regard to whether such information was submitted or considered in the initial benefit determination.

**(d) Decision on Review.** The Plan Administrator will act on each request for review within 60 days after receipt of the request, unless special circumstances require an extension of time (not to exceed an additional 60 days), for processing the request for a review. If an extension for review is required, written notice of the extension will be furnished to the applicant within the initial 60 day period. This notice of extension will describe the special circumstances necessitating the additional time and the date by which the Plan Administrator is to render its decision on the review. The Plan Administrator will give prompt, written or electronic notice of its decision to the applicant. Any electronic notice will comply with the regulations of the U.S. Department of Labor. In the event that the Plan Administrator confirms the denial of the application for benefits in whole or in part, the notice will set forth, in a manner calculated to be understood by the applicant, the following:

- (1) the specific reason or reasons for the denial;
- (2) references to the specific Plan provisions upon which the denial is based;
- (3) a statement that the applicant is entitled to receive, upon request and free of charge, reasonable access to, and copies of, all documents, records and other information relevant to his or her claim; and
- (4) a statement of the applicant's right to bring a civil action under Section 502(a) of ERISA.

**(e) Rules and Procedures.** The Plan Administrator will establish rules and procedures, consistent with the Plan and with ERISA, as necessary and appropriate in carrying out its responsibilities in reviewing benefit claims. The Plan Administrator may require an applicant who wishes to submit additional information in connection with an appeal from the denial of benefits to do so at the applicant's own expense.

**(f) Exhaustion of Remedies.** No legal action for benefits under the Plan may be brought until the applicant (i) has submitted a written application for benefits in accordance with the procedures described by Section 10(a) above, (ii) has been notified by the Plan Administrator that the application is denied, (iii) has filed a written request for a review of the application in accordance with the appeal procedure described in Section 10(c) above, and (iv) has been notified that the Plan Administrator has denied the appeal. Notwithstanding the foregoing, if the Plan Administrator does not respond to an Eligible Employee's claim or appeal within the relevant time limits specified in this Section 10, the Eligible Employee may bring legal action for benefits under the Plan pursuant to Section 502(a) of ERISA.

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**Section 11. BASIS OF PAYMENTS TO AND FROM PLAN.**

The Plan shall be unfunded, and all cash payments under the Plan shall be paid only from the general assets of the Company.

**Section 12. OTHER PLAN INFORMATION.**

**(a) Employer and Plan Identification Numbers.** The Employer Identification Number assigned to the Company (which is the “Plan Sponsor” as that term is used in ERISA) by the Internal Revenue Service is 06-1376651. The Plan Number assigned to the Plan by the Plan Sponsor pursuant to the instructions of the Internal Revenue Service is 510.

**(b) Ending Date for Plan’s Fiscal Year.** The date of the end of the fiscal year for the purpose of maintaining the Plan’s records is December 31.

**(c) Agent for the Service of Legal Process.** The agent for the service of legal process with respect to the Plan is:

ACADIA Pharmaceuticals Inc.  
3911 Sorrento Valley Blvd.  
San Diego, CA 92121

In addition, service of legal process may be made upon the Plan Administrator.

**(d) Plan Sponsor.** The “Plan Sponsor” is:

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

**(e) Plan Administrator.** The Plan Administrator is the Board prior to the Closing and the Representative upon and following the Closing. The Plan Administrator’s contact information is:

ACADIA Pharmaceuticals Inc.  
Board of Directors or Representative  
3911 Sorrento Valley Blvd.  
San Diego, CA 92121  
(858) 558-2871

The Plan Administrator is the named fiduciary charged with the responsibility for administering the Plan.

**Section 13. STATEMENT OF ERISA RIGHTS.**

Participants in this Plan (which is a welfare benefit plan sponsored by ACADIA Pharmaceuticals Inc.) are entitled to certain rights and protections under ERISA. If you are an Eligible Employee, you are considered a participant in the Plan and, under ERISA, you are entitled to:

**(a) Receive Information About Your Plan and Benefits**

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(1) Examine, without charge, at the Plan Administrator's office and at other specified locations, such as worksites, all documents governing the Plan and a copy of the latest annual report (Form 5500 Series), if applicable, filed by the Plan with the U.S. Department of Labor and available at the Public Disclosure Room of the Employee Benefits Security Administration;

(2) Obtain, upon written request to the Plan Administrator, copies of documents governing the operation of the Plan and copies of the latest annual report (Form 5500 Series), if applicable, and an updated (as necessary) Summary Plan Description. The Administrator may make a reasonable charge for the copies; and

(3) Receive a summary of the Plan's annual financial report, if applicable. The Plan Administrator is required by law to furnish each Eligible Employee with a copy of this summary annual report.

**(b) Prudent Actions by Plan Fiduciaries.** In addition to creating rights for Plan Eligible Employees, ERISA imposes duties upon the people who are responsible for the operation of the employee benefit plan. The people who operate the Plan, called "fiduciaries" of the Plan, have a duty to do so prudently and in the interest of you and other Eligible Employees and beneficiaries. No one, including your employer, your union or any other person, may fire you or otherwise discriminate against you in any way to prevent you from obtaining a Plan benefit or exercising your rights under ERISA.

**(c) Enforce Your Rights.** If your claim for a Plan benefit is denied or ignored, in whole or in part, you have a right to know why this was done, to obtain copies of documents relating to the decision without charge, and to appeal any denial, all within certain time schedules.

Under ERISA, there are steps you can take to enforce the above rights. For instance, if you request a copy of Plan documents or the latest annual report from the Plan, if applicable, and do not receive them within 30 days, you may file suit in a Federal court. In such a case, the court may require the Plan Administrator to provide the materials and pay you up to \$110 a day until you receive the materials, unless the materials were not sent because of reasons beyond the control of the Plan Administrator.

If you have a claim for benefits which is denied or ignored, in whole or in part, you may file suit in a state or Federal court.

If you are discriminated against for asserting your rights, you may seek assistance from the U.S. Department of Labor, or you may file suit in a Federal court. The court will decide who should pay court costs and legal fees. If you are successful, the court may order the person you have sued to pay these costs and fees. If you lose, the court may order you to pay these costs and fees, for example, if it finds your claim is frivolous.

**(d) Assistance with Your Questions.** If you have any questions about the Plan, you should contact the Plan Administrator. If you have any questions about this statement or about your rights under ERISA, or if you need assistance in obtaining documents from the Plan Administrator, you should contact the nearest office of the Employee Benefits Security Administration, U.S. Department of Labor, listed in your telephone directory or the Division of Technical Assistance and Inquiries, Employee Benefits Security Administration, U.S. Department of Labor, 200 Constitution Avenue N.W., Washington, D.C. 20210. You may also obtain certain publications about your rights and responsibilities under ERISA by calling the publications hotline of the Employee Benefits Security Administration.

APPENDIX A  
ACADIA PHARMACEUTICALS INC.  
CHANGE IN CONTROL SEVERANCE BENEFIT PLAN  
PARTICIPATION AGREEMENT

Name: \_\_\_\_\_

**Section 1. ELIGIBILITY.**

You have been designated as eligible to participate in the ACADIA Pharmaceuticals Inc. Change in Control Severance Benefit Plan (the “*Plan*”), a copy of which is attached as **EXHIBIT A** to this Participation Agreement (the “*Agreement*”). Capitalized terms not explicitly defined in this Agreement but defined in the Plan shall have the same definitions as in the Plan.

**Section 2. SEVERANCE BENEFITS**

Subject to the terms of the Plan, if you are terminated in a Covered Termination, and meet all the other eligibility requirements set forth in the Plan, including, without limitation, executing the required Release within the applicable time period set forth therein and provided that such Release becomes effective in accordance with its terms, you will receive the severance benefits set forth in this Section 2. Notwithstanding the schedule for provision of severance benefits as set forth below, the provision of any severance benefits under this Section 2 is subject to any delay in payment that may be required under Section 5 of the Plan.

**(a) Base Compensation Severance Benefit.** You will be entitled to receive a single lump sum cash payment equal to (\_\_\_\_%)<sup>1</sup> of the sum of your Annual Base Salary plus Average Annual Bonus (the “Base Compensation Severance Benefit”). The Base Compensation Severance Benefit will be payable to you within 10 business days following the later of (i) the effective date of your Release, or (ii) the effective date of the Closing.

**(b) Target Bonus Severance Benefit.** You will be entitled to receive a single lump sum cash payment equal to a pro-rata portion of your Target Bonus, with such pro-rata portion calculated with reference to the number of days in the calendar year that precedes the date of the Covered Termination divided by the number of days in the calendar year that includes the date of the Covered Termination (the “*Target Bonus Severance Benefit*”). The Target Bonus Severance Benefit will be payable to you within 10 business days following the later of (i) the effective date of your Release, or (ii) the effective date of the Closing.

**(c) Accelerated Vesting of Stock Awards.**

**(1)** Effective as of the later of the effective date of your Release or the effective date of the Closing, to the extent not previously vested: (i) the vesting and exercisability of all outstanding stock options to purchase the Company’s common stock that are held by you on such date shall be accelerated in full, (ii) any reacquisition or repurchase rights held by the Company in respect of common stock *issued* pursuant to any other stock award granted to you by the Company shall lapse in full, and (iii) the vesting of any other stock awards granted to you by the Company, and any issuance of

<sup>1</sup> Base Compensation Severance Benefits for named executive officers to be provided as follows:

<u>Name and Position</u>	<u>% of Annual Base Salary plus Average Annual Bonus</u>
Uli Hacksell, CEO & President	1.5%
Thomas H. Aasen, EVP, CFO & CBO	1.3%
Roger M. Mills, EVP, Development & CMO	1.3%
Glenn F. Baity, VP & GC	1.15%



shares triggered by the vesting of such stock awards, shall be accelerated in full. Notwithstanding the foregoing, this Section 2(c) shall not apply to stock awards issued under or held in any Qualified Plan. For purposes of determining the number of shares that will vest pursuant to the foregoing provision with respect to any performance based vesting award that has multiple vesting levels depending upon the level of performance, vesting acceleration shall occur with respect to the number of shares subject to the award as if the applicable performance criteria had been attained at a 100% level.

(2) In order to give effect to the intent of the foregoing provision, notwithstanding anything to the contrary set forth in your stock award agreements or the applicable equity incentive plan under which such stock award was granted that provides that any then unvested portion of your award will immediately expire upon your termination of service, no unvested portion of your stock award shall terminate any earlier than 30 days following any Involuntary Termination of your employment that occurs prior to a Closing. Notwithstanding anything to the contrary set forth herein, your stock awards shall remain subject to earlier termination in connection with a "Corporate Transaction" as provided in the Equity Plan or substantially equivalent provisions applicable to your stock award.

**(d) Payment of Continued Group Health Plan Benefits.**

(1) If you timely elect continued group health plan continuation coverage under COBRA the Company shall pay the full amount of your COBRA premiums, or shall provide coverage under any self-funded plan, on behalf of you for your continued coverage under the Company's group health plans, including coverage for your eligible dependents, for [\_\_\_\_\_] months following your Covered Termination (the "**COBRA Payment Period**"). Upon the conclusion of such period of insurance premium payments made by the Company, or the provision of coverage under a self-funded group health plan, you will be responsible for the entire payment of premiums (or payment for the cost of coverage) required under COBRA for the duration of your eligible COBRA coverage period. For purposes of this Section, (i) references to COBRA shall be deemed to refer also to analogous provisions of state law and (ii) any applicable insurance premiums that are paid by the Company shall not include any amounts payable by you under an Internal Revenue Code Section 125 health care reimbursement plan, which amounts, if any, are your sole responsibility.

(2) Notwithstanding the foregoing, if at any time the Company determines, in its sole discretion, that it cannot provide the COBRA premium benefits without potentially incurring financial costs or penalties under applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then in lieu of paying COBRA premiums on the your behalf, the Company will instead pay you on the last day of each remaining month of the COBRA Payment Period a fully taxable cash payment equal to the COBRA premium for that month, subject to applicable tax withholding (such amount, the "**Special Severance Payment**"), such Special Severance Payment to be made without regard to yours election of COBRA coverage or payment of COBRA premiums and without regard to your continued eligibility for COBRA coverage during the COBRA Payment Period. Such Special Severance Payment shall end upon expiration of the COBRA Payment Period.

**(e) Outplacement Benefits.** You will receive outplacement services of up to \$\_\_\_\_\_ through an agency selected by the Company.<sup>3</sup>

<sup>2</sup> COBRA Payment Periods for named executive officers are as follows:

<u>Name and Position</u>	<u>COBRA Payment Period</u>
Uli Hacksell, CEO & President	18 Months
Thomas H. Aasen, EVP, CFO & CBO	16 Months
Roger M. Mills, EVP, Development & CMO	16 Months
Glenn F. Baity, VP & GC	14 Months

<sup>3</sup> Outplacement benefits for named executive officers are as follows:

<u>Name and Position</u>	<u>Amount</u>
Uli Hacksell, CEO & President	\$18,000
Thomas H. Aasen, EVP, CFO & CBO	\$15,600
Roger M. Mills, EVP, Development & CMO	\$15,600
Glenn F. Baity, VP & GC	\$13,800

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**Section 3. DEFINITIONS.**

(a) "**Equity Plan**" means the Company's 1997 Stock Option Plan, 2004 Equity Incentive Plan, 2010 Equity Incentive Plan or any successor or other equity incentive plan adopted by the Company which govern your stock awards, as applicable.

(b) "**Qualified Plan**" means a plan sponsored by the Company or an Affiliate that is intended to be qualified under Section 401(a) of the Internal Revenue Code.

**Section 4. ACKNOWLEDGEMENTS.**

As a condition to participation in the Plan, you hereby acknowledge each of the following:

(a) The severance benefits that may be provided to you under this Agreement are subject to certain reductions under Section 3 of the Plan.

(b) This Agreement and the Plan supersedes any severance benefit plan, policy or practice previously maintained by the Company that may have been applicable to you. Notwithstanding the foregoing, this Agreement and the Plan do not supersede your individually negotiated employment agreement with the Company dated \_\_\_\_\_, as it may be amended thereafter from time to time (as so amended, the "**Employment Agreement**").

(c) The severance benefits that may be provided to you under this Agreement may reduce the severance benefits that would otherwise be provided to you under your Employment Agreement as further specified in Section 2(c) of the Plan.

To accept the terms of this Agreement and participate in the Plan, please sign and date this Agreement in the space provided below and return it to \_\_\_\_\_ no later than \_\_\_\_\_, 2013.

**ACADIA Pharmaceuticals Inc.**

By: \_\_\_\_\_  
\_\_\_\_\_

Title: \_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
[Eligible Employee]

\_\_\_\_\_  
Date

EXHIBIT A  
RELEASE AGREEMENT

**I understand and agree completely to the terms set forth in the ACADIA Pharmaceuticals Inc. Change in Control Severance Benefit Plan (the “Plan”).**

I understand that this Release Agreement (the “*Release*”), together with the Plan, constitutes the complete, final and exclusive embodiment of the entire agreement between the Company, affiliates of the Company and me with regard to the subject matter hereof. I am not relying on any promise or representation by the Company or an affiliate of the Company that is not expressly stated therein. Certain capitalized terms used in this Release are defined in the Plan.

I hereby confirm my obligations under my proprietary information and inventions agreement with the Company and/or an affiliate of the Company.

In consideration of the severance benefits and other consideration provided to me under the Plan that I am not otherwise entitled to receive, I hereby generally and completely release the Company and its affiliates, and their parents, subsidiaries, successors, predecessors and affiliates, and their current and former partners, members, directors, officers, employees, stockholders, shareholders, agents, attorneys, predecessors, successors, insurers, affiliates and assigns, from any and all claims, liabilities and obligations, both known and unknown, that arise out of or are in any way related to events, acts, conduct, or omissions occurring at any time prior to and including the date I sign this Release (collectively, the “Released Claims”). The Released Claims include, but are not limited to: (a) all claims arising out of or in any way related to my employment with the Company and its affiliates, or their affiliates, or the termination of that employment; (b) all claims related to my compensation or benefits, including salary, bonuses, commissions, vacation pay, expense reimbursements, severance pay, fringe benefits, stock, stock options, or any other ownership, equity, or profits interests in the Company and its affiliates, or their affiliates; (c) all claims for breach of contract, wrongful termination, and breach of the implied covenant of good faith and fair dealing; (d) all tort claims, including claims for fraud, defamation, emotional distress, and discharge in violation of public policy; and (e) all federal, state, and local statutory claims, including claims for discrimination, harassment, retaliation, attorneys’ fees, or other claims arising under the federal Civil Rights Act of 1964 (as amended), the federal Americans with Disabilities Act of 1990 (as amended), the federal Age Discrimination in Employment Act (as amended) (“*ADEA*”), and the federal Employee Retirement Income Security Act of 1974 (as amended).

Notwithstanding the foregoing, I understand that the following rights or claims are not included in the Released Claims: (a) any rights or claims for indemnification I may have pursuant to any written indemnification agreement with the Company or its affiliate to which I am a party; the charter, bylaws, or operating agreements of the Company or its affiliate; or under applicable law; or (b) any rights that cannot be waived as a matter of law. In addition, I understand that nothing in this Release prevents me from filing, cooperating with, or participating in any proceeding before the Equal Employment Opportunity Commission, the Department of Labor, or any other government agency, except that I hereby waive my right to any monetary benefits in connection with any such claim, charge or proceeding. I hereby represent and warrant that, other than the claims identified in this paragraph, I am not aware of any claims I have or might have that are not included in the Released Claims.

I acknowledge that I am knowingly and voluntarily waiving and releasing any rights I may have under the ADEA, and that the consideration given under the Plan for the waiver and release in this paragraph is in addition to anything of value to which I was already entitled. I further acknowledge that I

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have been advised by this writing, as required by the ADEA, that: (a) my waiver and release do not apply to any rights or claims that may arise after the date I sign this Release; (b) I should consult with an attorney prior to signing this Release (although I may choose voluntarily not do so); (c) I have twenty-one (21) days to consider this Release (although I may choose voluntarily to sign this Release earlier); (d) I have seven (7) days following the date I sign this Release to revoke the Release by providing written notice to an officer of the Company; and (e) this Release shall not be effective until the date upon which the revocation period has expired, which shall be the eighth day after I sign this Release provided I have not revoked it.

I hereby represent that I have been paid all compensation owed and for all hours worked; I have received all the leave and leave benefits and protections for which I am eligible pursuant to the Family and Medical Leave Act or otherwise; and I have not suffered any on-the-job injury for which I have not already filed a workers' compensation claim.

I acknowledge that to become effective, I must sign and return this Release to the Company so that it is received not later than twenty-one (21) days following the date it is provided to me or such other date as specified by the Company.

**ELIGIBLE EMPLOYEE**

Printed Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**EXHIBIT B**  
**RELEASE AGREEMENT**

**I understand and agree completely to the terms set forth in the ACADIA Pharmaceuticals Inc. Change in Control Severance Benefit Plan (the “Plan”).**

I understand that this Release Agreement (the “*Release*”), together with the Plan, constitutes the complete, final and exclusive embodiment of the entire agreement between the Company, affiliates of the Company and me with regard to the subject matter hereof. I am not relying on any promise or representation by the Company or an affiliate of the Company that is not expressly stated therein. Certain capitalized terms used in this Release are defined in the Plan.

I hereby confirm my obligations under my proprietary information and inventions agreement with the Company and/or an affiliate of the Company.

In consideration of the severance benefits and other consideration provided to me under the Plan that I am not otherwise entitled to receive, I hereby generally and completely release the Company and its affiliates, and their parents, subsidiaries, successors, predecessors and affiliates, and its and their current and former partners, members, directors, officers, employees, stockholders, shareholders, agents, attorneys, predecessors, successors, insurers, affiliates and assigns, from any and all claims, liabilities and obligations, both known and unknown, that arise out of or are in any way related to events, acts, conduct, or omissions occurring at any time prior to and including the date I sign this Release (collectively, the “Released Claims”). The Released Claims include, but are not limited to: (a) all claims arising out of or in any way related to my employment with the Company and its affiliates, or their affiliates, or the termination of that employment; (b) all claims related to my compensation or benefits, including salary, bonuses, commissions, vacation pay, expense reimbursements, severance pay, fringe benefits, stock, stock options, or any other ownership, equity, or profits interests in the Company and its affiliates, or their affiliates; (c) all claims for breach of contract, wrongful termination, and breach of the implied covenant of good faith and fair dealing; (d) all tort claims, including claims for fraud, defamation, emotional distress, and discharge in violation of public policy; and (e) all federal, state, and local statutory claims, including claims for discrimination, harassment, retaliation, attorneys’ fees, or other claims arising under the federal Civil Rights Act of 1964 (as amended), the federal Americans with Disabilities Act of 1990 (as amended), the federal Age Discrimination in Employment Act (as amended) (“*ADEA*”), and the federal Employee Retirement Income Security Act of 1974 (as amended).

Notwithstanding the foregoing, I understand that the following rights or claims are not included in the Released Claims: (a) any rights or claims for indemnification I may have pursuant to any written indemnification agreement with the Company or its affiliate to which I am a party; the charter, bylaws, or operating agreements of the Company or its affiliate; or under applicable law; or (b) any rights that cannot be waived as a matter of law. In addition, I understand that nothing in this Release prevents me from filing, cooperating with, or participating in any proceeding before the Equal Employment Opportunity Commission, the Department of Labor, or any other government agency, except that I hereby waive my right to any monetary benefits in connection with any such claim, charge or proceeding. I hereby represent and warrant that, other than the claims identified in this paragraph, I am not aware of any claims I have or might have that are not included in the Released Claims.

I acknowledge that I am knowingly and voluntarily waiving and releasing any rights I may have under the ADEA, and that the consideration given under the Plan for the waiver and release in this paragraph is in addition to anything of value to which I was already entitled. I further acknowledge that I

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have been advised by this writing, as required by the ADEA, that: (a) my waiver and release do not apply to any rights or claims that may arise after the date I sign this Release; (b) I should consult with an attorney prior to signing this Release (although I may choose voluntarily not to do so); (c) I have forty-five (45) days to consider this Release (although I may choose voluntarily to sign this Release earlier); (d) I have seven (7) days following the date I sign this Release to revoke the Release by providing written notice to an office of the Company; (e) this Release shall not be effective until the date upon which the revocation period has expired, which shall be the eighth day after I sign this Release provided I have not revoked it; and (f) I have received with this Release all of the information required by the ADEA, including without limitation a detailed list of the job titles and ages of all employees who were terminated in this group termination and the ages of all employees of the Company in the same job classification or organizational unit who were not terminated.

I hereby represent that I have been paid all compensation owed and for all hours worked; I have received all the leave and leave benefits and protections for which I am eligible pursuant to the Family and Medical Leave Act or otherwise; and I have not suffered any on-the-job injury for which I have not already filed a workers' compensation claim.

I acknowledge that to become effective, I must sign and return this Release to the Company so that it is received not later than forty-five (45) days following the date it is provided to me or such other date as specified by the Company.

**ELIGIBLE EMPLOYEE**

Printed Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**EXHIBIT C**  
**RELEASE AGREEMENT**

**I understand and agree completely to the terms set forth in the ACADIA Pharmaceuticals Inc. Change in Control Severance Benefit Plan (the “Plan”).**

I understand that this Release Agreement (the “*Release*”), together with the Plan, constitutes the complete, final and exclusive embodiment of the entire agreement between the Company, affiliates of the Company and me with regard to the subject matter hereof. I am not relying on any promise or representation by the Company or an affiliate of the Company that is not expressly stated therein. Certain capitalized terms used in this Release are defined in the Plan.

I hereby confirm my obligations under my proprietary information and inventions agreement with the Company and/or an affiliate of the Company.

In consideration of the severance benefits and other consideration provided to me under the Plan that I am not otherwise entitled to receive, I hereby generally and completely release the Company and its affiliates, and their parents, subsidiaries, successors, predecessors and affiliates, and its and their current and former partners, members, directors, officers, employees, stockholders, shareholders, agents, attorneys, predecessors, successors, insurers, affiliates and assigns, from any and all claims, liabilities and obligations, both known and unknown, that arise out of or are in any way related to events, acts, conduct, or omissions occurring at any time prior to and including the date I sign this Release (collectively, the “Released Claims”). The Released Claims include, but are not limited to: (a) all claims arising out of or in any way related to my employment with the Company and its affiliates, or their affiliates, or the termination of that employment; (b) all claims related to my compensation or benefits, including salary, bonuses, commissions, vacation pay, expense reimbursements, severance pay, fringe benefits, stock, stock options, or any other ownership, equity, or profits interests in the Company and its affiliates, or their affiliates; (c) all claims for breach of contract, wrongful termination, and breach of the implied covenant of good faith and fair dealing; (d) all tort claims, including claims for fraud, defamation, emotional distress, and discharge in violation of public policy; and (e) all federal, state, and local statutory claims, including claims for discrimination, harassment, retaliation, attorneys’ fees, or other claims arising under the federal Civil Rights Act of 1964 (as amended), the federal Americans with Disabilities Act of 1990 (as amended), and the federal Employee Retirement Income Security Act of 1974 (as amended).

Notwithstanding the foregoing, I understand that the following rights or claims are not included in the Released Claims: (a) any rights or claims for indemnification I may have pursuant to any written indemnification agreement with the Company or its affiliate to which I am a party; the charter, bylaws, or operating agreements of the Company or its affiliate; or under applicable law; or (b) any rights that cannot be waived as a matter of law. In addition, I understand that nothing in this Release prevents me from filing, cooperating with, or participating in any proceeding before the Equal Employment Opportunity Commission, the Department of Labor or any other government agency, except that I hereby waive my right to any monetary benefits in connection with any such claim, charge or proceeding. I hereby represent and warrant that, other than the claims identified in this paragraph, I am not aware of any claims I have or might have that are not included in the Released Claims.

I hereby represent that I have been paid all compensation owed and for all hours worked; I have received all the leave and leave benefits and protections for which I am eligible pursuant to the Family and Medical Leave Act or otherwise; and I have not suffered any on-the-job injury for which I have not already filed a workers’ compensation claim.

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I acknowledge that to become effective, I must sign and return this Release to the Company so that it is received not later than fourteen (14) days following the date it is provided to me or such other date as specified by the Company.

**ELIGIBLE EMPLOYEE**

Printed Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



## List of Subsidiaries

NAME OF SUBSIDIARY	JURISDICTION OF INCORPORATION
ACADIA Pharmaceuticals A/S	Denmark

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statement on Form S-3 (Nos. 333-171722, 333-178748 and 333-185639) and the Registration Statements on Form S-8 (Nos. 333-115956, 333-128290, 333-137557, 333-146398, 333-153346, 333-161057, 333-168667, 333-176212 and 333-183151) of ACADIA Pharmaceuticals Inc. of our report dated March 12, 2013 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP

San Diego, California  
March 12, 2013

**CERTIFICATION**  
**Pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934,**  
**as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, Uli Hacksell, Ph.D., certify that:

1. I have reviewed this annual report on Form 10-K for the year ended December 31, 2012 of ACADIA Pharmaceuticals Inc.
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 12, 2013

/s/ ULI HACKSELL

Uli Hacksell, Ph.D.  
Chief Executive Officer

**CERTIFICATION**  
**Pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934,**  
**as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, Thomas H. Aasen, certify that:

1. I have reviewed this annual report on Form 10-K for the year ended December 31, 2012 of ACADIA Pharmaceuticals Inc.
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 12, 2013

/s/ THOMAS H. AASEN

\_\_\_\_\_  
Thomas H. Aasen  
Executive Vice President, Chief Financial Officer  
and Chief Business Officer

**CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of ACADIA Pharmaceuticals Inc. (the "Company") on Form 10-K for the period ended December 31, 2012, as filed with the Securities and Exchange Commission on or about the date hereof (the "Report"), I, Uli Hacksell, Ph.D., Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

(1) the Report fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"); and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition of the Company at the end of the period covered by the Report and results of operations of the Company for the period covered by the Report.

Date: March 12, 2013

/s/ ULI HACKSELL

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**Uli Hacksell, Ph.D.**  
**Chief Executive Officer**

This certification shall not be deemed "filed" for purposes of Section 18 of the Exchange Act or otherwise subject to the liability of Section 18 of the Exchange Act. Such certification shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act, except to the extent that the Company specifically incorporates it by reference.

**CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of ACADIA Pharmaceuticals Inc. (the "Company") on Form 10-K for the period ended December 31, 2012, as filed with the Securities and Exchange Commission on or about the date hereof (the "Report"), I, Thomas H. Aasen, Executive Vice President, Chief Financial Officer and Chief Business Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

(1) the Report fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"); and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition of the Company at the end of the period covered by the Report and results of operations of the Company for the period covered by the Report.

Date: March 12, 2013

/s/ THOMAS H. AASEN

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**Thomas H. Aasen**  
Executive Vice President, Chief Financial Officer  
and Chief Business Officer

This certification shall not be deemed "filed" for purposes of Section 18 of the Exchange Act or otherwise subject to the liability of Section 18 of the Exchange Act. Such certification shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act, except to the extent that the Company specifically incorporates it by reference.