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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, 2007

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: 000-25571

TorreyPines Therapeutics, Inc.

(Exact name of registrant as specified in its charter)

DELAWARE	**86-0883978**
State or other jurisdiction of incorporation or organization	(I.R.S. Employer Identification No.)
11085 North Torrey Pines Road, Suite 300 La Jolla, California	**92037**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(858) 623-5665**

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

Common Stock, $0.001 par value
(Title of class)

The Nasdaq Stock Market LLC
(Name of Each Exchange on Which Registered)

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 Section 15(d) of the Act. ☐ Yes ☒ No

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of 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 definition of "accelerated filer," "large accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☐ Accelerated filer ☐ Non-accelerated filer ☐ (Do not check if a smaller reporting company) Smaller reporting company ☒

Indicate by check mark where the registrant is a shell company (as defined in Rule 12b-2 of the Act). ☐ Yes ☒ No

The aggregate market value of the Common Stock of the registrant (the "Common Stock") held by non-affiliates of the registrant, based on the last sale price of the Common Stock on June 29, 2007 (the last business day of the registrant's most recently completed second fiscal quarter) of $6.95 per share as reported by the Nasdaq Global Market, was approximately $67,306,000. Shares of Common Stock held by each officer and director and by each person who is known by the registrant to own 5% or more of the outstanding Common Stock, if any, have been excluded in that such persons may be deemed to be affiliates of the registrant. Share ownership information of certain persons known by the registrant to own greater than 5% of the outstanding common stock for purposes of the preceding calculation is based solely on information on Schedules 13D and 13G, if any, filed with the Securities and Exchange Commission and is as of June 29, 2007. This determination of affiliate status is not necessarily a conclusive determination for any other purposes.

As of March 14, 2008 there were 15,745,127 shares of our Common Stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement to be filed with the Securities and Exchange Commission by April 29, 2008 are incorporated by reference into Part III of this Annual Report on Form 10-K.

TORREYPINES THERAPEUTICS, INC.
FORM 10-K

For the Year Ended December 31, 2007

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PART I

Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements that involve a high degree of risk and uncertainty. Such statements include, but are not limited to, statements containing the words "believes," "anticipates," "expects," "estimates" and words of similar import. Our actual results could differ materially from any forward-looking statements, which reflect management's opinions only as of the date of this report, as a result of risks and uncertainties that exist in our operations, development efforts and business environment. Unless required by law, we undertake no obligation to update or revise any forward-looking statements to reflect new information or future events or developments. Thus, you should not assume that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements. You should carefully review the risks described in "Risk Factors" and elsewhere in this Annual Report on Form 10-K and the risk factors described in other documents that we file from time to time with the Securities and Exchange Commission, or SEC, including our Quarterly Reports on Form 10-Q.

TorreyPines Therapeutics and design, our tree logo and Posiphen are our trademarks or registered trademarks in the United States and certain other countries. We may also refer to trademarks of other corporations and organizations in this document.

Item 1. Business.

Overview

All references to "TorreyPines," "we," "us," "our" or the "Company" mean TorreyPines Therapeutics, Inc. and its subsidiaries, except where it is made clear that the term means only the parent company.

We are a biopharmaceutical company committed to providing patients with better alternatives to existing therapies through the research, development and commercialization of small molecule compounds. Our goal is to develop versatile product candidates each capable of treating a number of acute and chronic diseases and disorders such as migraine, chronic pain, muscle spasticity and rigidity, xerostomia and cognitive disorders. We are currently developing four product candidates, two ionotropic glutamate receptor antagonists and two muscarinic receptor agonists.

Our two ionotropic glutamate receptor antagonists, tezampanel and NGX426, are currently in clinical development. Tezampanel and NGX426 competitively block the binding of glutamate at the AMPA and kainate receptor subtypes. While normal glutamate production is essential, excess glutamate has been implicated in a number of diseases and disorders. Tezampanel and NGX426 are the first glutamate receptor antagonists with this combined binding activity to be tested in humans. In October 2007, we released the results of a Phase IIb clinical trial of tezampanel, our most advanced product candidate. In this clinical trial, a single dose of tezampanel given by injection was statistically significant compared to placebo in treating acute migraine headache. This was the sixth Phase II trial in which tezampanel has been shown to have analgesic activity. We intend to hold an end of Phase II meeting with the United States Food and Drug Administration, or FDA, in the second half of 2008 to discuss the scope of a Phase III program for tezampanel in acute migraine. Assuming a successful outcome of this meeting, and additional financial resources, we plan to move forward with a Phase III program with tezampanel for the treatment of acute migraine. Also, in the second half of 2008 we plan to initiate a small, Phase II trial of tezampanel for the treatment of muscle spasticity and rigidity, a disorder commonly associated with spinal cord trauma, stroke, and multiple sclerosis. If initiated, this will be our first clinical trial of tezampanel in a non-pain indication.

NGX426 is an oral prodrug of tezampanel. In clinical trials, NGX426 has been shown to rapidly convert to tezampanel. We intend to complete our on-going Phase I maximum tolerated single dose clinical trial of NGX426 in the first half of 2008. Once this study is completed and the maximum tolerated dose has been identified, we intend to initiate a Phase I trial to evaluate multiple doses of NGX426 given to healthy adults. Also in the first half of 2008, we plan to initiate a clinical trial in healthy adults to determine the analgesic effect of NGX426.

Our muscarinic receptor agonist currently in clinical development is NGX267. We have completed three Phase I clinical trials evaluating single and multiple doses of NGX267 given to healthy adults. In March 2008, we initiated a Phase II clinical trial in patients to evaluate NGX267 for the treatment of xerostomia, or dry mouth, secondary to Sjogren's syndrome. Additionally, based on its mechanism of action, we believe NGX267 may also be developed to treat cognitive disorders such as Alzheimer's disease and cognitive impairment associated with schizophrenia, or CIAS. However, we have no plans to initiate any clinical trials of NGX267 in Alzheimer's disease or CIAS in 2008. NGX292, our other muscarinic receptor agonist, is structurally similar to NGX267 and is in preclinical development.

We also have two drug discovery programs, a gamma-secretase modulator, or GSM, program and an Alzheimer's disease genetics program. These programs are focused on discovering and validating novel small molecule compounds and molecular targets for Alzheimer's disease. Our genetics program is undertaken in collaboration with Eisai Co., Ltd., or Eisai.

In 2008, we will evaluate partnership opportunities for tezampanel, NGX426 and NGX267 to enable us to pursue the numerous commercial opportunities we have identified for these product candidates. This will be in addition to our on-going partnering activities involving our GSM program.

Our Clinical Development Opportunities

In 2008, the goal of our clinical development plan is to demonstrate the therapeutic versatility of tezampanel, NGX426 and NGX267. The following chart presents these three product candidates, select development opportunities, and current clinical status:

Product Candidate	Development Opportunity	Clinical Status
Ionotropic Glutamate Antagonists		
Tezampanel	Migraine	Phase IIb
Tezampanel	Muscle Spasticity and Rigidity	Phase I
NGX426	Migraine	Phase I
NGX426	Neuropathic Pain	Phase I
Muscarinic Receptor Agonists		
NGX267	Xerostomia	Phase II
NGX267	Alzheimer's disease	Phase I
NGX267	CIAS	Phase I

We currently have worldwide commercial rights to all of our product candidates in clinical development.

Tezampanel and NGX426 – Ionotropic Glutamate Receptor Antagonists, AMPA and Kainate Subtype

We in-licensed tezampanel and NGX426 from Eli Lilly & Company, or Eli Lilly, in 2003. Based on their mechanism of action as well as preclinical and clinical data, we believe these first-in-class product candidates have the potential to be effective across numerous indications in a wide range of therapeutic areas.

Mechanism of Action

Tezampanel and NGX426 are ionotropic glutamate receptor antagonists. These product candidates act as competitive antagonists of the AMPA and kainate subtype of ionotropic glutamate receptors. Glutamate receptors mediate the functioning of glutamate, an important excitatory neurotransmitter. While normal glutamate production is essential, excess glutamate production, either through injury or disease, can have a range of pathological effects. By acting at both the AMPA and kainate receptor site to competitively block the binding of glutamate, both tezampanel and NGX426 have the potential to treat a number of diseases and disorders. These include chronic pain, such as migraine and neuropathic pain, muscle spasticity and rigidity, thrombosis, epilepsy, Parkinson's disease and

a condition known as central sensitization, a persistent state of hypersensitivity to pain that is a core component of many pain conditions. In addition to the clinical data we have generated for tezampanel and NGX426 in migraine and neuropathic pain, these potential indications are supported by either preclinical data or scientific literature.

Migraine

Migraine is a chronic, intermittent pain condition often accompanied by central sensitization. The 2005 American Migraine Prevalence and Prevention study, sponsored by the National Headache Foundation, estimated that there are approximately 30 million people who suffer from migraines in the United States, with fewer than half that number seeking treatment. This study also confirmed that a large number of migraine sufferers are not getting adequate treatment or the relief they need, despite the number of products available to treat migraines. It has been more than a decade since the FDA has approved a migraine treatment with a new mechanism of action.

The medications most commonly used to treat acute migraine are triptans and ergotamines. These drugs constrict or narrow the blood vessels in the brain, heart and periphery. When the blood vessels in the brain are constricted, the blood flow is decreased thus relieving the throbbing pain associated with migraine.

An emerging theory is that the brain itself, not just the blood vessels, may cause or contribute to the migraine. Published data show that during a migraine, increased levels of glutamate activate AMPA and kainate receptors, resulting in the transmission of pain and, in many patients, the development of central sensitization. Tezampanel has been shown in preclinical studies to block the binding of glutamate to these receptors. In doing so, tezampanel relieves the migraine pain and may prevent or lessen the development of central sensitization without directly constricting the blood vessels. As a result, tezampanel may offer a significant safety advantage over drugs such as the triptans and ergotamines for patients with cardiovascular risk factors.

Migraine is often accompanied by central sensitization, which is characterized by allodynia and hyperalgesia. Allodynia is a painful response to a normally non-painful stimulus such as touch, sound, temperature, or light. Hyperalgesia is an exaggerated sensitivity to a normally painful stimulus. Recent data suggest that the triptans do not work as well in migraine patients who present with symptoms of central sensitization. In contrast, preclinical data show that tezampanel's analgesic activity is especially pronounced in the presence of central sensitization. Because of its positive effects in treating central sensitization, tezampanel may have an important role to play not only in treating the acute migraine pain, but also in preventing migraines by addressing the underlying cause.

Neuropathic Pain

Neuropathic pain is a complex, chronic pain condition in which the peripheral or central nervous system itself is damaged, dysfunctional or injured. The malfunctioning nerves become the cause of the pain, sending incorrect signals to pain centers. Because it is often difficult to recognize and determine the cause of the neuropathic pain, it is often under-treated. Some common causes of neuropathic pain include spinal or back injury or surgery, diabetes, HIV infection and herpes. A hallmark of neuropathic pain is central sensitization. The signs and symptoms of central sensitization in patients with neuropathic pain are similar to those in patients with migraine, namely allodynia and hyperalgesia. In a Phase II trial, tezampanel, given intravenously, was shown to relieve neuropathic pain and reduce the signs and symptoms of central sensitization.

Muscle Spasticity and Rigidity

Muscle spasticity and rigidity is a motor system disorder that results in an abnormal and painful increase in muscle contraction, or spasticity, and muscle tone, or rigidity. Spasticity and rigidity are usually caused by damage to the portion of the brain or spinal cord that controls voluntary movement and may occur in association with spinal cord injury, multiple sclerosis, cerebral palsy, brain damage, severe head injury, Parkinson's disease or other progressive motor system disorders. In a preclinical study in rats, tezampanel was shown to reduce both muscle spasticity and rigidity without any significant side effects.

Clinical Development Overview - Tezampanel

Using intravenous administration of tezampanel, proof of concept clinical testing has been successfully completed in migraine, low back pain, neuropathic pain via a capsaicin model, post-operative dental pain and pain from spinal cord trauma. In order to evaluate tezampanel given by injection, we completed a Phase I clinical trial and determined that a single dose of tezampanel given by injection was well tolerated at all doses up to and including 100 mg. To date tezampanel has been shown to be safe and well-tolerated in three Phase I and six Phase II clinical trials involving more than 450 patients and healthy adults.

In October 2007, we released results of a Phase IIb clinical trial of tezampanel, given by injection, in patients who suffer a single acute migraine attack. The clinical trial was a randomized, double-blind, placebo-controlled, parallel-group, single dose study to evaluate three doses of tezampanel, 40 mg, 70 mg, and 100 mg, compared to placebo. A total of 306 patients were enrolled in the trial, with approximately 75 subjects per treatment arm. This clinical trial demonstrated that the 40 mg dose of tezampanel demonstrated statistically significant improvement on headache pain response, the primary endpoint, at two hours post-dose compared to placebo. Two other doses of tezampanel, 70 mg and 100 mg, were evaluated and also demonstrated effects across a number of pain measurements although neither dose reached statistical significance on the primary endpoint. Although not powered to demonstrate statistical significance, improvement in key secondary measures at 40 mg were either statistically significant or trending when compared to placebo and corroborated the results for the primary endpoint of the study. In this trial, all three doses of tezampanel were well-tolerated. There were no serious or medically important adverse events reported. The most common adverse events associated with all doses of tezampanel, as well as placebo, were dry mouth, somnolence, dizziness, injection site burning and injection site pain. Injection site burning and injection site pain were more frequently reported in the placebo group. For tezampanel, the overall incidence of reported adverse events was dose related with the lowest incidence at the 40 mg dose.

In February 2008 we released results of a multiple dose clinical trial of tezampanel, given by injection. The Phase I double-blind, placebo-controlled trial enrolled 30 normal healthy male and female adults. The data from this trial show that tezampanel given by injection once-daily for four consecutive days at doses of 40 mg, 70 mg and 100 mg was safe and well-tolerated. There were no discontinuations from the study and reported adverse events were generally mild and transient. These Phase I results support our continued development of tezampanel across a variety of chronic conditions.

We intend to hold an end of Phase II meeting with the FDA in the second half of 2008 to discuss the scope of a Phase III program for tezampanel in acute migraine. Assuming a successful outcome of this meeting, and additional financial resources, we plan to move forward with a Phase III program with tezampanel for the treatment of acute migraine. In addition, in the second half of 2008 we intend to initiate a Phase II clinical trial of tezampanel in muscle spasticity and rigidity, which will be our first non-pain indication evaluated in the clinic.

Clinical Development Overview – NGX426

The results of our first Phase I single dose clinical trial of NGX426, given orally, demonstrated that NGX426 was well-tolerated and rapidly converted to tezampanel at 10 mg, 20 mg, and 30 mg. In our on-going second Phase I clinical trial we intend to identify the maximum tolerated single dose of NGX426 when given to healthy adults. This clinical trial is designed as a randomized, double-blind, placebo-controlled study in which healthy adults will receive placebo or an escalating single dose of NGX426. We have completed dosing of subjects up to 150 mg and we will continue to dose until we reach either the maximum tolerated dose or up to a maximum of 210 mg. We expect to report results of this clinical trial in the second half of 2008.

In the first half of 2008 we plan to evaluate the analgesic effect of NGX426 in healthy adults. The purpose of this trial is to show that tezampanel, when given orally as NGX426, maintains its analgesic activity. Additionally, in the second half of 2008 we intend to initiate a Phase I multiple dose trial of NGX426 in healthy adults.

NGX267 and NGX292 – Muscarinic Receptor Agonists

We in-licensed NGX267 and NGX292 from Life Science Research Israel, or LSRI, in 2004. NGX267 is currently in Phase II clinical development for xerostomia secondary to Sjogren's syndrome. NGX292 is structurally similar to NGX267 and is currently in preclinical testing.

Mechanism of Action

There is extensive data validating the rationale for using muscarinic receptor agonists in the symptomatic treatment of cognitive impairment. This rationale, based on the cholinergic hypothesis of learning and memory, links disturbances in acetylcholine function with changes in cognition. Many of the currently approved treatments for symptomatic improvement of Alzheimer's disease are based on this cholinergic hypothesis. NGX267, a partial muscarinic receptor agonist with functionally specific M1 receptor activity, mimics the action of acetylcholine by stimulating the M1 receptors. In animal models NGX267 has been shown to be effective in improving cognitive deficits in learning and memory.

In addition to improving cognition, a second mechanism of action, the reduction of $A\beta_{42}$, also supported by preclinical data, suggests that NGX267 may be effective as a treatment to delay the onset or to slow the progression of Alzheimer's disease. It has also long been hypothesized that the cause of Alzheimer's disease lies in the build up of protein deposits, referred to as amyloid plaques, in the brain. The plaques are largely comprised of aggregations of a peptide referred to as amyloid ß, or Aß, peptide. A specific Aß peptide, $A\beta_{42}$, is thought to play a significant role in the cause of Alzheimer's disease. In transgenic mice, a specific testing model where the animals have characteristics of Alzheimer's disease, NGX267 has been shown to reduce $A\beta_{42}$ and to prevent the formation of amyloid plaques. NGX292 has demonstrated a biological profile similar to the profile of NGX267.

Xerostomia

Xerostomia, or dry mouth, may be caused by an underlying disease such as Sjogren's syndrome or may also result from medical treatments such as radiation therapy to the head or neck. In evaluating NGX267 as a treatment for xerostomia, we are leveraging a known biological effect of muscarinic receptor agonists. Similar to acetylcholine, when muscarinic agonists stimulate the M1 receptor, they produce cholinergically-mediated side effects such as salivation, sweating, and tearing. In two Phase I trials, NGX267 has been shown to stimulate the M1 receptor and, depending on dose, produce these side effects. We believe that we have identified a therapeutic dose range for NGX267 that will alleviate complaints of dry mouth without producing unpleasant or intolerable side effects such as excessive sweating. There are currently only two prescription medications for the treatment of xerostomia. Both of these medications have side effects and may not be suitable for all sufferers of dry mouth.

Alzheimer's Disease and CIAS

There are currently no approved products to treat the underlying cause of Alzheimer's disease or to modify the progression of the disease. All of the approved products, as well as many of the compounds under development for Alzheimer's disease, treat or intend to treat only the signs and symptoms of Alzheimer's disease. With regard to CIAS, an emerging approach to improving the functional ability of patients with schizophrenia is to develop therapies that will improve their cognitive impairment. There are no current approved therapies for CIAS. Because impairments in memory and learning have been demonstrated in both Alzheimer's disease patients and schizophrenic patients, we believe that there is a strong rationale to develop NGX267 as a treatment for Alzheimer's disease as well as CIAS.

Clinical Development Status

We have completed three Phase I clinical trials of NGX267. In the first trial, we identified the maximum tolerated single dose of NGX267 as 35 mg in healthy young adult males. All doses up to and including 35 mg were well tolerated by the subjects and there were no reports of clinically significant adverse events. In the second trial, we confirmed the safety and tolerability of a single dose of NGX267 up to 15 mg in a healthy elderly population. In

addition, at 15 mg, statistically significant increases in salivary flow were demonstrated for NGX267 in comparison to placebo in the study.

We have also completed a multiple dose Phase I clinical trial of NGX267 in healthy adult males. Subjects received either a 10, 20 30 or 35 mg dose of NGX267 once-daily for each of four consecutive days. NGX267 was safe and well-tolerated in the trial with no clinically significant adverse events. In the study, statistically significant increases in peak and total salivary flow were demonstrated for NGX267 in comparison to placebo and these effects were maintained over four days of dosing.

In March 2008 we initiated a Phase II clinical trial of NGX267 in patients suffering from xerostomia secondary to Sjogren's syndrome. The clinical trial is a randomized, double-blind, placebo-controlled design and will enroll 24 patients. Using a cross-over design, each patient will receive a once-daily oral dose of placebo, 10 mg, 15 mg and 20 mg of NGX267 in four distinct treatment periods. We have no plans to initiate any clinical trials of NGX267 in Alzheimer's disease or CIAS in 2008.

Our Drug Discovery Programs

We have two drug discovery programs, a gamma-secretase modulator program and an Alzheimer's disease genetics program. These programs are focused on discovering and validating novel small molecule compounds and molecular targets for Alzheimer's disease. Our genetics program is undertaken in collaboration with Eisai.

Gamma-secretase Modulator Program

Our approach to Alzheimer's disease drug discovery is firmly rooted in the amyloid hypothesis. First generation approaches to lowering $A\beta_{42}$ focused on inhibiting, as opposed to modulating, the activity of a large, complex and essential enzyme called gamma-secretase that is involved in the production of $A\beta_{42}$. Gamma-secretase inhibitors have been associated with side effects presumably because they completely block the functioning of the enzyme towards other biologically important substrates.

We have identified two distinct series of second generation compounds that modulate the gamma-secretase enzyme as opposed to inhibiting it. These gamma-secretase modulators, or GSMs, reduce the brain levels of $A\beta_{42}$ while maintaining the overall balance of Aß in the brain. They do this by influencing the enzyme to make shorter, less toxic Aß peptides at the expense of the longer, toxic $A\beta_{42}$ peptide. Because GSM compounds allow the gamma-secretase enzyme to perform its normal functions on other substrates, it is believed they will likely not have some of the side effects associated with the first generation compounds that fully inhibited enzyme function.

Our GSM compounds are small molecules that have been shown to penetrate the blood brain barrier upon chronic oral dosing in rodents. We believe that in the brain, they preferentially lower $A\beta_{42}$ levels by modulation of gamma-secretase.

Alzheimer's Disease Genetics Program

Since its inception in 2001, our Alzheimer's disease genetics program has been a shared research effort between us and Eisai. Our genetics research program integrates human genetic mapping, genomics, and bioinformatics. The goals of our genetics research program are two-fold: to provide new targets for drug discovery, and to facilitate methods for reliably predicting and diagnosing Alzheimer's disease.

Recent data suggests that up to 80% of cases of Alzheimer's disease have a genetic component. In 2005, the scope of our Alzheimer's disease genetics program was significantly expanded to include a comprehensive and state-of-the-art screening of over 400 families, comprising more than 1,600 participants with late-onset Alzheimer's disease. The resulting whole-genome family-based association screen is expected to identify up to 95% of the genetic variants and mutations conferring risk or protection for Alzheimer's disease. Once completed, this screening may enhance our ability to identify novel pathways involved in the cause and course of Alzheimer's disease and to strengthen our pipeline with new targets for drug discovery.

Strategic Alliance, License and Other Commercial Agreements

Drug development is long and costly and we recognize that we will need strategic partners to maximize the potential of one or more of our product candidates. Our goal is to strike a balance between advancing product development at our expense and partnering with third parties at key points along the development path. Overall, our strategy is to reach key milestones with our product candidates before entering into strategic alliances. We believe that, in this way, we can retain significant commercial value in the product candidates while obtaining strategic and financial assistance to advance our programs. We speak to prospective partners on a regular basis, understanding that discussions and ultimately mutually beneficial strategic alliances are the result of developing on-going relationships. In 2008 we will evaluate partnership opportunities for tezampanel, NGX426 and NGX267 to enable us to pursue the numerous commercial opportunities we have identified for these product candidates. This will be in addition to our on-going partnering activities involving our GSM program.

In addition to strategic development alliances, our alliance strategy also includes entering into agreements or partnerships that provide pharmaceutical drug developers with access to our drug discovery technologies. We currently have one such strategic alliance with Eisai for our Alzheimer's disease genetics research program.

Since inception, our revenue has been derived from our strategic alliances. For the fiscal year ended December 31, 2007, 100% of our revenue was derived from our agreements with Eisai.

Eisai

Since 2001, we have had an on-going relationship with Eisai with respect to our Alzheimer's disease drug and target discovery programs. In October 2005, we entered into a cooperation agreement with Eisai to continue to work together on our Alzheimer's disease genetics research program that focuses on the discovery of genes responsible for late onset Alzheimer's disease. The agreement had an initial two-year term that Eisai extended for an additional 12 months. This agreement will conclude on October 1, 2008. Under the agreement, Eisai is funding our work regarding the genetics program and Eisai has exclusive time-limited rights of first negotiation and refusal for gene targets discovered and validated in the course of the genetics program. The total payments we may receive under this agreement are approximately $15.0 million, which includes research support and a cash payment for the right of first negotiation and refusal. As of March 15, 2008 we have received approximately $13.0 million from Eisai pursuant to this agreement. We also had a collaboration agreement with Eisai regarding our GSM program that expired on February 29, 2008.

Eli Lilly

In 2003, we entered into a development and licensing agreement with Eli Lilly to obtain an exclusive license to Eli Lilly's ionotropic glutamate receptor antagonist asset tezampanel, and its prodrug NGX426. We paid Eli Lilly an up-front license fee of $6.0 million under the agreement. If specified development, regulatory and commercial milestones are achieved, we are obligated to make milestone payments to Eli Lilly. We are also obligated to pay royalties to Eli Lilly on any sales of tezampanel and NGX426. We are required to use commercially reasonable efforts to develop and commercialize the product candidates subject to the agreement, including use of commercially reasonable efforts to achieve specified development events within specified timeframes.

The term of the development and licensing agreement will continue until all royalty payment obligations have expired on a country-by-country basis, unless the agreement is earlier terminated. Under certain termination circumstances, all of the rights granted to us under the agreement will revert to Eli Lilly.

Life Science Research Israel (LSRI)

In 2004, we entered into an agreement with LSRI to obtain an exclusive license to their muscarinic receptor agonist assets NGX267 and NGX292. No up-front license fee was paid. For the first two years of the agreement, we provided specified amounts of research funding to LSRI. Through December 31, 2007 we paid LSRI total milestone payments of approximately $2.2 million. If additional specified development, regulatory and commercial milestones are achieved, we are obligated to make milestone payments to LSRI which may total up to an additional

$18.3 million. We are also obligated to pay royalties to LSRI on sales of NGX267 and NGX292 and to pay LSRI a percentage of specified payments we receive upon sublicensing rights to either compound, subject to a minimum amount payable to LSRI for the first sublicense. If we sublicense rights to a compound after a specified point in development of the compound, LSRI will select the level of royalty and sublicense payments from among the alternatives provided in the agreement. We are required to use commercially reasonable efforts to develop and commercialize the product candidates subject to the agreement, including use of commercially reasonable efforts to achieve specified development events within specified timeframes.

The term of the agreement will continue on a country-by-country basis until the later of a specified number of years from the date of first commercial sale of a product in such country or the expiration in such country of the last-to-expire patent covering a product candidate licensed under the agreement, provided, however, that in the event that generic competition occurs in such country and results in a loss of a certain percentage of the market share for such product then the royalty payments will terminate in such country.

University of Iowa Research Foundation

We have a license agreement with the University of Iowa Research Foundation, or UIRF, pursuant to which UIRF has granted us an exclusive United States license to certain patents and patent applications relating to spinal administration of tezampanel. Under the terms of the agreement we have the right to sublicense our license.

If we achieve specified regulatory and patent-related milestones, we will be obligated to make milestone payments to UIRF which may total up to $0.4 million. We must also pay UIRF an annual license maintenance fee which may be reduced by the amount of other payments made by us to UIRF under the agreement. We are also obligated to pay royalties to UIRF on any sales of tezampanel using the licensed patent rights and to pay UIRF a percentage of specified payments we receive upon sublicensing rights to the licensed patent rights. We are required to use commercially reasonable efforts to commercialize products using the licensed patent rights.

This agreement will continue until the expiration of the last-to-expire of the licensed patents and patent applications unless earlier terminated.

Johnson & Johnson Development Corporation

On March 24, 2008, we entered into a mutual agreement with Johnson & Johnson Development Corporation, or JJDC, terminating the letter agreement between the parties dated August 26, 2004 that granted JJDC an exclusive right of first negotiation with us regarding rights or products related to our M1 agonist program. As a result of the termination of the original agreement, the rights and obligations of the parties, including but not limited to the right of first negotiation granted to JJDC by us with respect to rights or products related to our M1 agonist program have terminated.

Competition

We and our strategic alliance partners face intense competition. We are in competition with fully integrated pharmaceutical companies, smaller companies that may be collaborating with larger pharmaceutical companies, academic institutions, government agencies and other public and private research organizations. Many of these competitors have prescription products for chronic pain, such as migraine and neuropathic pain, muscle spasticity and rigidity, xerostomia and Alzheimer's disease already approved by the FDA or they are pursuing the same or similar approaches to those which constitute our discovery and development platforms and operate larger discovery and development programs in these fields than ours. We believe that competition for the migraine, neuropathic pain, muscle spasticity and rigidity, xerostomia, Alzheimer's disease and CIAS products that we and any future strategic alliance partners may develop will come from companies that are conducting research, engaging in clinical development, or currently marketing and selling therapeutics to treat these conditions. These competitors include the pharmaceutical industry's leading companies.

For example, triptans are the most commonly prescribed drugs for the treatment of moderate to severe migraine. There are seven triptans approved for use and Imitrex®, marketed by GlaxoSmithKline, dominates the market. Other triptans are: Zomig®, Maxalt®, Amerge®, Frova™, Axert®, and Relpax®. According to PhRMA's 2006 report, *Medicines in Development for Neurologic Disorders,* there are more than 30 companies seeking to

develop compounds to treat migraine and pain disorders or to obtain additional indications to broaden the use of currently approved pain relieving prescription medications. This list includes most of the large pharmaceutical companies such as Abbott Laboratories, AstraZeneca, Eisai, Elan, Eli Lilly, GlaxoSmithKline, Merck, Pfizer, and Wyeth Pharmaceuticals as well as small and mid-sized biotechnology companies.

There are a variety of approaches to treating muscle spasticity and rigidity including physical therapy, medications and surgery. The most commonly prescribed medications are oral muscle relaxants such as Lioresal® (Novartis), Dantrium® (Procter and Gamble), Zanaflex® (Acorda) and Valium® (Roche). Often a combination of these medications may be prescribed to achieve control of spasticity. While effective, some of these medications can cause drowsiness which may limit their use in some patients. In addition, there has been some recent clinical studies showing that gabapentin, a drug used to treat neuropathic pain, and Botox® (Allergan) may be effective in treating spastic muscles.

In the neuropathic pain market, we would compete with companies such as Pfizer, marketing Neurontin and Lyrica®, and Eli Lilly, marketing Cymbalta® in addition to opiods approved for treating neuropathic pain, off-label uses of products to treat neuropathic pain and generics products. Given the size of the neuropathic pain market, approximately $3.5 billion in 2006 and expected to double by 2016, it is likely that most of the large pharmaceutical companies as well as many biotechnology companies will look to develop compounds to treat neuropathic pain.

In the xerostomia market, Salagen®, marketed by MGI Pharma, and Evoxac®, marketed by Daiichi Pharmaceutical Corporation, are the only two prescription medications available to treat xerostomia. Each of these compounds are muscarinic receptor agonists. In addition, there are many over the counter medications that are used to treat dry mouth.

Despite limited effectiveness, acetylcholinesterase inhibitors are the mainstay treatment option for Alzheimer's disease. Four acetylcholinesterase inhibitors are approved for the symptomatic improvement of mild to moderate Alzheimer's disease: Aricept, the market leader, Exelon, Razadyne (formally Reminyl), and Cognex. One additional product, Namenda, a compound with a different mechanism of action, is approved for symptomatic improvement in patients with moderate to severe Alzheimer's disease. According to PhRMA's 2006 report, *Medicines in Development for Neurologic Disorders,* there are more than 25 companies, among others, seeking to develop compounds to treat Alzheimer's disease or to obtain additional indications to broaden the use of currently approved treatments for Alzheimer's disease. This list includes most of the large pharmaceutical companies such as Abbott Laboratories, AstraZeneca, Eisai, Elan, Eli Lilly, GlaxoSmithKline, Johnson & Johnson, Merck, Novartis, Pfizer, and Wyeth Pharmaceuticals as well as small and mid-sized biotechnology companies.

There are no FDA approved drugs for the treatment of CIAS. Through various market reports and company announcements, we believe that there are more than 20 companies seeking to develop compounds to treat cognitive disorders in general, often without any specific reference to CIAS. This list includes most of the large pharmaceutical companies such as Eli Lilly, GlaxoSmithKline, Johnson & Johnson, Novartis, and Roche as well as small and mid-sized biotechnology companies.

Many of our competitors, either alone or together with their collaborative partners, have substantially greater financial resources than us, as well as greater experience in developing pharmaceutical products, undertaking preclinical testing and human clinical trials, obtaining FDA and other regulatory approvals of products, formulating and manufacturing pharmaceutical products, and launching, marketing, distributing and selling products.

Proprietary Rights

Patent Applications

Our policy is to pursue patents, both those generated internally and those licensed from third parties, pursue trademarks, maintain trade secrets and use other means to protect our technology, inventions and improvements that are commercially important to the development of our business.

Our success will depend significantly on our ability to:

- obtain and maintain patent and other proprietary protection for the technology, inventions and improvements we considers important to our business;

- defend our patents;
- preserve the confidentiality of our trade secrets; and
- operate without infringing the patents and proprietary rights of third parties.

As of December 31, 2007, we controlled approximately 279 patents and patent applications worldwide. Of these, 55 pertain to tezampanel and/or NGX426 (including 13 issued U.S. patents), 53 pertain to NGX267 and/or NGX292 (including 3 issued U.S. patents), 76 pertain to phenserine and/or Posiphen (including 3 issued U.S. patents), 40 pertain to bisnorcymserine (including 2 issued U.S. patents), and 19 pertain to our GSM program (including 1 issued U.S. patent). Issued patents, and patents that may issue from these pending applications, would expire between 2010 and 2028. In accordance with the Hatch-Waxman Act in the United States, and corresponding legislation in certain foreign countries, patents covering our drug products may be eligible for up to five years of patent term restoration.

Trademarks, Trade Secrets and Other Proprietary Information

We own the TORREYPINES THERAPEUTICS & Design trademark, which is registered in the U.S. and in Japan, Canada, and the European Community. We also own our Tree Logo trademark, which is registered in the U.S. Additionally, we own the POSIPHEN trademark, which is registered or pending in approximately 25 countries.

To protect our trade secrets and proprietary information, we require our employees, scientific advisors, consultants and collaborators to execute confidentiality agreements when they begin to work with us. Additionally, we require our employees, scientific advisors and consultants to assign to us any inventions developed as a result of their relationship with us. While these agreements provide a certain degree of protection of our proprietary information and internally developed technologies, they do not provide protection in the event of unauthorized disclosure of such information.

Manufacturing and Supply

We currently have no manufacturing capabilities and rely, or will rely, on third parties for the preclinical or clinical supplies of each of our product candidates. We do not currently have relationships for redundant supply or a second source for any of our product candidates. However, we believe that there are alternate sources of supply that can satisfy our preclinical and clinical trial requirements without significant delay or material additional costs.

Because our product candidates are all in an early stage of development, there is no commercial process developed for the synthesis of active pharmaceutical ingredient, or API, for any of our product candidates. In addition, we have not identified final market formulations and delivery systems for any of our product candidates. We must rely upon third party vendors to achieve a final commercial process for API and we must obtain FDA approval for both the API process and the drug product. Our reliance on third party vendors may result in delays, significant and unanticipated costs, or yield lower than anticipated amounts of product.

Commercial quantities of any products we seek to develop will have to be manufactured in facilities and by processes that comply with the FDA and other regulations for current good manufacturing practices, or cGMPs. We plan to rely on third parties to manufacture commercial quantities of any products we successfully develop. We believe that there are several manufacturing sources available to us on commercially reasonable terms to meet our clinical requirements as well as any commercial production requirements.

Sales and Marketing

We currently have no marketing, sales or distribution capabilities. We may establish a small, specialty sales and marketing capability in the United States if and when we obtain regulatory approval for tezampanel for the treatment of migraine.

To market tezampanel outside of the United States, or if and when NGX426 obtains regulatory approval, or in situations or markets where a more favorable return may be realized through licensing commercial rights to a third party, we may license a portion or all of our commercial rights in a territory to a third party in exchange for one or more of the following: up-front payments, research funding, development funding, milestone payments and royalties on product sales.

Given the early stage of development, we do not have a sales and marketing plan for our xerostomia, CIAS or Alzheimer's disease product candidates. In order to participate in the commercialization of any of our products, we must develop these capabilities on our own or in collaboration with third parties. Alternatively, we may also choose to hire a third party to provide sales personnel instead of developing our own staff.

Government Regulation

FDA Requirements for New Drug Compounds

The research, testing, manufacture and marketing of pharmaceutical products are extensively regulated by numerous governmental authorities in the United States and other countries. In the United States, pharmaceutical products are subject to rigorous regulation by the FDA. The Federal Food, Drug, and Cosmetic Act, and other federal and state statutes and regulations, govern, among other things, the research, development, testing, manufacture, storage, recordkeeping, labeling, promotion and marketing and distribution of pharmaceutical products. Failure to comply with applicable regulatory requirements may subject a company to a variety of administrative or judicial sanctions, including:

- suspension of review or refusal to approve pending applications;
- product seizures;
- recalls;
- withdrawal of product approvals;
- restrictions on, or prohibitions against, marketing its products;
- fines;
- restrictions on importation of its products;
- injunctions;
- debarment; and
- civil and criminal penalties.

The steps ordinarily required before a new pharmaceutical product may be marketed in the United States include:

- preclinical laboratory tests, animal studies and formulation development according to good laboratory practices, or GLPs;
- submission to the FDA of an investigational new drug application, or IND, which must become effective before clinical, or human, testing may commence;
- adequate and well-controlled clinical trials to establish the safety and efficacy of the product for each indication for which FDA approval is sought according to good clinical practices;
- submission to the FDA of a new drug application, or NDA;
- satisfactory completion of an FDA Advisory Committee review, if applicable;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the product is produced to assess compliance with cGMP; and
- FDA review and approval of the NDA.

Satisfaction of FDA pre-market approval requirements typically takes several years, and the actual time required may vary substantially based upon the type, complexity and novelty of the product or disease. Government regulation may delay or prevent marketing of potential candidates for a considerable period of time and impose costly procedures upon a manufacturer's activities. Success in early stage clinical trials does not assure success in later stage clinical trials. Data obtained from clinical development is not always conclusive and may be susceptible to varying interpretations that could delay, limit or prevent regulatory approval. Even if a product receives

regulatory approval, later discovery of previously unknown problems with a product may result in restrictions on the product or even complete withdrawal of the product from the market.

Preclinical tests include laboratory evaluation of product chemistry and formulation, as well as toxicology studies to assess the safety of the product. The conduct of the preclinical tests and formulation of compounds for testing must comply with federal regulations and requirements. The results of preclinical testing are then submitted to the FDA as part of an IND.

An IND, which must be approved before human clinical trials may begin, will automatically become effective 30 days after the FDA receives it, unless the FDA raises concerns or questions about the IND. If the FDA has questions or concerns, they must be resolved to the satisfaction of the FDA before initial clinical testing can begin. In addition, the FDA may, at any time, impose a clinical hold on on-going clinical trials. If the FDA imposes a clinical hold, clinical trials cannot commence or recommence without FDA authorization and then only under terms authorized by the FDA. In some instances, the IND process can result in substantial delay and additional expense.

Clinical trials involve the administration of the investigational drug to healthy volunteers or patients under the supervision of a qualified investigator. Clinical trials must be conducted in compliance with federal regulations and requirements, under protocols detailing the objectives of the trial, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated, among other things. Each protocol involving testing in the United States must be submitted to the FDA as part of the IND. In addition, an institutional review board, or IRB, at each site at which the clinical trial is conducted must approve the protocols, protocol amendments and informed consent documents for patients. All clinical trial participants must provide their informed consent in writing.

Clinical trials to support an NDA for marketing approval are typically conducted in three sequential phases, but the phases may overlap. In Phase I clinical trials, the initial introduction of the drug into healthy human subjects or patients, the drug is tested to assess safety, including side effects associated with increasing doses, metabolism, pharmacokinetics and pharmacological actions. Phase II clinical trials usually involve trials in a limited patient population, usually several hundred people, to determine dosage tolerance and optimum dosage, identify possible adverse effects and safety risks, and provide preliminary support for the efficacy of the drug in the indication being studied. In certain patient populations, accelerated approval is available based on Phase II clinical trial data. A Phase IIa clinical trial is typically designed to obtain proof-of-concept data and determine if the product candidate has an effect on a limited number of patients. A clinical trial designed to generate efficacy data but that is not expected to satisfy FDA criteria for NDA approval is sometimes referred to as a Phase IIb clinical trial. If a compound demonstrates evidence of effectiveness and an acceptable safety profile in Phase II clinical trials, Phase III clinical trials are undertaken to further evaluate clinical safety and efficacy within an expanded patient population, usually several hundred to several thousand subjects, typically at geographically dispersed clinical trial sites. Phase I, Phase II or Phase III clinical trials of any product candidate may not be completed successfully within any specified time period, if at all.

After successful completion of the required clinical testing, generally an NDA is prepared and submitted to the FDA. FDA approval of the NDA is required before marketing of the product may begin in the United States. The NDA must include the results of extensive preclinical studies and clinical trials and other detailed information, including, information relating to the product's pharmacology, chemistry, manufacture, and controls. The cost of preparing and submitting an NDA is substantial. Under federal law, the submission of NDAs are generally subject to substantial application user fees, currently exceeding $750,000, and the sponsor and/or manufacturer under an approved application are also subject to annual product and establishment user fees, currently exceeding $40,000 per product and $250,000 per establishment. Additional user fees exceeding $300,000 apply for NDA supplements containing clinical data. Fees are waived for the first pre-market application from companies with gross sales of less than $30 million. These fees are typically increased annually.

The FDA has 60 days from its receipt of an NDA to determine whether the application will be accepted for filing based on the agency's threshold determination that the NDA is sufficiently complete to permit substantive review. Once the submission is accepted for filing, the FDA begins an in-depth review of the NDA. Under federal law, the FDA has agreed to certain performance.goals in the review of most NDAs. Applications for non-priority drug products are generally reviewed within 12 months. Applications for priority drugs, such as those that address an unmet medical need, are generally reviewed within 6 months. The review process can be significantly extended

by FDA requests for additional information or clarification regarding information already provided in the submission.

The FDA may also refer applications for novel drug products or drug products that present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved. The FDA is not bound by the recommendation of an advisory committee. Also, before approving an NDA, the FDA will inspect the facility or the facilities at which the product is manufactured to assure that the facilities, methods and controls are adequate to preserve the product's identity, strength, quality and purity.

If FDA evaluations of the NDA and the manufacturing facilities are favorable, the FDA may issue an approval letter, or, in some cases, an approvable letter followed by an approval letter. An approvable letter generally contains a statement of specific conditions that must be met in order to secure final approval of the NDA. If and when those conditions have been met to the FDA's satisfaction, the FDA will typically issue an approval letter. An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications. If the FDA's evaluation of the NDA submission is not favorable, the FDA may refuse to approve the NDA or issue a not approvable letter. A not approvable letter outlines the deficiencies in the submission and may require additional testing or information in order for the FDA to reconsider the application. Even with submission of this additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval. With limited exceptions, the FDA may withhold approval of an NDA regardless of prior advice it may have provided or commitments it may have made to the sponsor.

As a condition of NDA approval, the FDA may require post-approval testing and surveillance to monitor the drug's safety or efficacy and may impose other conditions, including labeling restrictions which can materially impact the potential market and profitability of the drug. In addition, a product approval may be withdrawn if compliance with regulatory standards is not maintained or problems are identified following initial marketing.

The FDA has various programs, including FastTrack designation, accelerated approval and priority review that are intended to expedite or simplify the process for reviewing certain drugs. Specifically, drug products that are intended for the treatment of serious or life-threatening conditions and demonstrate the potential to address unmet medical needs may be eligible for FastTrack designation and/or accelerated approval. Products may qualify for accelerated approval based on adequate and well-controlled Phase II clinical trial results that establish that the product has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit. As a condition of approval, the FDA may require that a sponsor of a drug product receiving FastTrack or accelerated approval perform post-marketing clinical trials. In addition, if a drug product would provide a significant improvement compared to marketed products, it may be eligible to receive priority review, which shortens the time in which the FDA acts on the sponsor's application. Even if a drug product qualifies for one or more of these programs, the FDA may later decide that the drug no longer meets the conditions for qualification or the time period for FDA review or approval will not be shortened.

After an NDA is approved, the approved drug will be subject to certain post-approval requirements, including a requirement to report adverse events and to submit annual reports. In addition, a supplemental NDA may be required for approval of changes to the originally approved indication, prescribing information, product formulation, and manufacturing and testing requirements. Following approval, drug products are required to be manufactured and tested for compliance with NDA and/or compendia specifications prior to release for commercial distributions. The manufacture and testing must be performed in approved manufacturing and testing sites that comply with cGMP requirements and are subject to FDA inspection authority.

Approved drugs must be promoted in a manner that is consistent with their terms and conditions of approval, and that is not false or misleading. In addition, the FDA requires substantiation of any claims of superiority of one product over another, generally through adequate and well-controlled head-to-head clinical trials. To the extent that market acceptance of our product candidates may depend on their superiority over existing therapies, any restriction on our ability to advertise or otherwise promote claims of superiority, or requirements to conduct additional expensive clinical trials to provide proof of such claims, could negatively affect the sales of our products and/or our expenses.

Once an NDA is approved, the product covered thereby becomes a "listed drug" which can, in turn, be cited by potential competitors in support of approval of an abbreviated new drug application, or ANDA. An ANDA provides for marketing of a drug product that has the same active ingredients, strength, dosage form, route of administration and conditions of use, and has been shown through bioequivalence testing to be therapeutically equivalent to the listed drug. Generally, an ANDA applicant is required only to conduct bioequivalence testing, and is not required to conduct or submit results of preclinical or clinical tests to prove the safety or efficacy of its drug product. Drugs approved in this way, commonly referred to as "generic equivalents" to the listed drug, are listed in the FDA's Approved Drug Products with Therapeutic Equivalence Evaluations, which is referred to as the Orange Book, and can often be substituted by pharmacists under prescriptions written for the original listed drug.

Federal law provides for a period of three years of exclusivity following approval of a listed drug that contains previously approved active ingredients but is approved in a new dosage, dosage form, indication or route of administration or combination, if one of the clinical trials conducted was essential to the approval of the application and was conducted or sponsored by the applicant. During this three year period, the FDA cannot grant effective approval of an ANDA based on that listed drug. Federal law also provides a period of exclusivity for five years following the approval of a drug containing a new chemical entity, except that an ANDA may be submitted after four years following the approval of the original product if the ANDA challenges a listed patent as invalid or not infringed.

Applicants submitting an ANDA are required to make a certification with regard to any patents listed for an innovative drug, stating that either there are no patents listed in the Orange Book for the innovative drug, any patents listed have expired, the date on which the patents will expire, or that the patents listed are invalid, unenforceable, or will not be infringed by the manufacture, use, or sale of the drug for which the ANDA is submitted. If an ANDA applicant certifies that it believes all listed patents are invalid or not infringed, it is required to provide notice of its ANDA submission and certification to the NDA sponsor and the patent owner. If the patent owner, its representatives, or the approved application holder, who is an exclusive patent licensee, then initiates a suit for patent infringement against the ANDA sponsor within 45 days of receipt of the notice, the FDA cannot grant effective approval of the ANDA until either 30 months have passed or there has been a court decision holding that the patents in question are invalid or not infringed. On the other hand, if a suit for patent infringement is not initiated within the 45 days, the ANDA applicant may bring a declaratory judgment action.

If the ANDA applicant certifies that it does not intend to market its generic product before some or all listed patents on the listed drug expire, then the FDA cannot grant effective approval of the ANDA until those patents expire. The first ANDA submitting a substantially complete application certifying that all listed patents for a particular product are invalid or not infringed may qualify for a period of 180 days of exclusivity against other generics, which begins to run after a final court decision of invalidity or non-infringement or after the applicant begins marketing its product, whichever occurs first, during which time subsequently submitted ANDAs cannot be granted effective approval. If more than one applicant files a substantially complete ANDA on the same day, each such first applicant will be entitled to share the 180-day exclusivity period, but there will only be one such period, beginning on the date of the first marketing by any of the first applicants.

FDA also imposes a number of complex requirements and restrictions on entities that advertise and promote prescription drugs, which include, among others, standards for and regulations of print and in-person promotion, product sampling, direct-to-consumer advertising, off-label promotion, industry sponsored scientific and educational activities, and promotional activities involving the Internet. The FDA has very broad enforcement authority under the Federal Food, Drug and Cosmetic Act, and failure to abide by FDA requirements can result in penalties and other enforcement actions, including the issuance of warning letters or other letters objecting to violations and directing that deviations from FDA standards be corrected, total or partial suspension of production, and state and federal civil and criminal investigations and prosecutions.

From time to time, legislation is drafted and introduced in Congress that could significantly change the statutory provisions governing the approval, manufacturing and marketing of drug products. In addition, FDA regulations and guidance are often revised or reinterpreted by the agency or the courts in ways that may significantly affect our business and products candidates. It is impossible to predict whether legislative changes will be enacted, or FDA regulations, guidance or interpretations changed, or what the impact of such changes, if any, may be.

Foreign Regulation of New Drug Compounds

Approval of a product by comparable regulatory authorities may be necessary in foreign countries prior to the commencement of marketing of the product in those countries, whether or not FDA approval has been obtained. In general, each country has its own procedures and requirements, many of which are time consuming, expensive, and may require additional studies prior to marketing the product. Also, the time required may differ from that required for FDA approval. Thus, there can be substantial delays in obtaining required approvals from foreign regulatory authorities after the relevant applications are filed.

In Europe, marketing authorizations may be granted at a centralized level, a decentralized level or a national level. The centralized procedure provides a single marketing authorization valid in all European Union member states, and is mandatory for the approval of most medicinal products, including certain biotechnology products. The decentralized procedure allows an applicant to seek market authorizations in several designated member states at once, and a national market authorization provides an authorization valid in only one member state. All medicinal products that are not subject to the centralized procedure and which have received at least one marketing authorization in another member state may receive additional marketing authorizations from other member states through a mutual recognition procedure.

Reimbursement and Pricing

In the United States and elsewhere, sales of pharmaceutical products depend in significant part on the availability of reimbursement to the consumer from third-party payors, such as government and private insurance plans. Third-party payors are increasingly challenging the prices charged for medical products and services. It will be time-consuming and expensive for us to go through the process of seeking reimbursement from Medicare and private payors. Our products may not be considered cost effective, and coverage and reimbursement may not be available or sufficient to allow us to sell our products on a competitive and profitable basis.

In many foreign markets, including the countries in the European Union, pricing of pharmaceutical products is subject to governmental control. In the United States, there have been, and we expect that there will continue to be, a number of federal and state proposals to implement similar governmental pricing control. While we cannot predict whether such legislative or regulatory proposals will be adopted, the adoption of such proposals could have a material adverse effect on our business, financial condition and profitability.

Hazardous Materials

Our discovery and development processes involve the controlled use of hazardous materials, chemicals and radioactive materials and the production of waste products. We are subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of hazardous materials and waste products. We do not expect the cost of complying with these laws and regulations to be material.

Employees

As of December 31, 2007, we had 42 full-time employees, 29 of whom were engaged in research and development and 13 of whom were engaged in management, administration and finance. Of our employees, more than half hold advanced degrees. In February 2008 we reduced our workforce to 34 full-time employees, 21 of whom were engaged in research and development and 13 of whom were engaged in management, administration and finance. None of our employees are represented by a labor union or covered by a collective bargaining agreement, nor have we experienced work stoppages. We believe that relations with our employees are good.

Company Website

We maintain a website at *www.torreypinestherapeutics.com* . We make available free of charge on our website our periodic and current reports as soon as reasonably practicable after such reports are filed with the Securities and Exchange Commission, or SEC. Information contained on, or accessible through, our website is not part of this report or our other filings with the SEC.

We were initially incorporated in Nevada on July 29, 1997 as Axonyx Inc. In October 2006, we were reincorporated in Delaware and changed our name to TorreyPines Therapeutics, Inc. Our principal executive offices

are located at 11085 North Torrey Pines Road, Suite 300, La Jolla, CA 92037, and our telephone number is (858) 623-5665.

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 on Form 10-K and in our other filings with the Securities and Exchange Commission, before you decide to buy or maintain an investment in our common stock. We believe the risks described below are the risks that are material to us as of the date of this annual report. If any of the following risks actually occur, 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 could decline, and you may lose all or part of the money you paid to buy our common stock.

Risks Related to Our Business

We expect to continue to incur net operating losses for the next several years and may never achieve profitability.

We have incurred net operating losses every year since our inception. As of December 31, 2007, we had an accumulated deficit of approximately $96.4 million. Over the next several years we expect a significant increase in our operating losses as we conduct additional discovery, development, clinical testing and regulatory compliance activities. All of our revenue to date has been payments received in connection with our collaboration and licensing agreements. We cannot be certain that we will generate additional revenue through licensing activities or that we will receive any of the milestone or royalty payments associated with our current collaboration and licensing agreements. Given the risks associated with discovery, development, clinical testing, manufacturing and marketing of drug products, we may never be successful in commercializing a drug product that will enable us to be profitable. Our ability to generate significant continuing revenue depends on a number of factors, including:

- successful completion of on-going and future clinical trials for our product candidates;
- achievement of regulatory approval for our product candidates;
- successful completion of current and future strategic collaborations; and
- successful manufacturing, sales, distribution and marketing of our products.

We do not anticipate that we will generate significant continuing revenue for several years. Even if we do achieve profitability, we may not be able to sustain or increase profitability.

All of our product candidates are at an early stage of development. We cannot be certain that any of our product candidates will be successfully developed, receive regulatory approval, or be commercialized.

Our product candidates are at an early stage of development and we do not have any products that are commercially available. Our product candidates, ionotropic glutamate receptor antagonists tezampanel and NGX426 and muscarinic receptor agonist NGX267, are currently in clinical development. Our product candidate, NGX292, is in preclinical development. We will need to perform additional development work and conduct further clinical trials for all of our product candidates before we can seek the regulatory approvals necessary to begin commercial sales.

Success in preclinical testing and early clinical trials does not mean that later clinical trials will be successful. Companies frequently suffer significant setbacks in later stage clinical trials, even after earlier clinical trials have shown promising results. In future clinical trials with larger or somewhat different populations, results from early clinical trials may not be reproduced and analysis of new or additional data may not demonstrate sufficient safety and efficacy to support regulatory approval of a product candidate.

Additionally, preclinical testing and clinical trials are expensive, can take many years, and have an uncertain outcome. Product candidates may not be successful in clinical trials for a number of reasons, including, but not limited to, the failure of a product candidate to be safe and efficacious, the results of later stage clinical trials not

confirming earlier clinical results, or clinical trial results not being acceptable to the FDA or other regulatory agencies.

There is no certainty that the safety and efficacy results of our Phase IIb clinical trial for tezampanel in acute migraine announced in October 2007 are predictive of results in subsequent trials of tezampanel or are meaningful indicators of the efficacy of tezampanel. We will be required to perform additional clinical testing in order to obtain regulatory approval of tezampanel and the results of such additional clinical testing may not replicate what has been demonstrated to date regarding the safety and efficacy of tezampanel. Additionally, further testing of tezampanel may not result in data sufficient to support regulatory approval.

We do not anticipate that any of our current product candidates will be eligible to receive regulatory approval and begin commercialization for a number of years, if at all. Even if we were to ultimately receive regulatory approval for one or more of our product candidates, we may be unable to successfully commercialize them for a variety of reasons including:

- the availability of alternative treatments;
- the product not being cost effective to manufacture and sell;
- limited acceptance in the marketplace; and
- the effect of competition with other marketed products.

The success of our product candidates may also be limited by the incidence and severity of any adverse events or undesirable side effects. Additionally, any regulatory approval to market a product may be subject to the imposition by such regulatory agency of limitations on the indicated uses. These limitations may reduce the size of the market for the product. If we fail to commercialize one or more of our current product candidates, our business, results of operations, financial condition, and prospects for future growth will be materially and adversely affected.

We will need substantial additional funding and may be unable to raise capital when needed, which would force us to delay, reduce or eliminate our discovery and development programs or commercialization efforts.

We will need to raise substantial additional capital in the future and additional funding requirements will depend on, and could increase significantly as a result of, many factors, including:

- the rate of progress and cost of clinical trials;
- the scope of our clinical trials and other discovery and development activities;
- the prioritization and number of clinical development and discovery programs we pursue;
- the terms and timing of any collaborative, licensing and other arrangements that we may establish;
- the costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights;
- the costs and timing of regulatory approvals;
- the costs of goods and manufacturing expenses; and
- the costs of establishing or contracting for sales and marketing capabilities.

We do not anticipate that we will generate significant continuing revenue for several years, if at all. Until we can generate significant continuing revenue, if ever, we expect to satisfy our future cash needs through public or private

equity offerings, debt financings or corporate collaboration and licensing arrangements, as well as through interest income earned on cash balances. We cannot be certain that additional funding will be available on acceptable terms, or at all. If adequate funds are not available, we may be required to delay, reduce the scope of, or eliminate one or more of our discovery and development programs or commercialization efforts.

Delays in the commencement or completion of clinical testing of our product candidates could result in increased costs to us and delay our ability to generate significant revenues.

We cannot predict whether we will encounter problems with any of our planned clinical trials that will cause us or regulatory authorities to delay or suspend our clinical trials, or delay the analysis of data from such clinical trials. Any of the following factors could delay the clinical development of our product candidates:

- on-going discussions with the FDA or comparable foreign authorities regarding the scope or design of one or more clinical trials;
- delays in receiving, or the inability to obtain, required approvals from institutional review boards or other reviewing entities at clinical trial sites selected for participation in a clinical trial;
- delays or slower than anticipated enrollment of participants into clinical trials;
- lower than anticipated retention rate of participants in clinical trials;
- need to repeat clinical trials as a result of inconclusive or negative results or unforeseen complications in testing;
- inadequate supply or deficient quality of product candidate materials or other materials necessary to conduct our clinical trials;
- unfavorable FDA inspection and review of a clinical trial site or records of any clinical or preclinical investigation;
- serious, unexpected adverse events or undesirable side effects experienced by participants in the clinical trials that delay or preclude regulatory approval or limit the commercial use or market acceptance if approved;
- findings that the clinical trial participants are being exposed to unacceptable health risks;
- placement by the FDA of a clinical hold on a clinical trial;
- restrictions on or post-approval commitments with regard to any regulatory approval we ultimately obtain that renders a product candidate not commercially viable; and
- unanticipated cost overruns in preclinical studies and clinical trials.

In addition, once a clinical trial has started, it may be suspended or terminated by us or the FDA or other regulatory authorities due to a number of factors, including:

- failure to conduct the clinical trial in accordance with regulatory requirements;
- inspection of the clinical trial operations or clinical trial site by the FDA or other regulatory authorities resulting in the imposition of a clinical hold;
- negative clinical trial results;
- adverse events or negative side-effects experienced by the clinical trial participants; or

- lack of adequate funding to continue the clinical trial.

Before we can demonstrate adequate safety and efficacy we will need to reach agreement with the FDA on the endpoints for some of our Phase III clinical trials where endpoints have not been validated and we may work with the FDA to potentially design and validate one or more endpoints. The FDA may not accept any or all of the endpoints and they may ultimately decide that the endpoints are inadequate to demonstrate the safety and efficacy levels required for regulatory approval. Our failure to adequately demonstrate the safety and efficacy of our product candidates would jeopardize our ability to achieve regulatory approval for, and ultimately to commercialize, the product candidates.

Clinical trials require sufficient participant enrollment, which is a function of many factors, including the size of the target population, the nature of the clinical trial protocol, the proximity of participants to clinical trial sites, the availability of effective treatments for the relevant disorder or disease, the eligibility criteria for our clinical trials and the number of competing clinical trials. Delays in enrollment can result in increased costs and longer development times. Failure to enroll participants in our clinical trials could delay the completion of the clinical trials beyond current expectations. In addition, the FDA could require us to conduct clinical trials with a larger number of participants than we may project for any of our product candidates. As a result of these factors, we may not be able to enroll a sufficient number of participants in a timely or cost-effective manner.

Additionally, enrolled participants may drop out of clinical trials, which could impair the validity or statistical significance of the clinical trials. A number of factors can lead participants in a clinical trial to discontinue participating in the clinical trial, including, but not limited to: the inclusion of a placebo arm in the clinical trial; possible lack of effect of the product candidate being tested at one or more of the dose levels being tested; adverse side effects experienced by the participant, whether or not related to the product candidate; and the availability of alternative treatment options.

We, the FDA or other applicable regulatory authorities may suspend clinical trials of a product candidate at any time if we or they believe the participants in such clinical trials, or in independent third-party clinical trials for product candidates based on similar technologies, are being exposed to unacceptable health risks or for other reasons. In addition, it is impossible to predict whether legislative changes will be enacted, or whether FDA regulations, guidance or interpretations will be changed, or what the impact of such changes, if any, may be.

If we experience any such problems, we may not have the financial resources to continue development of the product candidate that is affected or the development of any of our other product candidates. If we experience significant delays in the commencement or completion of clinical testing, financial results and the commercial prospects for the product candidates will be harmed and costs will increase. Additionally, any significant delays in the commencement or completion of clinical testing will delay our ability to generate significant revenue.

We rely on third parties to assist us in conducting clinical trials. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may not be able to obtain regulatory approval for or commercialize our product candidates.

We rely on, and intend to continue to rely on, third parties, such as contract research organizations, medical institutions, clinical investigators and contract laboratories, to conduct clinical trials of our product candidates. Our reliance on these third parties for development activities reduces our control over these activities. If these third parties do not successfully carry out their contractual duties or obligations or meet expected deadlines, or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols or for other reasons, our clinical trials may be extended, delayed or terminated. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may be required to replace them. Although we believe there are a number of third party contractors we could engage to continue these activities, replacing a third party contractor may result in a delay of the affected trial. Accordingly, we may not be able to obtain regulatory approval for or successfully commercialize our product candidates.

We have licensed rights to product candidates tezampanel and NGX426 from Eli Lilly and Company, or Eli Lilly. Eli Lilly has rights of termination under the license agreement, which if exercised would adversely affect our business.

In April 2003, we entered into an agreement with Eli Lilly to obtain an exclusive license from Eli Lilly to their ionotropic glutamate receptor antagonist assets tezampanel and NGX426. Pursuant to the license agreement we have obligations to make payments to Eli Lilly under the agreement and to use commercially reasonable efforts to develop and commercialize the product candidates, including achievement of specified development events within specified timeframes. Eli Lilly may terminate the agreement for uncured material breach of the agreement by us, including any breach of our development and commercialization obligations. If Eli Lilly were to terminate the agreement, we would lose rights to the ionotropic glutamate receptor antagonist product candidates, and our business would be adversely affected.

We have licensed rights to product candidates NGX267 and NGX292 from Life Science Research Israel, or LSRI. LSRI has rights of termination under the license agreement, which if exercised would adversely affect our business.

In May 2004, we entered into an agreement with LSRI to obtain an exclusive license from LSRI to their muscarinic receptor agonist assets NGX267 and NGX292. We have obligations to make payments to LSRI under the agreement and to use commercially reasonable efforts to develop and commercialize the product candidates subject to the agreement, including achievement of specified development events within specified timeframes. LSRI may terminate the agreement for uncured material breach of the agreement by us, including any breach of our development and commercialization obligations. If LSRI were to terminate the agreement, we would lose rights to the muscarinic receptor agonist product candidates, and our business would be adversely affected.

We depend on Eisai Co. Ltd., or Eisai, for funding for our Alzheimer's disease genetics discovery program. Eisai has the first right to obtain rights to gene targets resulting from this program, which could delay or limit our ability to develop and commercialize these gene targets.

In October 2005, we entered into an agreement with Eisai to discover gene targets useful in treating or preventing Alzheimer's disease in humans. This agreement had an initial two-year term which Eisai elected to extend for an additional 12 months. This agreement will conclude on October 1, 2008. We depend upon Eisai to provide funding for the research we conduct under this agreement. If Eisai were to cease funding this program for any reason, we would need to provide our own funding for the program, seek a strategic partner for further work on the program, raise additional funding, or curtail or abandon the program. In connection with the conclusion of our collaboration agreement with Eisai for our GSM program in February 2008, we streamlined our operations by reducing our work force.

During the term of the agreement for our Alzheimer's disease genetics discovery program, Eisai has exclusive first rights of negotiation and refusal with regard to a license, collaboration or other arrangement regarding gene targets discovered and validated in the course of the Alzheimer's disease genetics research program. These rights held by Eisai may delay or limit our ability to enter into a license, collaboration or other arrangement with a third party for any gene targets resulting from the Alzheimer's disease genetic research program.

If we fail to enter into and maintain collaborations for our product candidates, we may have to reduce or delay product development or increase expenditures.

Our strategy for developing, manufacturing, and commercializing potential products includes establishing and maintaining collaborations with pharmaceutical and biotechnology companies to advance some of our programs and share expenditures with partners on those programs. We may not be able to negotiate future collaborations on acceptable terms, if at all. If we are not able to establish and maintain collaborative arrangements, we may have to reduce or delay further development of some programs or undertake the development activities at our own expense. If we elect to increase capital expenditures to fund development programs on our own, we will need to obtain additional capital, which may not be available on acceptable terms or at all. Even if we do succeed in securing such

collaborations, we may not be able to maintain them if, for example, objectives under the agreement are not met, the agreement is terminated or not renewed, development or approval of a product candidate is delayed or sales of an approved drug are disappointing. Furthermore, any delay in entering into collaborations could delay the development and commercialization of our product candidates and reduce their competitiveness, even if they reach the market. Any such delay related to our collaborations could adversely affect our business.

If our strategic partners do not devote adequate resources to the development and commercialization of our product candidates, we may not be able to commercialize our products and achieve revenues.

We may enter into collaborations with other strategic partners with respect to our product candidates. If we enter into any such collaborations, we may have limited or no control over the amount and timing of resources that our partners dedicate to the development of our product candidates. Our ability to commercialize products we develop with our partners and generate royalties from product sales will depend on the partner's ability to assist us in establishing the safety and efficacy of our product candidates, obtaining regulatory approvals and achieving market acceptance of products. Our partners may elect to delay or terminate development of a product candidate, independently develop products that could compete with our products, or not commit sufficient resources to the marketing and distribution of products under the collaboration. If our partners fail to perform as expected under the collaborative agreements, our potential for revenue from the related product candidates will be dramatically reduced. In addition, revenue from our future collaborations may consist of contingent payments, such as payments for achieving development and commercialization milestones and royalties payable on sales of any successfully developed drugs. The milestone, royalty or other revenue that we may receive under these collaborations will depend upon both our ability and our partner's ability to successfully develop, introduce, market and sell new products. In some cases, we will not be involved in these processes and, accordingly, will depend entirely on our partners.

We do not have internal manufacturing capabilities. If we fail to develop and maintain supply relationships with collaborators or other third party manufacturers, we may be unable to develop or commercialize our products.

Our ability to develop and commercialize our products depends in part on our ability to manufacture, or arrange for future collaborators or other third parties to manufacture, our products at a competitive cost, in accordance with regulatory requirements and in sufficient quantities for clinical testing and eventual commercialization. None of our current product candidates have been manufactured on a commercial scale. We and our third-party manufacturers may encounter difficulties with the small- and large-scale formulation and manufacturing processes required to manufacture our product candidates, resulting in delays in clinical trials and regulatory submissions, in the commercialization of product candidates or, if any product candidate is approved, in the recall or withdrawal of the product from the market. Our inability to enter into or maintain agreements with capable third-party manufacturers on acceptable terms could delay or prevent the commercialization of our products, which would adversely affect our ability to generate revenue and could prevent us from achieving profitability.

We believe that we have sufficient supplies of tezampanel, NGX426 and NGX267 for our current clinical trials. We will need to identify and reach agreement with third parties for the supply of our product candidates for future clinical trials. We do not have long-term supply agreements with third parties, and we may not be able to enter into supply agreements with them in a timely manner or on acceptable terms, if at all. These third parties may also be subject to capacity constraints that would cause them to limit the amount of our product candidates they can produce or the chemicals that we can purchase. Any interruption or delay we experience in the supply of our product candidates may impede or delay such product candidates' clinical development and cause us to incur increased expenses associated with identifying and qualifying one or more alternate suppliers.

In addition, we, our future collaborators or other third-party manufacturers of our products must comply with cGMP requirements enforced by the FDA through its facilities inspection program. These requirements include quality control, quality assurance and the maintenance of records and documentation. In addition, product manufacturing facilities in California are subject to licensing requirements of the California Department of Health Services and may be inspected by the California Department of Health Services at any time. We, our collaborators or other third-party manufacturers of our products may be unable to comply with these cGMP requirements and with

other FDA, state and foreign regulatory requirements. A failure to comply with these requirements may result in fines and civil penalties, suspension or delay in product approval, product seizure or recall, or withdrawal of product approval.

We currently have no marketing or sales staff. If we are unable to enter into or maintain collaborations with marketing partners or if we are unable to develop our own sales and marketing capabilities, we may not be successful in commercializing our potential products and we may be unable to generate significant revenues.

We may elect to commercialize some of the products we are developing on our own, with or without a partner, where those products can be effectively marketed and sold in concentrated markets that do not require a large sales force to be competitive. We currently have no sales, marketing or distribution capabilities. To be able to commercialize our own products, we will need to establish our own specialized sales force and marketing organization with technical expertise and with supporting distribution capabilities. Developing such an organization is expensive and time consuming and could delay or limit our ability to commercialize products.

To commercialize any product candidate that we decide not to market on our own, we will depend on collaborations with third parties that have established distribution systems and direct sales forces. If we are unable to enter into such collaborations on acceptable terms, we may not be able to successfully commercialize those products.

To the extent that we enter into arrangements with collaborators or other third parties to perform sales and marketing services, our product revenue is likely to be lower than if we directly marketed and sold our product candidates. If we are unable to establish adequate sales and marketing capabilities, independently or with others, we may not be able to generate significant revenue and may not become profitable and the price of our common stock may be negatively affected.

Tezampanel and NGX426 belong to a new class of compounds. There are no compounds in this class that have received regulatory approval for any indication. Therefore, we do not know whether our product candidates will yield commercially viable products or receive regulatory approval.

Tezampanel and NGX426 are ionotropic glutamate receptor antagonists of the AMPA and kainite subtype. They are part of a new class of compounds that block the binding of glutamate to AMPA and kainite receptors and, in turn, stop the transmission of pain signals. Tezampanel and NGX426 may represent a novel approach to the treatment of numerous pain and non-pain diseases and disorders. There are currently no approved products that are ionotropic glutamate receptor antagonists of the AMPA and kainite subtype. As a result, we cannot be certain that tezampanel and NGX426 will result in commercially viable drugs.

NGX267 and NGX292 are being developed to treat xerostomia, or dry mouth. There are currently two muscarinic receptor agonists approved to treat xerostomia. We do not know if NGX267 and NGX292 will yield commercially viable products or receive regulatory approval.

NGX267 and NGX292 are muscarinic receptor agonists with functionally specific M1 receptor activity that we intend to develop for the treatment of xerostomia, or dry mouth. There are currently two muscarinic receptor agonists marketed in the United States for the treatment of xerostomia. We do not know whether or not NGX267 and NGX292 will have any advantages over the currently marketed products or will be safe and efficacious. Failure to demonstrate an advantage over the currently marketed products or a failure to be safe and efficacious will prevent us from commercializing NGX267 and NGX292 or generating significant revenue.

NGX267 and NGX292 may be developed in the future for Alzheimer's disease or CIAS, indications for which there are no products approved by the FDA, and for which no regulatory precedents have been established. Therefore, we do not know whether our product candidates will yield commercially viable products or receive regulatory approval.

NGX267 and NGX292 are muscarinic receptor agonists with functionally specific M1 receptor activity that we may develop in the future for the treatment of Alzheimer's disease or CIAS. There are currently no approved therapies for the treatment of Alzheimer's disease or CIAS. Therefore, in order to successfully commercialize

NGX267 and NGX292, we will need to agree with the FDA and other applicable regulatory agencies on clinical trial endpoints regarding safety and efficacy. Given the lack of current treatments for each of these indications, we may be unable to agree on the endpoints or successfully complete clinical trials that demonstrate that such endpoints, if agreed to, have been met. Any delay in agreeing to clinical trial endpoints or in achieving those endpoints could delay commercialization thereby damaging our ability to generate significant revenue from NGX267 and NGX292, or prevent us from commercializing NGX267 and NGX292 altogether.

If our product candidates do not achieve market acceptance among physicians, patients, health care payors and the medical community, they will not be commercially successful and our business will be adversely affected.

The degree of market acceptance of any of our approved product candidates among physicians, patients, health care payors and the medical community will depend on a number of factors, including:

- 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;
- effectiveness of sales and marketing strategies; and
- ability to obtain sufficient third-party coverage or reimbursement.

If we are unable to achieve market acceptance for our product candidates, then such product candidates will not be commercially successful and our business will be adversely affected.

If we fail to attract and keep key management and scientific personnel, we may be unable to develop or commercialize our product candidates successfully.

Our success depends on our continued ability to attract, retain and motivate highly qualified management and scientific personnel. The loss of the services of any principal member of our senior management team could delay or prevent the commercialization of our product candidates. We employ these individuals on an at-will basis and their employment can be terminated by us or them at any time, for any reason and with or without notice, subject to the terms contained in their respective employment agreements and offer letters.

Competition for qualified personnel in the drug development industry is intense. We may not be able to attract and retain quality personnel on acceptable terms given the competition for such personnel among biotechnology, pharmaceutical and other companies.

Companies and universities that have licensed product candidates to us for research, clinical development and marketing are sophisticated competitors that could develop similar products to compete with our products.

Licensing our product candidates from other companies, universities or individuals does not always prevent them from developing non-identical but competitive products for their own commercial purposes, nor from pursuing patent protection in areas that are competitive with us. Our partners who created these product candidates are experienced scientists and business people who may continue to do research and development and seek patent protection in the same areas that led to the discovery of the product candidates that they licensed to us. The development and commercialization of successful new drug products from our discovery program is likely to attract additional research by our licensors in addition to other investigators who have experience in drug development. By virtue of the previous research that led to the discovery of the drugs or product candidates that they licensed to us, these companies, universities, or individuals may be able to develop and market competitive products in less time than might be required to develop a product with which they have no prior experience.

Changes in, or interpretations of, accounting rules and regulations could result in unfavorable accounting charges or require us to change our compensation policies.

Accounting methods and policies for biopharmaceutical companies, including policies governing revenue recognition, expenses, accounting for stock options and in-process research and development costs are subject to further review, interpretation and guidance from relevant accounting authorities, including the SEC. Changes to, or interpretations of, accounting methods or policies in the future may result in unfavorable accounting charges or may require us to change our compensation policies to avoid such charges.

Our management will be required to devote substantial time to comply with public company regulations.

As a public company, we will incur significant legal, accounting and other expenses. In addition, the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, as well as rules subsequently implemented by the SEC and the Nasdaq Global Market, impose various requirements on public companies, including corporate governance practices. Our management and other personnel will have to meet these requirements. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly.

In addition, the Sarbanes-Oxley Act requires, among other things, that we maintain effective internal controls for financial reporting and disclosure controls and procedures. In particular, we must perform system and process evaluation and testing of our internal controls over financial reporting to allow management to report on the effectiveness of its internal controls over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act. Our compliance with Section 404 will require that we incur substantial accounting and related expense and expend significant management efforts. We will need to hire additional accounting and financial staff to satisfy the on-going requirements of Section 404. Moreover, if we are not able to comply with the requirements of Section 404, or if we or our independent registered public accounting firm identifies deficiencies in our internal controls over financial reporting that are deemed to be material weaknesses, the market price of our stock could decline and we could be subject to sanctions or investigations by the Nasdaq Global Market, SEC or other regulatory authorities.

We are a defendant in a class action lawsuit and a stockholder derivative lawsuit which, if determined adversely, could have a material adverse affect on us.

A class action securities lawsuit and a stockholder derivative lawsuit was filed against us, as described under "Part II, Item 1–Legal Proceedings." We are defending against these actions vigorously; however, we do not know what the outcome of these proceedings will be and, if we do not prevail, we may be required to pay substantial damages or settlement amounts. Furthermore, regardless of the outcome, we may incur significant defense costs, and the time and attention of our management may be diverted from normal business operations. If we are ultimately required to pay significant defense costs, damages or settlement amounts, such payments could materially and adversely affect our operations and results. We have purchased liability insurance, however, if any costs or expenses associated with the litigation exceed the insurance coverage, we may be forced to bear some or all of these costs and expenses directly, which could be substantial and may have an adverse effect on our business, financial condition, results of operations and cash flows. In any event, publicity surrounding the lawsuits and/or any outcome unfavorable to us could adversely affect our reputation and stock price. The uncertainty associated with substantial unresolved lawsuits could harm our business, financial condition and reputation.

We have certain obligations to indemnify our officers and directors and to advance expenses to such officers and directors. Although we have purchased liability insurance for our directors and officers, if our insurance carriers should deny coverage, or if the indemnification costs exceed the insurance coverage, we may be forced to bear some or all of these indemnification costs directly, which could be substantial and may have an adverse effect on our business, financial condition, results of operations and cash flows. If the cost of our liability insurance increases significantly, or if this insurance becomes unavailable, we may not be able to maintain or increase our levels of insurance coverage for our directors and officers, which could make it difficult to attract or retain qualified directors and officers.

Fluctuations in currency exchange rates may negatively impact our business.

We currently have operations in Belgium and are conducting clinical trials in Europe. Costs resulting from our operations in Europe are denominated primarily in local currencies, including the Euro, and are subject to fluctuations in currency exchange rates. Further, we incur other operating expenses, including expenses related to clinical trials, which are denominated in Euros and other local currencies. Significant fluctuations in the currency exchange rates and general economic conditions in the countries in which we do business, could harm our operating results.

The carrying value of our investment in OXIS International may face future impairment.

We account for our investment in OXIS under the equity method of accounting following accounting principles bulletin (APB) No. 18. For the last six months of 2007 the recorded value of our investment in OXIS was greater than its fair value. As a result, we determined the impairment of value was other than temporary, and therefore wrote down the investment to its fair value at December 31, 2007. This resulted in an impairment charge of $1.9 million. An additional impairment charge would be required if we determined that any further reduction in the OXIS market value over the carrying value was permanent.

Risks Related to Our Intellectual Property

Our success depends upon our ability to protect our intellectual property and proprietary technologies.

Our commercial success depends on obtaining and maintaining patent protection and trade secret protection of our product candidates, proprietary technologies and their uses, as well as successfully defending our patents 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 trade secrets cover them.

The patent positions of pharmaceutical and biotechnology companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in biotechnology patents has emerged to date in the U.S. The biotechnology patent situation outside the U.S. is even more uncertain. Changes in either the patent laws or in interpretations of patent laws in the U.S. and other countries may diminish the value of our intellectual property. Accordingly, we cannot predict the breadth of claims that may be allowed or enforced in our patents or in third-party patents.

The degree of future protection for our proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage. For example:

- we or our licensors might not have been the first to make the inventions covered by each of its pending patent applications and issued patents;
- we or our licensors might not have been the first to file patent applications for these inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies;
- it is possible that none of our pending patent applications will result in issued patents;
- our issued patents 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 issued patents may not be valid or enforceable;
- we may not develop additional proprietary technologies that are patentable; and
- the patents of others may have an adverse effect on our business.

Proprietary trade secrets and unpatented know-how are also very important to our business. Although we have taken steps to protect our trade secrets and unpatented know-how, including entering into confidentiality agreements

with third parties and proprietary information and inventions agreements with employees, consultants and advisors, third parties may still obtain this information. Enforcing a claim that a third party illegally obtained and is using our trade secrets or unpatented know-how is expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the U.S. may be less willing to protect this information. Moreover, our competitors may independently develop equivalent knowledge, methods and know-how.

If we are sued for infringing intellectual property rights of third parties, it will be costly and time consuming, and an unfavorable outcome in that litigation would have a material adverse effect on our business.

Our commercial success depends upon our ability and the ability of any of our collaborators to develop, manufacture, market, and sell our product candidates and use our proprietary technologies without infringing the proprietary rights of third parties. Numerous U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we are developing products. Because patent applications can take many years to issue, there may be currently pending applications, unknown to us, which may later result in issued patents that our product candidates or proprietary technologies may infringe. We have not conducted a complete search of existing patents to identify existing patents that our product candidates or proprietary technologies may inadvertently infringe.

We may be exposed to future litigation by the companies holding these patents or other third parties based on claims that our product candidates and/or proprietary technologies infringe their intellectual property rights. If one of these patents was found to cover our product candidates, proprietary technologies or their uses, we or our collaborators could be required to pay damages and could be unable to commercialize our product candidates or use our proprietary technologies unless we obtained a license to the patent. A license to these patents may not be available to us or our collaborators on acceptable terms, if at all.

There is a substantial amount of litigation involving patent and other intellectual property rights in the biotechnology and biopharmaceutical industries generally. If a third party claims that we or our collaborators infringe on its technology, it may face a number of issues, including:

- infringement and other intellectual property claims which, with or without merit, may be expensive and time-consuming to litigate and may divert management's attention from its core business;
- substantial damages for infringement, including treble damages and attorneys' fees, as well as damages for products development using allegedly infringing drug discovery tools or methods which we may have to pay if a court decides that the product or proprietary technology at issue infringes on or violates the third party's rights;
- a court prohibiting us from selling or licensing the product or using the proprietary technology unless the third party licenses its technology to us, which it is not required to do;
- if a license is available from the third party, we may have to pay substantial royalties, fees and/or grant cross licenses to its technology; and
- redesigning our products or processes so they do not infringe, which may not be possible or may require substantial funds and time.

We may also be subject to claims that we or our employees, who were previously employed at universities or other biotechnology or pharmaceutical companies, have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers. Litigation may be necessary to defend against these claims. If we fail in defending such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. A loss of key research personnel or their work product could hamper or prevent our ability to commercialize certain potential drugs, which could severely harm our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

Risks Related to Our Industry

Our product candidates are subject to extensive regulation, which can be costly and time consuming, cause unanticipated delays or prevent the receipt of the required approvals to commercialize our product candidates.

The clinical development, manufacturing, labeling, storage, record-keeping, future advertising, promotion, export, marketing and distribution of our product candidates are subject to extensive regulation by the FDA and other regulatory agencies in the U.S. and by comparable foreign governmental authorities. The process of obtaining these approvals is expensive, often takes many years, and can vary substantially based upon the type, complexity and novelty of the products involved. Approval policies or regulations may change. In addition, although members of our management have drug development and regulatory experience, as a company we have not previously filed the marketing applications necessary to gain regulatory approvals for any product. This lack of experience may impede our ability to obtain FDA marketing approval in a timely manner, if at all, for the product candidates we are developing and commercializing. We will not be able to commercialize our product candidates in the U.S. until we obtain FDA approval and in other countries until we obtain approval by comparable governmental authorities. Any delay in obtaining, or inability to obtain, these approvals would prevent us from commercializing our product candidates.

Even if any of our product candidates receive regulatory approval, they may still face future development and regulatory difficulties.

If any of our product candidates receive regulatory approval, the FDA and foreign regulatory authorities may still impose significant restrictions on the uses or marketing of the product candidates or impose on-going requirements for post-approval studies. In addition, regulatory agencies subject a product, its manufacturer and the manufacturer's facilities to continuing review and periodic inspections. If previously unknown problems with a product or its manufacturing facility are discovered, a regulatory agency may impose restrictions on that product, us, or our partners, including requiring withdrawal of the product from the market. Our candidates will also be subject to on-going FDA requirements for submission of safety and other post-market information. If our product candidates fail to comply with applicable regulatory requirements, a regulatory agency may:

- issue warning letters;
- impose civil or criminal penalties;
- suspend regulatory approval;
- suspend any on-going clinical trials;
- refuse to approve pending applications or supplements to approved applications filed by us or our collaborators;
- impose restrictions on operations, including costly new manufacturing requirements; or
- seize or detain products or require a product recall.

In order to market any products outside of the U.S., we and our partners must establish and comply with numerous and varying regulatory requirements of other countries regarding safety and efficacy. Approval procedures vary among countries and can involve additional product testing and additional administrative review periods. The time required to obtain approval in other countries might differ from that required to obtain FDA approval. The regulatory approval process in other countries may include all of the risks detailed above regarding FDA approval in the U.S. Regulatory approval in one country does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country may negatively impact the regulatory process in others. Failure to obtain regulatory approval in other countries or any delay or setback in obtaining such approval could have the same adverse effects described above regarding FDA approval in the U.S., including the risk that our

product candidates may not be approved for all indications requested, which could limit the uses of our product candidates and adversely impact potential royalties and product sales, and that such approval may be subject to limitations on the indicated uses for which the product may be marketed or require costly, post-marketing follow-up studies.

If we and our partners fail to comply with applicable foreign regulatory requirements, we and our partners may be subject to fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

If our competitors have products that are approved faster, marketed more effectively or demonstrated to be more effective than our products, then our commercial opportunity will be reduced or eliminated.

The biotechnology and biopharmaceutical industries are characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. We face competition from many different sources, including commercial pharmaceutical and biotechnology enterprises, academic institutions, government agencies and private and public research institutions. Due to the high demand for treatments in the areas in which we are competing, research is intense and new treatments are being sought out and developed by our competitors.

In addition, many other competitors are developing products for the treatment of the diseases we are targeting and if successful, these products could compete with our products. If we receive approval to market and sell any of our product candidates, we may compete with these companies and their products as well as others in varying stages of development.

Many of our competitors have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, clinical trials, regulatory approvals and marketing approved products than we do. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. Our competitors may succeed in developing technologies and therapies that are more effective, better tolerated or less costly than ours, or that would render our product candidates obsolete and noncompetitive. Our competitors may succeed in obtaining approvals from the FDA and foreign regulatory authorities for their products sooner than we do. We will also face competition from these third parties in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials, and in acquiring and in-licensing technologies and products complementary to our programs or advantageous to our business.

We are subject to uncertainty relating to health care reform measures and reimbursement policies which, if not favorable to our product candidates, could hinder or prevent the commercial success of our product candidates.

The continuing efforts of the government, insurance companies, managed care organizations and other payors of health care costs to contain or reduce costs of health care may adversely affect our:

- ability to set a price we believe is fair for our products;
- ability to generate revenues and achieve profitability;
- future revenues and profitability of potential customers, suppliers and collaborators; and
- the availability of capital.

In certain foreign markets, the pricing of prescription drugs is subject to government control. In the U.S., given recent federal and state government initiatives directed at lowering the total cost of health care, Congress and state legislatures will likely continue to focus on health care reform, the cost of prescription drugs and the reform of the Medicare and Medicaid systems. For example, a new Medicare prescription drug benefit program began in 2006. While we cannot predict the full outcome of the implementation of this legislation or whether any future legislative or regulatory proposals affecting our business will be adopted, the announcement or adoption of these proposals could materially and adversely affect our business, financial condition, and results of operations.

Our ability to commercialize our product candidates successfully will depend in part on the extent to which governmental authorities, private health insurers and other organizations establish appropriate reimbursement levels for the cost of our products and related treatments. Third-party payors are increasingly challenging the prices charged for medical products and services. Also, the trend toward managed health care in the U.S., which could significantly influence the purchase of health care services and products, as well as legislative proposals to reform health care or reduce government insurance programs, may result in lower prices for our product candidates or exclusion of its product candidates from reimbursement programs. The cost containment measures that health care payors and providers are instituting and the effect of any health care reform could materially and adversely affect our results of operations.

Product liability claims may harm our business if our insurance coverage for those claims is inadequate.

We face an inherent risk of product liability exposure related to the testing of our product candidates in human clinical trials, and will face an even greater risk if we sell our product candidates commercially. An individual may bring a liability claim against us if one of our product candidates causes, or merely appears to have caused, an injury. If we are unable to successfully defend ourselves against any such product liability claim, we will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

- decreased demand for our product candidates;
- injury to our reputation;
- withdrawal of clinical trial participants;
- costs of related litigation;
- substantial monetary awards to patients or other claimants;
- loss of revenues; and
- the inability to commercialize our product candidates.

We have product liability insurance that covers our clinical trials, up to an annual aggregate limit of $5.0 million. We intend to expand our insurance coverage to include the sale of commercial products if marketing approval is obtained for any of our product candidates. However, insurance coverage is increasingly expensive. We may not be able to maintain insurance coverage at a reasonable cost and we may not be able to obtain insurance coverage that will be adequate to satisfy any liability that may arise.

We use hazardous chemicals and radioactive and biological materials in our business. Any claims relating to improper handling, storage or disposal of these materials could be time-consuming and costly.

Our research and development processes involve the controlled use of hazardous materials, including chemicals, radioactive and biological materials. Our operations produce hazardous waste products. We cannot eliminate the risk of accidental contamination or discharge and any resultant injury from those materials. Federal, state and local laws and regulations govern the use, manufacture, storage, handling and disposal of hazardous materials. We may be sued for any injury or contamination that results from our use or the use by third parties of these materials. Compliance with environmental laws and regulations may be expensive, and current or future environmental regulations may impair our research, development and production efforts.

Risks Related to our Common Stock

Our stock price has been, and is expected to continue to be, volatile.

The market price of our common stock could be subject to significant fluctuations. Market prices for securities of early-stage pharmaceutical, biotechnology and other life sciences companies have historically been particularly volatile. Some of the factors that may cause the market price of our common stock to fluctuate include:

- the results of our current and any future clinical trials of our product candidates;
- the results of on-going preclinical studies and planned clinical trials of our preclinical product candidates;

- the entry into, or termination of, key agreements, including key strategic alliance agreements;
- the results and timing of regulatory reviews relating to the approval of our product candidates;
- the initiation of, material developments in, or conclusion of litigation to enforce or defend any of our intellectual property rights;
- general and industry-specific economic conditions that may affect our research and development expenditures;
- the results of clinical trials conducted by others on drugs that would compete with our product candidates;
- issues in manufacturing our product candidates or any approved products;
- the loss of key employees;
- the introduction of technological innovations or new commercial products by our competitors;
- failure of any of our product candidates, if approved, to achieve commercial success;
- changes in estimates or recommendations by securities analysts, if any, who cover our common stock;
- future sales of our common stock;
- changes in the structure of health care payment systems; and
- period-to-period fluctuations in our financial results.

Moreover, the stock markets in general have experienced substantial volatility that has often been unrelated to the operating performance of individual companies. These broad market fluctuations may also adversely affect the trading price of our common stock.

In the past, following periods of volatility in the market price of a company's securities, stockholders have often instituted class action securities litigation against those companies. Such litigation, if instituted, could result in substantial costs and diversion of management attention and resources, which could significantly harm our profitability and reputation.

Anti-takeover provisions in our stockholder rights plan and in our certificate of incorporation and bylaws may prevent or frustrate attempts by stockholders to change the board of directors or current management and could make a third-party acquisition difficult.

We are a party to a stockholder rights plan, also referred to as a poison pill, which is intended to deter a hostile takeover of us by making such proposed acquisition more expensive and less desirable to the potential acquirer. The stockholder rights plan and our certificate of incorporation and bylaws, as amended, contain provisions that may discourage, delay or prevent a merger, acquisition or other change in control that stockholders may consider favorable, including transactions in which stockholders might otherwise receive a premium for their shares. These provisions could limit the price that investors might be willing to pay in the future for shares of our common stock.

Our largest stockholders may take actions that are contrary to your interests, including selling their stock.

A small number of our stockholders hold a significant amount of our outstanding stock. These stockholders may support competing transactions and have interests that are different from yours. In addition, the average number of shares of our stock that trade each day is generally low. As a result, sales of a large number of shares of our stock by these large stockholders or other stockholders within a short period of time could adversely affect our stock price.

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.

Raising additional funds by issuing securities or through collaboration and licensing arrangements may cause dilution to existing stockholders, restrict operations or require us to relinquish proprietary rights.

We may raise additional funds through public or private equity offerings, debt financings or corporate collaboration and licensing arrangements. To the extent that we raise additional capital by issuing equity securities, our existing stockholders' ownership will be diluted. Any debt financing we enter into may involve covenants that restrict our operations. These restrictive covenants may include limitations on additional borrowing, specific restrictions on the use of our assets as well as prohibitions on our ability to create liens, pay dividends, redeem stock or make investments. In addition, if we raise additional funds through collaboration and licensing arrangements, it may be necessary to relinquish potentially valuable rights to our potential products or proprietary technologies, or grant licenses on terms that are not favorable to us.

There is only a limited trading market for our common stock and it is possible that investors may not be able to sell their shares easily.

There is currently only a limited trading market for our common stock. Our common stock trades on the Nasdaq Global Market under the symbol "TPTX" with very limited trading volume. We cannot assure investors that a substantial trading market will be sustained for our common stock.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

We lease approximately 20,000 square feet of laboratory and office space in La Jolla, California, under a lease that expires in February 2009. We also lease approximately 400 square feet in Leuven, Belgium, under a lease that expires in August 2008. We believe that our current facilities are adequate for our needs for the foreseeable future and that, should it be needed, suitable additional space will be available to accommodate expansion of our operations on commercially reasonable terms.

Item 3. Legal Proceedings.

Several lawsuits were filed against us in February 2005 in the U.S. District Court for the Southern District of New York asserting claims under Sections 10(b) and 20(a) of the Securities Exchange Act of 1934, as amended, or the Exchange Act and Rule 10b-5 thereunder on behalf of a class of purchasers of our common stock during the period from June 26, 2003, through and including February 4, 2005, referred to as the class period. Dr. Marvin S. Hausman, M.D., a former director and our former Chief Executive Officer, and Dr. Gosse B. Bruinsma, M.D., also a former director and former Chief Executive Officer, were also named as defendants in the lawsuits. These actions were consolidated into a single class action lawsuit in January 2006. On April 10, 2006, the class action plaintiffs filed an amended consolidated complaint. We filed our answer to that complaint on May 26, 2006. Our motion to dismiss the consolidated amended complaint was filed on May 26, 2006 and was submitted to the court for a decision in September 2006. The motion to dismiss is pending.

The class action plaintiffs allege generally that our Phase III phenserine development program was subject to alleged errors of design and execution which resulted in the failure of the first Phase III phenserine trial to show efficacy. Plaintiffs allege the defendants' failure to disclose the alleged defects resulted in the artificial inflation of the price of our shares during the class period.

There is also a shareholder derivative suit pending in New York Supreme Court, New York County, against a current director and former directors and officers. The named defendants are Marvin S. Hausman, M.D., Gosse B. Bruinsma, M.D., S. Colin Neill, Louis G. Cornacchia, Steven H. Ferris, Ph.D., Gerard J. Vlak, Ralph

Snyderman, M.D. and Michael A. Griffith. Defendants are alleged to have breached their duties to the company and misused inside information regarding clinical trials of phenserine. This action has been stayed pending further developments in the federal class action.

The complaints seek unspecified damages. We believe the complaints are without merit and we intend to defend these lawsuits vigorously. However, we cannot make assurances that we will prevail in these actions, and, if the outcome is unfavorable to us, our reputation, operations and stock price could be adversely affected.

Item 4. Submission of Matters to a Vote of Security Holders.

There were no matters submitted to a vote of security holders during the quarter ended December 31, 2007.

PART II

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

Market Information

Our common stock is currently traded on the Nasdaq Global Market, under the symbol "TPTX." The following table sets forth the range of high and low sales prices of our common stock for the quarterly periods indicated, as reported by Nasdaq (adjusted for the 8-for-1 reverse stock split which occurred on October 3, 2006). Such quotations represent inter-dealer prices without retail mark up, mark down or commission and may not necessarily represent actual transactions.

	High	Low
Year Ended December 31, 2007:		
First Quarter	$ 8.75	$ 6.59
Second Quarter	7.52	6.10
Third Quarter	7.32	5.76
Fourth Quarter	6.15	2.26
Year Ended December 31, 2006:		
First Quarter	$ 10.00	$ 6.64
Second Quarter	11.60	6.40
Third Quarter	9.12	6.64
Fourth Quarter	9.00	6.15

Holders

As of March 14, 2008, there were 340 holders of record of our common stock.

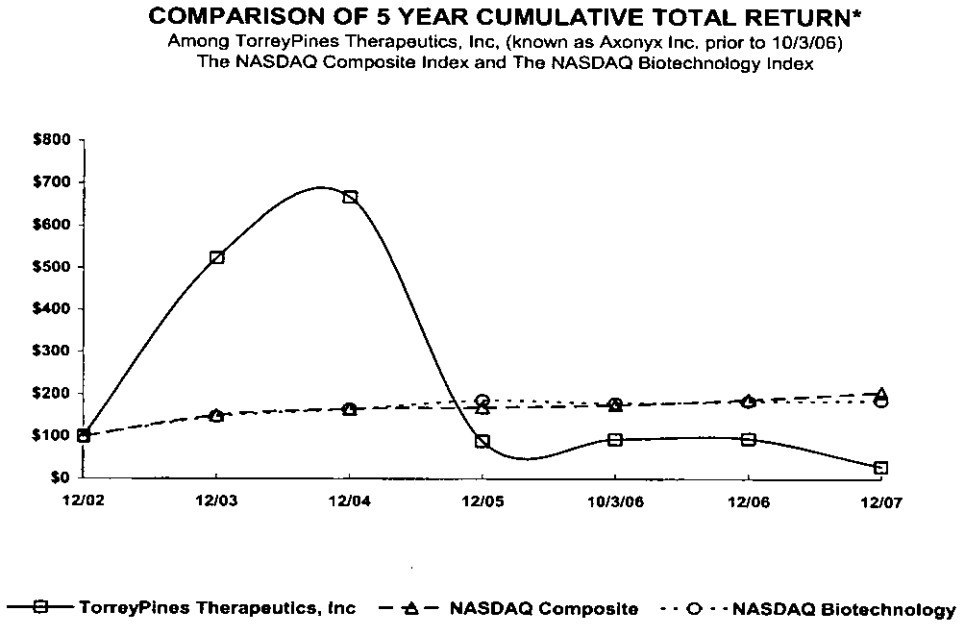
Dividends

We have never paid cash dividends on our common stock, and we do not expect to pay any cash dividends in the foreseeable future. Our future dividend policy will depend on our earnings, cash requirements, expansion plans, financial condition and other relevant factors.

Stock Price Performance Graph

The information included under the heading "Stock Performance Graph" included in Item 5 of this Annual Report on Form 10-K shall not be deemed to be "soliciting material" or subject to Regulation 14A or 14C, shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, which we refer to as the Exchange Act, or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act.

The following graph shows a comparison of the total cumulative returns of an investment of $100 in cash for the period of December 31, 2002 through December 31, 2007, in (i) our common stock, (ii) the Nasdaq Composite Index and (iii) the Nasdaq Biotechnology Index. The comparisons in the graph are required by the SEC and are not intended to forecast or be indicative of the possible future performance of our common stock. The graph assumes that all dividends have been reinvested (to date, we have not declared any dividends).



* $100 invested on 12/31/02 in stock or index-including reinvestment of dividends.
Fiscal year ending December 31.

Item 6. Selected Financial Data.

Prior to October 3, 2006 we were known as Axonyx Inc. On October 3, 2006, we completed a business combination, referred to as the "Merger", with TorreyPines Therapeutics, Inc. (now known as TPTX, Inc.). For accounting purposes, we were deemed to be the acquired entity in the Merger, and the Merger was accounted for as a reverse acquisition. In connection with the Merger, we changed our name to TorreyPines Therapeutics, Inc. and effected an 8-for-1 reverse stock split of our Common Stock. Our financial statements reflect the historical results of TPTX, Inc. prior to the Merger and that of the combined company following the Merger, and do not include the historical results of Axonyx Inc. prior to the completion of the Merger. All share and per share disclosures have been retroactively adjusted to reflect the exchange of shares in the Merger, and the 8-for-1 reverse split of our common stock on October 3, 2006. All references to "TorreyPines," "we," "us," "our" or the "Company" mean TorreyPines Therapeutics, Inc. and its subsidiaries, except where it is made clear that the term means only the parent company.

The following consolidated selected financial data should be read in conjunction with "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Item 8. Financial Statements and Supplementary Data" included elsewhere in this Annual Report on Form 10-K. Certain reclassifications have been made to prior period amounts to conform to the current presentation.

	Years Ended December 31,				
	2007	2006	2005	2004	2003
	(In thousands, except share and per share data)				
Statement of Operations Data:					
Revenue	$ 9,850	$ 9,850	$ 7,967	$ 3,551	$ 3,644
Operating expenses:					
Research and development	27,977	22,353	17,317	11,379	14,735
General and administrative	5,643	3,971	2,588	2,399	1,629
Purchased in-process research and development	—	8,328	—	—	—
Total operating expenses	33,620	34,652	19,905	13,778	16,364
Loss from operations	(23,770)	(24,802)	(11,938)	(10,227)	(12,720)
Other income (expense), net	401	(575)	396	(129)	(383)
Net loss	(23,369)	(25,377)	(11,542)	(10,356)	(13,103)
Dividends and accretion to redemption value of redeemable convertible preferred stock	—	—	(4,434)	(2,593)	(1,870)
Net loss attributable to common stockholders	(23,369)	(25,377)	(15,976)	(12,949)	(14,973)
Basic and diluted net loss per share attributable to common stockholders	$ (1.49)	$ (8.18)	$ (30.69)	$ (25.99)	$ (30.51)
Shares used to compute basic and diluted net loss per share attributable to common stockholders	15,717,984	3,100,852	520,588	498,127	490,809

	As of December 31,				
	2007	2006	2005	2004	2003
	(In thousands)				
Selected Balance Sheet Data:					
Cash and cash equivalents	$ 32,500	$ 55,383	$ 28,757	$ 27,629	$ 9,293
Working capital	24,299	43,694	24,806	24,357	6,541
Total assets	38,652	63,435	31,104	29,888	12,942
Long-term debt, net of current portion	954	4,397	3,826	591	2,233
Redeemable convertible preferred stock	—	—	72,018	67,584	35,806
Accumulated deficit	(96,401)	(73,032)	(58,850)	(42,874)	(29,925)
Total stockholders' equity (deficit)	26,460	44,569	(58,341)	(42,381)	(29,472)

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

The following discussion of our financial condition contains certain statements that are not strictly historical and are "forward-looking" statements within the meaning of the Private Securities Litigation Reform Act of 1995 and involve a high degree of risk and uncertainty. Our actual results may differ materially from those projected in the forward-looking statements due to risks and uncertainties that exist in our operations, development efforts and business environment, including those set forth under the Section entitled "Risk Factors" in Item 1A, and other documents we file with the Securities and Exchange Commission. All forward-looking statements included in this report are based on information available to us as of the date hereof, and, unless required by law, we assume no obligation to update any such forward-looking statement.

Overview

We are a biopharmaceutical company committed to providing patients with better alternatives to existing therapies through the research, development and commercialization of small molecule compounds. Our goal is to develop versatile product candidates each capable of treating a number of acute and chronic diseases and disorders such as migraine, chronic pain, muscle spasticity and rigidity, xerostomia and cognitive disorders. We are currently developing four product candidates, two ionotropic glutamate receptor antagonists and two muscarinic receptor agonists.

Our two ionotropic glutamate receptor antagonists, tezampanel and NGX426, are currently in clinical development. Tezampanel and NGX426 competitively block the binding of glutamate at the AMPA and kainate receptor subtypes. While normal glutamate production is essential, excess glutamate has been implicated in a number of diseases and disorders. Tezampanel and NGX426 are the first glutamate receptor antagonists with this combined binding activity to be tested in humans. In October 2007, we released the results of a Phase IIb clinical trial of tezampanel, our most advanced product candidate. In this clinical trial, a single dose of tezampanel given by injection was statistically significant compared to placebo in treating acute migraine headache. This was the sixth Phase II trial in which tezampanel has been shown to have analgesic activity. We intend to hold an end of Phase II meeting with the FDA in the second half of 2008 to discuss the scope of a Phase III program for tezampanel in acute migraine. Assuming a successful outcome of this meeting, and additional financial resources, we plan to move forward with a Phase III program with tezampanel for the treatment of acute migraine. Also, in the second half of 2008 we plan to initiate a small, Phase II trial of tezampanel for the treatment of muscle spasticity and rigidity, a disorder commonly associated with spinal cord trauma, stroke, and multiple sclerosis. If initiated, this will be our first clinical trial of tezampanel in a non-pain indication.

NGX426 is an oral prodrug of tezampanel. In clinical trials, NGX426 has been shown to rapidly convert to tezampanel. We intend to complete our on-going Phase I maximum tolerated single dose clinical trial of NGX426 in the first half of 2008. Once this study is completed and the maximum tolerated dose has been identified, we intend to initiate a Phase I trial to evaluate multiple doses of NGX426 given to healthy adults. Also in the first half of 2008, we plan to initiate a clinical trial in healthy adults to determine the analgesic effect of NGX426.

Our muscarinic receptor agonist currently in clinical development is NGX267. We have completed three Phase I clinical trials evaluating single and multiple doses of NGX267 given to healthy adults. In March 2008, we initiated a Phase II clinical trial in patients to evaluate NGX267 for the treatment of xerostomia, or dry mouth, secondary to Sjogren's syndrome. Additionally, based on its mechanism of action, we believe NGX267 may also be developed to treat cognitive disorders such as Alzheimer's disease and cognitive impairment associated with schizophrenia, or CIAS. However, we have no plans to initiate any clinical trials of NGX267 in Alzheimer's disease or CIAS in 2008. NGX292, our other muscarinic receptor agonist, is structurally similar to NGX267 and is in preclinical development.

We also have two drug discovery programs, a GSM program and an Alzheimer's disease genetics program. These programs are focused on discovering and validating novel small molecule compounds and molecular targets for Alzheimer's disease. Our genetics program is undertaken in collaboration with Eisai Co., Ltd.

We have incurred net losses since inception as we have devoted substantially all of our resources to research and development, including early-stage clinical trials. As of December 31, 2007, our accumulated deficit was $96.4 million. We expect to incur substantial and increasing losses for the next several years as we continue to expend substantial resources seeking to successfully research, develop, manufacture, obtain regulatory approval for, market and sell our product candidates. We expect that in the near term, we will incur substantial losses relating primarily to costs and expenses in our efforts to advance the development of tezampanel, NGX426, and NGX267.

We have not generated any revenue from product sales since inception and do not expect to generate any revenue from product sales for the next several years. Because our product candidates are at an early stage of clinical and preclinical development and the outcome of these efforts is uncertain, we cannot estimate the actual amounts necessary to successfully complete the development and commercialization of our product candidates or whether, or when, we may achieve profitability.

We believe that our available cash and cash equivalents at December 31, 2007 will provide sufficient funds to enable us to meet our on-going working capital requirements at least through December 31, 2008.

Financial Operations Overview

Revenue

All of our revenue to date has been derived from license and option fees and research funding from our strategic alliance agreements. We will continue to seek partners for some or all of our product candidates and drug discovery programs. In the future, we will seek to generate revenue from some or all of the following sources:

- license and option fees from partners;
- research funding from partners;
- milestone payments from partners;
- royalties from partners; and
- product sales.

We expect that any revenue we generate will fluctuate from quarter to quarter as a result of the timing and amount of payments received under our strategic alliance agreements, and the amount and timing of payments we receive upon the sale of our products, to the extent any are successfully commercialized. If we fail to complete the development of our product candidates in a timely manner or obtain regulatory approval, our ability to generate future revenue, and our financial condition and results of operations, would be materially adversely affected.

Research and Development

Since inception, we have focused on discovery and development of novel small molecule compounds to treat a number of acute and chronic diseases and disorders. We are currently developing four product candidates, three of which are in clinical trials:

- Tezampanel, for the treatment of migraine, has been studied in three Phase I clinical trials and six Phase II clinical trials;
- NGX426 has been studied in one Phase I clinical trial and is being studied in an on-going Phase I clinical trial; and
- NGX267 has been studied in three Phase I clinical trials and is being studied in an on-going Phase II clinical trial for the treatment of xerostomia.

Research and development expense has represented approximately 83%, 65% and 87% of our total operating expenses for the years ended December 31, 2007, 2006 and 2005, respectively. We expense research and development costs as incurred. Research and development expense consists of expenses incurred in identifying, researching, developing and testing product candidates. These expenses primarily consist of the following:

- compensation of personnel and consultants associated with research and development activities;

- fees paid to contract research organizations and professional service providers for independent monitoring analysis and regulatory services for our clinical trials;
- laboratory supplies and materials;
- manufacturing of product candidates for use in our preclinical testing and clinical trials;
- preclinical studies;
- depreciation of equipment; and
- allocated costs of facilities and infrastructure.

Because of the risks inherent in research and development, we cannot reasonably estimate or know the nature, timing and estimated costs of the efforts necessary to complete the development of our programs, the anticipated completion dates of these programs, or the period in which material net cash inflows are expected to commence, if at all, from the programs described above and any potential future product candidates. If either we or any of our partners fail to complete any stage of the development of any potential products in a timely manner, it could have a material adverse effect on our operations, financial position and liquidity.

General and Administrative

General and administrative expense consists primarily of salaries and other related costs for personnel in executive, finance, accounting, business development, information technology and human resource functions. Other costs include facility costs not otherwise included in research and development expense and professional fees for legal and accounting services.

Purchased In-Process Research and Development

Purchased in-process research and development expense represents the fair value of certain of the intangible assets we acquired in the Merger for which technological feasibility had not been established and no alternative future uses exist for the technologies. We cannot predict if we will incur similar expenses in the future.

Results of Operations

Comparison of the Year Ended December 31, 2007 and 2006

The following table summarizes our results of operations with respect to the items set forth in such table for the years ended December 31, 2007 and 2006, in thousands, together with the change in such items in dollars and as a percentage.

	Years Ended December 31			
	2007	2006	$ Change	% Change
Revenue	$ 9,850	$ 9,850	$ —	— %
Research and development expenses	27,977	22,353	5,624	25%
General and administrative expenses	5,643	3,971	1,672	42%
Purchased in-process research and development	—	8,328	(8,328)	(100)%
Interest income	2,069	1,559	510	33%
Interest expense	817	994	(177)	(18)%

Revenue. Revenue for the year ended December 31, 2007 was unchanged from the same period in 2006. During 2007 there were no changes in our strategic licensing agreements that affected our revenue from license and option fees or research funding.

Research and development expense. Research and development expense increased to $27.9 million in 2007 from $22.3 million in 2006. The $5.6 million increase was attributable to a $7.5 million increase in expense for our development programs, offset by a $1.9 million decrease in expense for our discovery programs. The increase in spending for our development programs was due to increased clinical development activities for tezampanel,

NGX426 and NGX267 in 2007 compared to 2006. The decrease in spending for our discovery programs was due to lower costs incurred for our gamma-secretase modulator program and our Alzheimer's disease genetics program in 2007 compared to 2006.

General and administrative expense. General and administrative expense increased to $5.6 million in 2007 from $4.0 million in 2006. The $1.6 million increase was primarily attributable to increased personnel costs and related expenses and increased stock based compensation expense in 2007 compared to 2006. The increase in personnel costs and related expenses is due to the addition of key general and administrative personnel during the first quarter of 2007. The increase in stock based compensation expense in 2007 compared to 2006 is due to the recognition of a full year of expense associated with restricted stock units granted to executives in late 2006. We also recognized stock based compensation expense in 2007 in connection with stock options granted to members of our board of directors. There were no similar stock option grants in 2006.

Purchased in-process research and development expense. There was no Purchased in-process research and development expense during the year ended December 31, 2007. Purchased in-process research and development for the year ended December 31, 2006 of $8.3 million resulted from the Merger and represents the estimated fair value of certain intangible assets acquired in that transaction. We determined these assets had not reached technological feasibility and had no alternative future use, therefore the assets were fully expensed in 2006.

Interest income. Interest income in 2007 increased to $2.1 million in 2007 from $1.6 million in 2006. The increase of $0.5 million is due to higher average cash and cash equivalents balances in 2007 compared to 2006.

Interest expense. Interest expense decreased to $0.8 million in 2007 from $1.0 million in 2006. The $0.2 million decrease is attributable to a lower average debt balance in 2007 compared to 2006.

Comparison of the Year Ended December 31, 2006 and 2005

The following table summarizes our results of operations with respect to the items set forth in such table for the years ended December 31, 2006 and 2005, in thousands, together with the change in such items in dollars and as a percentage.

	Years Ended December 31			
	2006	2005	$ Change	% Change
Revenue	$ 9,850	$ 7,967	$ 1,883	24%
Research and development expenses	22,352	17,317	5,035	29%
General and administrative expenses	3,971	2,588	1,383	53%
Purchased in-process research and development	8,328	—	8,328	n/a
Interest income	1,559	774	785	101%
Interest expense	994	290	704	243%

Revenue. Revenue increased to $9.9 million in 2006 from $8.0 million in 2005. The $1.9 million increase is the result of two research agreements entered into with Eisai in February and October of 2005.

Research and development expense. Research and development expense increased to $22.3 million in 2006 from $17.3 million in 2005. The $5.0 million increase was primarily attributable to a $5.7 million increase in expense for our development programs, offset by a $0.7 million decrease in expense for our discovery programs. Of the $5.7 million increase in spending for our development programs, approximately $3.9 million is due to increased clinical development activities for tezampanel, NGX426 and NGX267 in 2006 compared to 2005. The remaining $1.8 million is due to an increase in licensing costs. Licensing costs were higher in 2006 compared to 2005 because we achieved certain milestones under our agreement with LSRI. The decrease in spending for our discovery programs was primarily due to lower research funding requirements under our agreement with LSRI for 2006 compared to 2005.

General and administrative expense. General and administrative expense increased to $4.0 million in 2006 from $2.6 million in 2005. The $1.4 million increase was attributable to increased professional services costs,

including increased audit, legal and investor relations costs. Additionally, personnel costs and related expenses increased in 2006 compared to 2005.

Purchased in-process research and development expense. Purchased in-process research and development for the year ended December 31, 2006 of $8.3 million resulted from the Merger and represents the estimated fair value of certain intangible assets acquired in that transaction. We determined the assets had not reached technological feasibility and had no alternative future use, therefore the assets were fully expensed in 2006. There was no similar expense in 2005.

Interest income. Interest income in 2006 increased to $1.6 million in 2006 from $0.8 million in 2005. The increase of $0.8 million is due to higher average cash and cash equivalents balances in 2006 compared to 2005.

Interest expense. Interest expense increased to $1.0 million in 2006 from $0.3 million in 2005. The $0.7 million increase is attributable to a higher average debt balance in 2006 compared to 2005. In September 2005, we entered into a $10.0 million debt facility agreement; we drew down $5.0 million of the debt facility in September 2005 and the remaining $5.0 million in March 2006.

Liquidity and Capital Resources

Since our inception and until the recent Merger, we have financed our business primarily through private placements of preferred stock, payments from research agreements, debt financing and interest income. We have incurred significant losses since inception.

Through December 31, 2007, we had received net proceeds of approximately $67.5 million from the issuance of equity securities, primarily from the issuance of redeemable convertible preferred stock. In 2006, we sold a total of 689,036 shares of Series C-2 redeemable convertible preferred stock for net proceeds of $6.3 million. Pursuant to the Merger, all outstanding shares of redeemable convertible preferred stock were exchanged for common stock.

Through December 31, 2007, we had received an aggregate of $43.6 million in option fee and research funding payments. During 2005 we entered into two separate research agreements with Eisai under which we received up-front payments totaling of $13.6 million. We extended each of these agreements for an additional twelve months during 2007 and received up-front payments totaling $6.8 million. One of these agreements expired by its terms in February 2008.

Through December 31, 2007, we had incurred $18.7 million in debt to finance equipment purchases and our on-going operations. During 2005, we entered into a $10.0 million debt facility agreement, from which we drew down $5.0 million in 2005 and an additional $5.0 million in 2006.

At December 31, 2007, we had cash and cash equivalents of $32.5 million as compared to $55.4 million at December 31, 2006. The cash balance at December 31, 2007 is $22.9 million lower than the balance at December 31, 2006 due largely to operating losses, capital equipment purchases, repayments of debt and working capital movements from December 31, 2006 to December 31, 2007. Cash and cash equivalents increased from $28.8 million at December 31, 2005 to $55.4 million at December 31, 2006. The higher balance at December 31, 2006 was due largely to the $43.7 million of cash acquired in the Merger, net of merger related expenses, the $5.0 million drawdown of debt and the issuance of redeemable convertible preferred stock in the amount of $6.3 million, net of issuance costs, offset by operating losses, capital equipment purchases, repayment of debt and working capital movements from December 31, 2005 to December 31, 2006.

Our management believes that we have sufficient funds to enable us to meet our on-going working capital requirements through at least December 31, 2008. For a further discussion of the risks related to the availability of cash to fund our future operations, please see "Risk Factors."

We expect to continue to fund our operations with existing cash resources that were primarily generated from equity financings, cash payments under our research agreements, and debt financing arrangements until we can generate significant cash from our operations. In addition, we may finance future cash needs through the sale of equity securities, entering into strategic collaboration agreements and debt financing. However, we may not be successful in entering into strategic collaboration agreements, or in receiving research funding under current agreements or milestone or royalty payments under future agreements. In addition, we cannot be sure that our existing funds will be adequate or that additional financing will be available when needed or that, if available,

financing will be obtained on terms favorable to us or our stockholders. Having insufficient funds may require us to delay, scale back or eliminate some or all of our research or development programs or 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. Failure to obtain adequate financing also may adversely affect our ability to operate as a going concern.

If we raise additional capital by issuing equity securities, our existing stockholders' ownership will be diluted. Any debt financing we enter into may involve covenants that restrict our operations. These restrictive covenants may include limitations on additional borrowing, specific restrictions on the use of our assets as well as prohibitions on our ability to create liens, pay dividends, redeem our stock or make investments. In addition, if we raise additional funds through collaboration and licensing arrangements, we may be required to relinquish potentially valuable rights to our product candidates or proprietary technologies, or grant licenses on terms that are not favorable to us.

As of December 31, 2007, we had the following contractual obligations (in thousands):

	Payments Due by Period				
	Total	2008	2009-2010	2011-2012	2013 and beyond
Debt (1)	$ 5,186	$ 4,036	$ 1,150	$ —	$ —
Operating lease obligations	733	628	105	—	—
Milestone payment due under license agreement	1,000	1,000	—	—	—
	$ 6,919	$ 5,664	$ 1,255	$ —	$ —

(1) Includes monthly principal and interest payments.

We may be obligated to pay up to $72.8 million in payments due upon the occurrence of certain milestones related to regulatory or commercial events described in our license agreements. We may also be required to pay royalties on any net sales of the licensed products. These milestone payments and royalty payments under our license agreements are not included in the table above because we cannot, at this time, determine when or if the related milestones will be achieved or the events triggering the commencement of payment obligations will occur.

We also enter into agreements with contract research organizations and clinical sites for the conduct of our clinical trials. We will make payments to these organizations and sites based upon the number of patients enrolled and the length of their participation in the clinical trials. At this time, due to the variability associated with these agreements, we are unable to estimate with certainty the future costs we will incur.

We have entered into employment agreements with key executives that provide for the continuation of salary if terminated for reasons other than cause, as defined in those agreements. These agreements generally expire upon termination for cause or when the Company has met its obligations under these agreements. As of December 31, 2007, no events have occurred resulting in the obligation of any such payments.

Our future capital uses and requirements depend upon a number of factors, which may include but are not limited to the following:

- the rate of progress and cost of our discovery and development activities,
- the scope, prioritization and number of research and development programs we pursue,
- the costs and timing of regulatory approvals,
- the costs of establishing or contracting for manufacturing, sales and marketing capabilities,
- the terms and timing of any strategic collaboration or license agreements that we may establish,
- the costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights,

- the effect of competing technological and market developments, and
- the extent to which we acquire or in-license new products, technologies or businesses.

Subsequent Events

On February 29, 2008 our discovery-phase GSM collaboration with Eisai concluded. In connection with conclusion of this agreement we implemented a reduction of our work force. In addition, Neil Kurtz, M.D., our President and Chief Executive Officer, will assume oversight of all clinical development programs. Michael Murphy, M.D., Ph.D., who has served as our Chief Medical Officer, left the company effective February 29, 2008 to pursue other interests.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements.

Critical Accounting Policies and Significant Judgments and Estimates

Our discussion and analysis of our financial condition and results of operations are based on our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States, or GAAP. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting periods. Note 1 of the notes to our financial statements included in this Form 10-K includes a summary of our significant accounting policies and methods used in the preparation of our financial statements. On an on-going basis, our management evaluates its estimates and judgments, including those related to revenue, accrued expenses, in-process research and development and stock-based compensation. Our management bases its estimates on historical experience, known trends and events, and various other factors that it believes to be reasonable under the circumstances, the results of which form its basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Our management believes the following accounting policies and estimates are most critical to aid you in understanding and evaluating our reported financial results.

Revenue Recognition

We recognize revenue in accordance with the SEC's Staff Accounting Bulletin, or SAB, No. 104, *Revenue Recognition*, and Emerging Issues Task Force, or EITF, No. 00-21, *Revenue Arrangements with Multiple Deliverables*. To date we have recorded license and option fee revenue and research funding revenue from four research agreements with Eisai. The terms of the agreements typically include up-front payments to us of non-refundable license and/or option fees and, in some cases, payments for research efforts. Future agreements could also include milestone payments and royalty payments.

We recognize revenue from up-front non-refundable license and option fees on a straight-line basis over the contracted or estimated period of performance, which is typically the research term. Amounts received for research funding for a specific number of full-time researchers are recognized as revenue as the services are provided, as long as the amounts received are not refundable regardless of the results of the research project. Milestone payments, if any, will be recognized on achievement of the milestone, unless the amounts received are creditable against royalties or we have on-going performance obligations. Royalty payments, if any, will be recognized on sale of the related product, provided the royalty amounts are fixed and determinable, and collection of the related receivable is probable.

Accrued Expenses

As part of the process of preparing financial statements, we are required to estimate accrued expenses. This process involves identifying services which have been performed on our behalf, and estimating the level of service performed and the associated cost incurred for such service as of each balance sheet date in our financial statements.

Examples of services for which we must estimate accrued expenses include contract service fees paid to contract manufacturers in conjunction with the production of clinical drug supplies and to contract research organizations in connection with our preclinical studies and clinical trials. In connection with such service fees, our estimates are most affected by our understanding of the status and timing of services provided. The majority of our service providers invoice us in arrears for services performed. In the event that we do not identify certain costs which have been incurred, or we under- or over-estimate the level of services performed or the costs of such services in a given period, our reported expenses for such period would be too low or too high. The date on which certain services commence, the level of services performed on or before a given date, and the cost of such services are often determined based on subjective judgments. We make these judgments based upon the facts and circumstances known to us. To date, we have been able to reasonably estimate these costs; however, as we increase the level of services performed on our behalf, it will become increasingly more difficult for us to estimate these costs, which could result in our reported expenses for future periods being too high or too low.

Stock-Based Compensation

We estimate the fair value of stock options granted using the Black-Scholes option valuation model and the fair value of restricted stock units granted using a Monte-Carlo simulation option-pricing model. The fair values of stock option and restricted stock unit awards are amortized over the requisite service periods of the awards. Both the Black-Scholes option valuation model and the Monte-Carlo simulation option-pricing model require the input of highly subjective assumptions, including the option or restricted stock unit's expected life, price volatility of the underlying stock, risk free interest rate and expected dividend rate. As stock-based compensation expense related to stock options is based on awards ultimately expected to vest, the stock-based compensation expense has been reduced for estimated forfeitures of stock options. Statement of Financial Accounting Standards, or SFAS, No. 123R, *Share-Based Payment*, requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Stock option forfeitures were estimated based on historical experience. We may elect to use different assumptions under both the Black-Scholes option valuation model or the Monte-Carlo simulation option-pricing model in the future, which could materially affect our net income or loss and net income or loss per share.

Recent Accounting Pronouncements

In September 2006, the FASB issued Statement of Financial Accounting Standards ("SFAS") No. 157, *Fair Value Measurements* , which provides a single definition of fair value, a framework for measuring fair value, and expanded disclosures concerning fair value. Previously, different definitions of fair value were contained in various accounting pronouncements creating inconsistencies in measurement and disclosures. SFAS No. 157 applies under those previously issued pronouncements that prescribe fair value as the relevant measure of value, except Statement No. 123R and related interpretations and pronouncements that require or permit measurement similar to fair value but are not intended to measure fair value. This pronouncement is effective for fiscal years beginning after November 15, 2007. We do not expect the adoption of SFAS No. 157 to have a material impact on our consolidated financial statements.

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities—Including an Amendment of FASB Statement No. 115.* This standard permits an entity to choose to measure many financial instruments and certain other items at fair value. Most of the provisions in SFAS No. 159 are elective; however, the amendment to SFAS No. 115, *Accounting for Certain Investments in Debt and Equity Securities,* applies to all entities with available-for-sale and trading securities. The fair value option established by SFAS No. 159 permits all entities to choose to measure eligible items at fair value at specified election dates. A business entity will report unrealized gains and losses on items for which the fair value option has been elected in earnings (or another performance indicator if the business entity does not report earnings) at each subsequent reporting date. The fair value option: (a) may be applied instrument by instrument, with a few exceptions, such as investments otherwise accounted for by the equity method; (b) is irrevocable (unless a new election date occurs); and (c) is applied only to entire instruments and not to portions of instruments. SFAS No. 159 is effective as of the beginning of an entity's first fiscal year that begins after November 15, 2007. We do not expect the adoption of SFAS No. 159 to have a material impact on our consolidated financial statements.

In June 2007, the Emerging Issues Task Force ("EITF") issued EITF Issue No. 07-3, *Accounting for Nonrefundable Advance Payments for Goods or Services to be Used in Future Research and Development Activities*. EITF Issue No. 07-3 requires companies to defer and capitalize prepaid, nonrefundable research and development payments to third parties over the period that the research and development activities are performed or the services are provided, subject to an assessment of recoverability. EITF Issue No. 07-3 is effective for new contracts entered into in fiscal years beginning after December 15, 2007, including interim periods within those fiscal years. We do not expect the adoption of EITF Issue No. 07-3 to have a material impact on our financial statements.

In November 2007, the EITF issued EITF Issue No. 07-1, *Accounting for Collaborative Arrangements Related to the Development and Commercialization of Intellectual Property.* Companies may enter into arrangements with other companies to jointly develop, manufacture, distribute, and market a product. Often the activities associated with these arrangements are conducted by the collaborators without the creation of a separate legal entity (that is, the arrangement is operated as a "virtual joint venture"). The arrangements generally provide that the collaborators will share, based on contractually defined calculations, the profits or losses from the associated activities. Periodically, the collaborators share financial information related to product revenues generated (if any) and costs incurred that may trigger a sharing payment for the combined profits or losses. The consensus requires collaborators in such an arrangement to present the result of activities for which they act as the principal on a gross basis and report any payments received from (made to) other collaborators based on other applicable GAAP or, in the absence of other applicable GAAP, based on analogy to authoritative accounting literature or a reasonable, rational, and consistently applied accounting policy election. EITF Issue No. 07-1 is effective for collaborative arrangements in place at the beginning of the annual period beginning after December 15, 2008. As the Company's collaborative agreements do not incorporate such revenue- and cost-sharing arrangements, we do not expect the adoption of EITF Issue No. 07-1 to have a material impact on our financial statements.

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

We are exposed to market risk related to changes in interest rates. Our current investment policy is to maintain an investment portfolio consisting mainly of U.S. money market and high-grade corporate securities, directly or through managed funds, with maturities of one and a half years or less. We do not enter into investments for trading or speculative purposes. Our cash is deposited in and invested through highly rated financial institutions in North America. Our marketable securities are subject to interest rate risk and will fall in value if market interest rates increase. If market interest rates were to increase immediately and uniformly by 10% from levels at December 31, 2007 and 2006, we estimate that the fair value of our investment portfolio would decline by an immaterial amount. We have the ability to hold our fixed income investments until maturity therefore we would not expect our operating results or cash flows to be affected to any significant degree by the effect of a change in market interest rates on its investments.

We have foreign currency accounts that are exposed to currency exchange risk. The functional currency of our European subsidiary, which is based in Belgium, is the local currency. Accordingly, the accounts of this subsidiary are translated from the local currency to the U.S. dollar using the current exchange rate at the balance sheet date for the balance sheet accounts, and using the average exchange rate during the period for revenue and expense accounts. The effects of translation are recorded in accumulated other comprehensive loss as a separate component of stockholders' deficit. Because we did not have any transactions denominated in foreign currencies during the years ended December 31, 2007 and 2006, we did not record exchange gains and losses in operations for those periods. If the foreign currency rates were to fluctuate by 10% from exchange rates at December 31, 2007 and 2006, the effect on our financial statements would not be material. However, there can be no assurance there will be not be a material impact in the future.

Item 8. Financial Statements and Supplementary Data.

Our financial statements appear in a separate section of this Annual Report on Form 10-K beginning on page F-1.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

Prior to consummation on October 3, 2006 of the Merger between Axonyx Inc. and TorreyPines Therapeutics, Inc., now called TPTX, Inc., Axonyx Inc. utilized Eisner LLP as its independent registered public accounting firm. Prior to consummation of the Merger, TPTX, Inc. utilized Ernst & Young LLP as its independent registered public accounting firm.

On December 11, 2006, we dismissed our independent registered public accounting firm, Eisner LLP and engaged Ernst & Young LLP as our independent registered public accounting firm to audit the financial statements of our fiscal year ending December 31, 2006. The dismissal of Eisner LLP and the engagement of Ernst & Young LLP were approved by the Audit Committee of our Board of Directors.

Eisner LLP did not provide audit reports on the financial statements of Axonyx Inc. or us for the two fiscal years ended December 31, 2007. During the fiscal year ended December 31, 2006 preceding the dismissal of Eisner LLP, there was no disagreement between Axonyx and Eisner LLP on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure which, if not resolved to Eisner LLP's satisfaction, would have caused Eisner LLP to make reference to the subject matter of the disagreement in connection with its reports on our financial statements; and for the same periods there were no reportable events as described in Item 304(a)(1)(v) of Regulation S-K.

Item 9A(T). Controls and Procedures.

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our Exchange Act reports 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 principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) under the Exchange Act, as of the end of the period covered by this Annual Report on Form 10-K. Based on this evaluation, our principal executive officer and our principal financial officer concluded that our disclosure controls and procedures were designed and operating effectively as of the end of the period covered by this Annual Report on Form 10-K.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) under the Exchange Act. Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of published financial statements in accordance with generally accepted accounting principles.

Our management, including our principal executive officer and our principal financial officer, does not expect that our disclosure controls and procedures or our internal controls over financial reporting will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the company have been detected.

Management conducted its evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2007 based on the framework in *Internal Control-Integrated Framework* Issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation under the framework in *Internal Control-Integrated Framework*, our management concluded that our internal control over financial reporting was effective as of December 31, 2007.

This annual report does not include an attestation report of our independent registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by our independent registered public accounting firm pursuant to temporary rules of the Securities and Exchange Commission that permit us to provide only management's report in this annual report.

Changes in Internal Control Over Financial Reporting

There has been no change in our internal control over financial reporting during the fourth quarter ended December 31, 2007 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The information required by this item will be set forth in the sections entitled "Election of Directors", "Executive Officers" and "Section 16(a) Beneficial Ownership Reporting Compliance" in our definitive proxy statement to be filed with the Securities and Exchange Commission in connection with the Annual Meeting of our Stockholders (the "Proxy Statement"), which is expected to be filed not later than 120 days after the end of our fiscal year ended December 31, 2007 and is incorporated in this report by reference.

Code of Business Conduct and Ethics

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.torreypinestherapeutics.com* under the Corporate Governance section of our Investor Center 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, Paul Schneider c/o TorreyPines Therapeutics, Inc., 11085 North Torrey Pines Road, Suite 300, San Diego, CA 92037.

Item 11. Executive Compensation.

The information required by this Item will be set forth 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 our Proxy Statement and is incorporated in this report by reference.

Information regarding our equity compensation plans will be set forth 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 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 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) *Financial Statements:*

The following financial statements of TorreyPines Therapeutics, Inc. are included in a separate section of this Annual Report on Form 10-K beginning on page F-1 hereto:

	Page
Consolidated Financial Statements of TorreyPines Therapeutics, Inc.	
Report of Independent Registered Public Accounting Firm	F-2
Consolidated Balance Sheets as of December 31, 2007 and 2006	F-3
Consolidated Statements of Operations for the Years Ended December 31, 2007, 2006 and 2005	F-4
Consolidated Statements of Stockholders' Equity (Deficit) for the Years Ended December 31, 2007, 2006 and 2005	F-5
Consolidated Statements of Cash Flows for the Years Ended December 31, 2007, 2006 and 2005	F-6
Notes to the Consolidated Financial Statements	F-7

(2) *Financial Statement Schedules:*

All schedules have been omitted, since they are not applicable or not required, or the relevant information is included in the consolidated financial statements or the notes thereto.

(3) *Exhibits:*

Exhibit No.	Description
2.1	Agreement and Plan of Merger and Reorganization, dated as of June 7, 2006, by and among Axonyx Inc., Autobahn Acquisition, Inc. and TorreyPines Therapeutics, Inc. (incorporated by reference to Annex A to Registration Statement No. 333-136018 filed with the Securities and Exchange Commission on July 25, 2006).
2.2	Amendment No. 1 to Agreement and Plan of Merger and Reorganization, dated as of August 25, 2006, by and among Axonyx Inc., Autobahn Acquisition, Inc. and TorreyPines Therapeutics, Inc. (incorporated by reference to Annex A to Amendment No. 1 to Registration Statement No. 333-136018 filed with the Securities and Exchange Commission on August 25, 2006).
3.1	Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K, filed on October 10, 2006).
3.2	Bylaws of the Registrant (incorporated by reference to Exhibit 3.2 to the Registrant's Current Report on Form 8-K, filed on October 10, 2006).
3.3	Certificate of Amendment filed with the Secretary of State of the State of Nevada effecting an 8-for-1 reverse stock of the Registrant's common stock and changing the name of the Registrant from Axonyx Inc. to TorreyPines Therapeutics, Inc. (incorporated by reference to Exhibit 3.3 to the Registrant's Current Report on Form 8-K, filed on October 10, 2006).
3.4	Articles of Conversion filed with the Secretary of State of the State of Nevada changing the state of incorporation of the Registrant (incorporated by reference to Exhibit 3.4 to the Registrant's Current Report on Form 8-K, filed on October 10, 2006).
3.5	Certificate of Conversion filed with the Secretary of State of the State of Delaware (incorporated by reference to Exhibit 3.5 to the Registrant's Current Report on Form 8-K, filed on October 10, 2006).
3.6	Amendment to Bylaws of the Registrant (incorporated by reference to Exhibit 3.6 to the Registrant's Annual Report on Form 10-K, filed on March 29, 2007).
4.1	Specimen common stock certificate of the Registrant (incorporated by reference to Exhibit 4.1 to the Registrant's Quarterly Report on Form 10-Q, filed on August 14, 2007).
4.2	Form of Warrant to Purchase Common Stock issued to previous holders of TPTX, Inc. redeemable convertible preferred stock in connection with the business combination between TorreyPines Therapeutics, Inc. and Axonyx, Inc. (incorporated by reference to Exhibit 4.2 to the Registrant's Annual Report on Form 10-K, filed on March 29, 2007).
4.3	Form of Common Stock Purchase Warrant (incorporated by reference to exhibit 4.3 to the Registrant's Annual Report on Form 10-KSB, filed on March 13, 2000).
4.4	Form of Registration Rights Agreement 1999 (incorporated by reference to Exhibit 4.4 to the Registrant's Annual Report on Form 10-KSB filed on March 13, 2000)
4.5	Form of Warrant issued to Stonegate Securities (incorporated by reference to the corresponding exhibit to the Registrant's Annual Report on Form 10-KSB, filed on March 22, 2001).
4.6	Form of Common Stock Purchase Warrant issued to purchasers in a private placement on December 6, 2001 (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K, filed on December 13, 2001).
4.7	Form of Warrant issued to SCO Financial Group, LLC (incorporated by reference to exhibit 4.5 to the Registrant's Registration Statement on Form S-3 (File No. 333-76234), filed on January 3, 2002).

Exhibit No.	Description
4.8	Form of Common Stock Purchase Warrant issued to purchasers in a private placement on January 6, 2003 (incorporated by reference to Exhibit 10.2 in the Registrant's Current Report on Form 8-K, filed on January 8, 2003).
4.9	Form of Warrant issued to AFO Advisors, LLC (incorporated by reference to Exhibit 4.2 in the Registrant's registration statement on Form S-3 (File No. 333-103130), filed on February 12, 2003).
4.10	Form of Common Stock Purchase Warrant issued to purchasers in a private placement on September 12, 2003 (incorporated by reference to Exhibit 10.2 in the Registrant's Current Report on Form 8-K, filed on September 16, 2003).
4.11	Form of Common Stock Purchase Warrant issued to purchasers in a private placement on January 8, 2004 (incorporated by reference to Exhibit 4.3 in the Registrant's Current Report on Form 8-K, filed on January 12, 2004).
4.12	Registration Rights Agreement dated as of January 8, 2004 between Axonyx Inc. and certain investors (incorporated by reference to Exhibit 4.2 to the Registrant's current report on Form 8-K, filed on January 12, 2004)
4.13	Registration Rights Agreement dated as of May 3, 2004, between Axonyx Inc. and certain investors (incorporated by reference to Exhibit 4.2 to the Registrant's current report on Form 8-K, filed on May 5, 2004)
4.14	Form of Warrant issued to Comerica Bank on July 1, 2003. (incorporated by reference to Exhibit 4.14 to the Registrant's Annual Report on Form 10-K, filed on March 29, 2007).
4.15	Form of Warrant issued to Silicon Valley Bank on December 8, 2000. (incorporated by reference to Exhibit 4.15 to the Registrant's Annual Report on Form 10-K, filed on March 29, 2007).
4.16	Form of Warrant issued to Oxford Financial and Silicon Valley Bank on September 27, 2005. (incorporated by reference to Exhibit 4.16 to the Registrant's Annual Report on Form 10-K, filed on March 29, 2007).
4.17	Rights Agreement, dated as of May 13, 2005, between the Registrant and American Stock Transfer & Trust Company (replacing The Nevada Agency and Trust Company), as Rights Agent (incorporated by reference to Exhibit 99.2 to the Registrant's Current Report on Form 8-K, filed on May 16, 2005)
4.18	Amendment to Rights Agreement, dated as of June 7, 2006, between the Registrant and Registrant and American Stock Transfer & Trust Company (replacing The Nevada Agency and Trust Company), as Rights Agent (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K, filed on June 12, 2006).
4.19	Amendment to Rights Agreement, dated as of October 3, 2006, between the Registrant and Registrant and American Stock Transfer & Trust Company (replacing The Nevada Agency and Trust Company), as Rights Agent. (incorporated by reference to Exhibit 4.19 to the Registrant's Annual Report on Form 10-K, filed on March 29, 2007).
4.20	Reference is made to Exhibits 3.1 through 3.6.
10.1#	TorreyPines Therapeutics, Inc. 2006 Equity Incentive Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed on October 4, 2006).
10.2#	Form of Stock Option Agreement under TorreyPines Therapeutics, Inc. 2006 Equity Incentive Plan (incorporated by reference to Exhibit 10.9 to the Registrant's Current Report on Form 8-K, filed on October 14, 2006).

Exhibit No.	Description
10.3*	Development and License Agreement between TPTX, Inc. (formerly Neurogenetics, Inc.) and Eli Lilly and Company, effective as of April 21, 2003 (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed on October 10, 2006).
10.4*	Research and License Agreement by and between TPTX, Inc. and Life Science Research Israel Ltd. dated as of May 10, 2004 (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K, filed on October 10, 2006).
10.5*	Cooperation Agreement by and between TPTX, Inc. and Eisai Co. Ltd. dated as of October 1, 2005 (incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K, filed on October 10, 2006).
10.6*	Collaboration Agreement by and between TPTX, Inc. and Eisai Co. Ltd. dated as of February 28, 2005 (incorporated by reference to Exhibit 10.4 to the Registrant's Current Report on Form 8-K, filed on October 10, 2006).
10.7*	License Agreement by and between TPTX, Inc. and University of Iowa Research Foundation dated as of May 10, 2006 (incorporated by reference to Exhibit 10.5 to the Registrant's Current Report on Form 8-K, filed on October 10, 2006).
10.8*	Letter Agreement by and between TPTX, Inc. and Johnson and Johnson Development Corporation dated as of August 24, 2004 (incorporated by reference to Exhibit 10.6 to the Registrant's Current Report on Form 8-K, filed on October 10, 2006).
10.9	Loan and Security Agreement dated as of September 27, 2005 by and among TPTX, Inc., Oxford Finance Corporation and Silicon Valley Bank (incorporated by reference to Exhibit 10.7 to the Registrant's Current Report on Form 8-K, filed on October 10, 2006).
10.10#	TPTX, Inc. 2000 Equity Incentive Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed on October 10, 2006).
10.11#	Form of Stock Option Agreement under TPTX, Inc. 2000 Equity Incentive Plan (incorporated by reference to Exhibit 10.9 to the Registrant's Current Report on Form 8-K, filed on October 10, 2006).
10.12	Lease Agreement by and between TPTX, Inc. and Slough TPSP LLC dated as of July 18, 2005, which became effective February 10, 2006 (incorporated by reference to Exhibit 10.10 to the Registrant's Current Report on Form 8-K, filed on October 10, 2006).
10.13	Form of Indemnity Agreement (incorporated by reference to Exhibit 10.13 to the Registrant's Current Report on Form 8-K, filed on October 10, 2006).
10.14#	Employment Agreements by and between Neil M. Kurtz, M.D. and TorreyPines Therapeutics, Inc. dated December 14, 2006 (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed on December 20, 2006).
10.15#	Employment Agreements by and between Evelyn Graham and TorreyPines Therapeutics, Inc. dated December 14, 2006 (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K, filed on December 20, 2006).
10.16#	Employment Agreements by and between Craig Johnson and TorreyPines Therapeutics, Inc. dated December 14, 2006 (incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K, filed on December 20, 2006).
10.17#	Form of Restricted Stock Unit Award Agreement under TorreyPines Therapeutics, Inc. 2006 Equity Incentive Plan. (incorporated by reference to Exhibit 10.17 to the Registrant's Annual Report on Form 10-K, filed on March 29, 2007).

Exhibit No.	Description
16	Letter from Eisner LLP to the Securities and Exchange Commission, dated December 13, 2006 (incorporated by reference to Exhibit 16 to the Registrant's Current Report on Form 8-K, filed on December 13, 2006).
21.1	List of Subsidiaries of the Registrant
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C Section 1350, adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
23.1	Consent of Independent Registered Public Accounting Firm
24.1	Power of Attorney (See p. 58)
31.1	Certification of Chief Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C Section 1350, adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

# Indicates management contract or compensatory plan or arrangement

* Portions of this exhibit have been granted confidential treatment pursuant to an order granted by the SEC. The confidential portions of this exhibit are marked by an asterisk and have been omitted and filed separately with the SEC pursuant to our request for confidential treatment.

SIGNATURES

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

TORREYPINES THERAPEUTICS, INC.

By: /s/ NEIL M. KURTZ
Neil M. Kurtz, M.D.
President and Chief Executive Officer

Date: March 31, 2008

KNOW ALL PERSONS BY THESE PRESENTS, that each individual whose signature appears below constitutes and appoints Neil M. Kurtz and Craig Johnson, 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 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.

Signature	Title	Date
/s/ NEIL M. KURTZ Neil M. Kurtz, M.D.	President, Chief Executive Officer and Director *(Principal Executive Officer)*	March 31, 2008
/s/ CRAIG JOHNSON Craig Johnson	Vice President, Finance and Chief Financial Officer *(Principal Financial and Accounting Officer)*	March 31, 2008
/s/ PETER DAVIS Peter Davis, Ph.D.	Director	March 31, 2008
/s/ JEAN DELEAGE Jean Deleage, Ph.D.	Director	March 31, 2008
/s/ STEVEN H. FERRIS Steven H. Ferris, Ph.D.	Director	March 31, 2008
/s/ JASON FISHERMAN Jason Fisherman, M.D	Director	March 31, 2008
/s/ STEVEN B. RATOFF Steven B. Ratoff	Director	March 31, 2008
/s/ PATRICK VAN BENEDEN Patrick Van Beneden	Director	March 31, 2008

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
TorreyPines Therapeutics, Inc.

We have audited the accompanying consolidated balance sheets of TorreyPines Therapeutics, Inc. as of December 31, 2007 and 2006, and the related consolidated statements of operations, stockholders' equity (deficit), and cash flows for each of the three years in the period ended December 31, 2007. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

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. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes 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. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of TorreyPines Therapeutics, Inc. at December 31, 2007 and 2006, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2007, in conformity with U.S. generally accepted accounting principles.

As discussed in Note 1 to the consolidated financial statements, the Company changed its method of accounting for Share-Based Payments in accordance with Statement of Financial Accounting Standards No. 123 (revised 2004) on January 1, 2006.

/s/ ERNST & YOUNG LLP

San Diego, California
March 28, 2008

TorreyPines Therapeutics, Inc.
Consolidated Balance Sheets
(in thousands, except share and per share data)

	December 31, 2007	December 31, 2006
Assets		
Current assets		
Cash and cash equivalents	$ 32,500	$ 55,383
Prepaid expenses and other current assets	835	581
Total current assets	33,335	55,964
Property and equipment, net	774	796
Purchased patents, net	3,515	3,906
Investment in OXIS International, Inc.	979	2,719
Other assets	49	50
Total assets	$ 38,652	$ 63,435
Liabilities and stockholders' equity		
Current liabilities		
Accounts payable and accrued liabilities	$ 5,462	$ 4,254
Long-term debt, current portion	3,574	3,201
Common stock warrant liability	—	4,815
Total current liabilities	9,036	12,270
Long-term debt, net of current portion	954	4,397
Deferred revenue	2,183	2,183
Deferred rent	19	16
Total liabilities	12,192	18,866
Commitments		
Stockholders' equity		
Preferred stock, $0.001 par value, 15,000,000 shares authorized, 0 shares outstanding at December 31, 2007 and 2006, respectively	—	—
Common stock, $0.001 par value, 150,000,000 shares authorized, 15,738,496 and 15,676,964 shares issued and outstanding at December 31, 2007 and 2006, respectively	16	16
Additional paid-in capital	122,359	117,417
Accumulated other comprehensive income	486	168
Accumulated deficit	(96,401)	(73,032)
Total stockholders' equity	26,460	44,569
Total liabilities and stockholders' equity	$ 38,652	$ 63,435

See accompanying notes.

TorreyPines Therapeutics, Inc.
Consolidated Statements of Operations
(in thousands, except share and per share data)

	Years Ended December 31,		
	2007	2006	2005
Revenue			
License and option fees	$ 6,800	$ 6,800	$ 5,179
Research funding	3,050	3,050	2,788
Total revenue	9,850	9,850	7,967
Operating expenses			
Research and development	27,977	22,353	17,317
General and administrative	5,643	3,971	2,588
Purchased in-process research and development	—	8,328	—
Total operating expenses	33,620	34,652	19,905
Loss from operations	(23,770)	(24,802)	(11,938)
Other income (expense)			
Interest income	2,069	1,559	774
Interest expense	(817)	(994)	(290)
Equity in income (loss) of OXIS International, Inc.	141	(916)	—
Impairment of equity investment in OXIS International, Inc.	(1,881)	—	—
Warrant valuation adjustment	892	(240)	—
Foreign exchange gain	1	15	—
Gain (loss) on asset disposal	(4)	1	(88)
Total other income (expense)	401	(575)	396
Net loss	(23,369)	(25,377)	(11,542)
Dividends and accretion to redemption value of redeemable convertible preferred stock	—	—	(4,434)
Net loss attributable to common stockholders	$ (23,369)	$ (25,377)	$ (15,976)
Basic and diluted net loss per share attributable to common stockholders	$ (1.49)	$ (8.18)	$ (30.69)
Weighted average shares used in the computation of basic and diluted net loss per share attributable to common stockholders	15,717,984	3,100,852	520,588

See accompanying notes.

TorreyPines Therapeutics, Inc.
Consolidated Statements of Stockholders' Equity (Deficit)
(in thousands, except share and per share data)

	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' (Deficit) Equity
Balance at December 31, 2004	503,864	1	469	24	(42,874)	(42,380)
Issuance of common stock for exercise of options	31,447	—	30	—	—	30
Dividends accrued on redeemable convertible preferred stock	—	—	—	—	(4,105)	(4,105)
Accrete redeemable convertible preferred stock to redemption value	—	—	—	—	(329)	(329)
Warrant issued in conjunction with debt	—	—	212	—	—	212
Compensation related to consultant stock options	—	—	8	—	—	8
Net loss	—	—	—	—	(11,542)	(11,542)
Foreign currency translation adjustments	—	—	—	(235)	—	(235)
Comprehensive loss	—	—	—	—	—	(11,777)
Balance at December 31, 2005	535,311	$ 1	$ 719	$ (211)	$ (58,850)	$ (58,341)
Issuance of common stock for exercise of options	329,965	—	331	—	—	331
Issuance of common stock for exercise of warrants	143,845	—	9	—	—	9
Dividends accrued on redeemable convertible preferred stock	—	—	—	—	(3,371)	(3,371)
Accrete redeemable convertible preferred stock to redemption value	—	—	—	—	(205)	(205)
Warrant issued in conjunction with debt	—	—	213	—	—	213
Employee stock-based compensation under SFAS No. 123R	—	—	119	—	—	119
Compensation related to consultant stock options			20	—	—	20
Additional accretion to redemption value upon conversion of redeemable convertible preferred stock	—	—	—	—	(342)	(342)
Reversal of redeemable convertible preferred stock dividends upon conversion to common stock	—	—	—	—	13,958	13,958
Redeemable convertible preferred stock converted to common stock	7,958,059	8	67,137	—	1,155	68,300
Effect of Merger	6,709,784	7	53,444	—	—	53,451
Issuance of warrants in connection with Merger	—	—	(4,575)	—	—	(4,575)
Net loss	—	—	—	—	(25,377)	(25,377)
Foreign currency translation adjustments	—	—	—	379	—	379
Comprehensive loss	—	—	—	—	—	(24,998)
Balance at December 31, 2006	15,676,964	$ 16	$ 117,417	$ 168	$ (73,032)	$ 44,569
Issuance of common stock for exercise of options	61,532	—	50	—	—	50
Employee stock-based compensation under SFAS No. 123R	—	—	730	—	—	730
Compensation related to consultant stock options	—	—	240	—	—	240
Reclassification of fair value of warrants from current liabilities to Additional paid-in capital upon receipt of warrant clarification letters	—	—	3,922	—	—	3,922
Net loss	—	—	—	—	(23,369)	(23,369)
Foreign currency translation adjustments	—	—	—	318	—	318
Comprehensive loss	—	—	—	—	—	(23,051)
Balance at December 31, 2007	15,738,496	$ 16	$ 122,359	$ 486	$ (96,401)	$ 26,460

See accompanying notes.

TorreyPines Therapeutics, Inc.
Consolidated Statements of Cash Flows
(in thousands)

	Years Ended December 31,		
	2007	2006	2005
Operating activities			
Net loss	$ (23,369)	$ (25,377)	$ (11,542)
Adjustments to reconcile net loss to net cash used in operating activities:			
Purchased in-process research and development	—	8,328	—
Depreciation	369	639	959
Stock-based compensation	970	139	8
Amortization of debt discount	132	114	56
Amortization of purchased patents	391	95	—
Deferred rent	3	16	—
Deferred revenue	—	(6,800)	8,421
(Gain) loss on disposal of assets	4	(1)	88
Equity in (income) loss of OXIS International, Inc.	(141)	916	—
Impairment of equity investment in OXIS International, Inc.	1,881	—	—
Change in warrant valuation	(892)	240	—
Changes in operating assets and liabilities:			
Prepaid expenses and other current assets	(247)	208	(407)
Other assets	—	330	(275)
Accounts payable and accrued liabilities	1,205	(5,694)	1,781
Net cash used in operating activities	(19,694)	(26,847)	(911)
Investing activities			
Proceeds from sale of investments obtained in the Merger	—	45,300	—
Cash paid for Merger transaction costs, net of cash received	—	(1,629)	—
Purchases of property and equipment	(351)	(134)	(702)
Net cash provided by (used in) investing activities	(351)	43,537	(702)
Financing activities			
Issuance of common stock upon exercise of options and warrants	50	340	30
Issuance of redeemable convertible preferred stock, net	—	6,322	—
Proceeds from long-term debt	—	5,000	5,000
Payments on long-term debt	(3,201)	(2,106)	(2,301)
Net cash provided by (used in) financing activities	(3,151)	9,556	2,729
Effect of exchange rate changes on cash	313	380	12
Net increase (decrease) in cash and cash equivalents	(22,883)	26,626	1,128
Cash and cash equivalents at beginning of year	55,383	28,757	27,629
Cash and cash equivalents at end of year	$ 32,500	$ 55,383	$ 28,757
Supplemental disclosure of cash flow information			
Cash paid for interest	$ 686	$ 880	$ 234
Warrant issued in conjunction with debt	$ —	$ 213	$ 213
Noncash purchases of property and equipment	$ —	$ 3	$ 95

See accompanying notes.

1. Organization and Summary of Significant Accounting Policies

Organization and Business

Prior to October 3, 2006 the name of the company was Axonyx Inc. ("Axonyx"). On October 3, 2006, Axonyx completed a merger with TorreyPines Therapeutics, Inc. pursuant to which a wholly-owned subsidiary of Axonyx merged with and into TorreyPines Therapeutics, Inc. (the "Merger"). TorreyPines Therapeutics, Inc. was the surviving entity in the Merger, and became a wholly owned subsidiary of Axonyx. TorreyPines Therapeutics, Inc. changed its name to TPTX, Inc., and Axonyx changed its name to TorreyPines Therapeutics, Inc. ("TorreyPines"). The Merger has been accounted for as a reverse acquisition. These financial statements reflect the historical results of TPTX, Inc. prior to the Merger and that of the combined company following the Merger, and do not include the historical results of Axonyx prior to the completion of the Merger. All share and per share disclosures have been retroactively adjusted to reflect the exchange of shares in the Merger, and the 8-for-1 reverse split of our common stock on October 3, 2006. All references to "TorreyPines," "we," "us" or "our" mean TorreyPines Therapeutics, Inc. and its subsidiaries, except where it is made clear that the term means only the parent company.

TorreyPines Therapeutics, Inc. is a biopharmaceutical company committed to providing patients with better alternatives to existing therapies through the research, development and commercialization of small molecule compounds. Our goal is to develop versatile product candidates each capable of treating a number of acute and chronic diseases and disorders such as migraine, chronic pain, muscle spasticity and rigidity, xerostomia and cognitive disorders. TorreyPines is a Delaware corporation and operates in one business segment. Since inception, and through December 31, 2007, we have an accumulated deficit of $96.4 million.

Basis of Consolidation

The accompanying consolidated financial statements include the accounts of TorreyPines Therapeutics, Inc., TPTX, Inc. and our wholly owned subsidiaries located in Belgium and the Netherlands. The Netherlands subsidiary was acquired in the Merger and the operations of the Netherlands subsidiary were discontinued in November 2006. All significant intercompany accounts and transactions are eliminated in consolidation.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent 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 those estimates.

Cash and Cash Equivalents

Cash and cash equivalents consist of cash and highly liquid investments with original maturities of three months or less when purchased.

Property and Equipment

Property and equipment is stated at cost less accumulated depreciation. Depreciation is calculated using the straight-line method over the estimated useful lives of the assets. The estimated useful life for lab equipment and furniture, fixtures and office equipment is five years and the estimated useful life for computer equipment and software is three years.

1. Organization and Summary of Significant Accounting Policies (Continued)

Fair Value of Financial Instruments

Our financial instruments, including cash, cash equivalents, accounts payable and accrued liabilities, are carried at cost which approximates fair value due to the relative short-term maturities of these instruments. Based on the borrowing rates currently available to us for debt with similar terms, we believe the fair value of the long-term debt approximates its carrying value.

Purchased Patents

Purchased patents are comprised of patents acquired in the Merger. The patents are amortized on a straight-line basis using the following lives:

Patent	Life (years)
Phenserine	8
Posiphen	12
Bisnorcymserine	10

The weighted average life of the patents equals 10.6 years. Amortization expense for the years ended December 31, 2007, 2006 and 2005 was $391,000, $95,000 and $0, respectively.

Revenue Recognition

We recognize revenue when all four of the following criteria are met: (i) persuasive evidence that an arrangement exists; (ii) delivery of the products and/or services has occurred; (iii) the selling price is fixed or determinable; and (iv) collectibility is reasonably assured. We follow the provisions of the Securities and Exchange Commission's Staff Accounting Bulletin ("SAB") 104, *Revenue Recognition*, which sets forth guidelines in the timing of revenue recognition based upon factors such as passage of title, installation, payment and customer acceptance.

Upfront amounts received as option fees and license fees under our alliance and collaboration agreements are classified as deferred revenue and recognized as revenue over the period of service or performance if such arrangements require on-going services or performance. Amounts received for milestones will be recognized upon achievement of the milestone, unless the amounts received are creditable against royalties or we have on-going performance obligations. Royalty revenue will be recognized upon sale of the related products, provided the royalty amounts are fixed and determinable, and collection of the related receivable is probable. Any amounts received prior to satisfying the revenue recognition criteria will be recorded as deferred revenue in the accompanying balance sheets.

Research and Development

Research and development costs are expensed as incurred.

Comprehensive Income or Loss

Statement of Financial Accounting Standards ("SFAS") No. 130, *Reporting Comprehensive Income*, requires that all components of comprehensive income, including net income or loss and foreign currency translation adjustments, be reported in the financial statements in the period in which they are recognized. Comprehensive income or loss is defined as the change in equity during a period from transactions and other events and circumstances from non-owner sources.

1. Organization and Summary of Significant Accounting Policies (Continued)

Long-Lived Assets

In accordance with SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*, we assess the recoverability of the affected long-lived assets, including intangible assets, by determining whether the carrying value of such assets can be recovered through undiscounted future operating cash flows. If impairment is indicated, we measure the amount of such impairment by comparing the fair value to the carrying value. There have been no indicators of impairment through December 31, 2007.

Stock-Based Compensation

Effective January 1, 2006, we adopted SFAS No. 123 (revised 2004) ("SFAS No.123R"), *Share Based Payment*, which supersedes our previous accounting under SFAS No. 123, *Accounting for Stock-Based Compensation*. SFAS No.123R requires the recognition of compensation expense, using a fair-value based method, for costs related to all share-based payments to employees, including grants of stock options. SFAS No.123R requires companies to estimate the fair value of share-based payment awards on the date of grant using an option-pricing model. The Black-Scholes model has been used to determine the fair value for our option awards and the Monte-Carlo simulation option-pricing model has been used to determine the fair value of our restricted stock unit awards. The value of the portion of the award that is ultimately expected to vest is recognized as expense over the service period in the statements of operations. We adopted SFAS No.123R using the modified prospective transition method which recognizes the grant-date fair value of compensation for new and unvested awards beginning in the fiscal period in which the recognition provisions are first applied. Pro-forma disclosure, which we previously used, is no longer an alternative. The modified prospective transition method does not require the restatement of prior periods to reflect the impact of SFAS No.123R.

Equity Method of Accounting for Investments in Common Stock

We account for our investment in OXIS International, Inc. ("OXIS") under the equity method of accounting following Accounting Principles Bulletin No. 18. An impairment charge would be required if we determined that any reduction in the OXIS market value over the carrying value was other than temporary. For the year ended December 31, 2007, we recorded an impairment charge of $1.9 million. See Note 4.

Income Taxes

We account for income taxes and the related assets and liabilities in accordance with SFAS No. 109, *Accounting for Income Taxes*. Deferred tax assets and liabilities are determined based on the difference between the financial statement and tax basis of assets and liabilities using enacted rates expected to be in effect during the year in which the differences reverse. We provide a valuation allowance against net deferred tax assets unless, based upon the available evidence, it is more likely than not that the deferred tax assets will be realized.

Foreign Currency Translation and Transactions

The functional currencies of our subsidiaries in Belgium and the Netherlands are the local currencies. The operations of the Netherlands subsidiary were discontinued in November 2006. Assets and liabilities of these subsidiaries are translated at the rate of exchange at the balance sheet date. Income and expense items are translated at the average rate of exchange rates in effect during the reporting period. Gains and losses resulting from foreign currency translation are included as a component of stockholders' equity (deficit). Foreign currency transaction gains and losses are included in the results of operations. Realized foreign exchange gains for the years ended December 31, 2007, 2006 and 2005 were $1,000, $15,000 and $0, respectively.

1. Organization and Summary of Significant Accounting Policies (Continued)

Net Loss per Share

We calculate net loss per share in accordance with SFAS No. 128, *Earnings Per Share*. Net loss per share is computed on the basis of the weighted-average number of common shares outstanding during the periods presented. Loss per share assuming dilution is computed on the basis of the weighted-average number of common shares outstanding and the dilutive effect of all common stock equivalents. Net loss per share attributable to common stockholders assuming dilution for the years ended December 31, 2007, 2006 and 2005 is equal to net loss per share attributable to common stockholders since the effect of common stock equivalents outstanding during the periods, including stock options, restricted stock units, warrants and redeemable convertible preferred stock, is antidilutive.

Shares used in calculating basic and diluted net loss per common share exclude these potential common shares (in thousands):

	Years Ended December 31,		
	2007	2006	2005
Antidilutive options to purchase common stock	1,606	1,408	856
Antidilutive warrants to purchase common stock	2,410	2,464	199
Antidilutive restricted stock units	195	155	—
Antidilutive redeemable convertible preferred stock (as-if converted to common stock)	—	—	7,268
	4,211	4,027	8,323

Recently Issued Accounting Standards

In September 2006, the Financial Accounting Standards Board ("FASB") issued SFAS No. 157, *Fair Value Measurements*, which provides a single definition of fair value, a framework for measuring fair value, and expanded disclosures concerning fair value. Previously, different definitions of fair value were contained in various accounting pronouncements creating inconsistencies in measurement and disclosures. SFAS No. 157 applies under those previously issued pronouncements that prescribe fair value as the relevant measure of value, except Statement No. 123R and related interpretations and pronouncements that require or permit measurement similar to fair value but are not intended to measure fair value. This pronouncement is effective for fiscal years beginning after November 15, 2007. We do not expect the adoption of SFAS No. 157 to have a material impact on our consolidated financial statements.

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities—Including an Amendment of FASB Statement No. 115.* This standard permits an entity to choose to measure many financial instruments and certain other items at fair value. Most of the provisions in SFAS No. 159 are elective; however, the amendment to SFAS No. 115, *Accounting for Certain Investments in Debt and Equity Securities,* applies to all entities with available-for-sale and trading securities. The fair value option established by SFAS No. 159 permits all entities to choose to measure eligible items at fair value at specified election dates. A business entity will report unrealized gains and losses on items for which the fair value option has been elected in earnings (or another performance indicator if the business entity does not report earnings) at each subsequent reporting date. The fair value option: (a) may be applied instrument by instrument, with a few exceptions, such as investments otherwise accounted for by the equity method; (b) is irrevocable (unless a new election date occurs); and (c) is applied only to entire instruments and not to portions of instruments. SFAS No. 159 is effective as of the beginning of an entity's first fiscal year that begins after November 15, 2007. We do not expect the adoption of SFAS No. 159 to have a material impact on our consolidated financial statements.

1. Organization and Summary of Significant Accounting Policies (Continued)

In June 2007, the Emerging Issues Task Force ("EITF") issued EITF Issue No. 07-3, *Accounting for Nonrefundable Advance Payments for Goods or Services to be Used in Future Research and Development Activities*. EITF Issue No. 07-3 requires companies to defer and capitalize prepaid, nonrefundable research and development payments to third parties over the period that the research and development activities are performed or the services are provided, subject to an assessment of recoverability. EITF Issue No. 07-3 is effective for new contracts entered into in fiscal years beginning after December 15, 2007, including interim periods within those fiscal years. We do not expect the adoption of EITF Issue No. 07-3 to have a material impact on our financial statements.

In November 2007, the EITF issued EITF Issue No. 07-1, *Accounting for Collaborative Arrangements Related to the Development and Commercialization of Intellectual Property*. Companies may enter into arrangements with other companies to jointly develop, manufacture, distribute, and market a product. Often the activities associated with these arrangements are conducted by the collaborators without the creation of a separate legal entity (that is, the arrangement is operated as a "virtual joint venture"). The arrangements generally provide that the collaborators will share, based on contractually defined calculations, the profits or losses from the associated activities. Periodically, the collaborators share financial information related to product revenues generated (if any) and costs incurred that may trigger a sharing payment for the combined profits or losses. The consensus requires collaborators in such an arrangement to present the result of activities for which they act as the principal on a gross basis and report any payments received from (made to) other collaborators based on other applicable GAAP or, in the absence of other applicable GAAP, based on analogy to authoritative accounting literature or a reasonable, rational, and consistently applied accounting policy election. EITF Issue No. 07-1 is effective for collaborative arrangements in place at the beginning of the annual period beginning after December 15, 2008. As our collaborative agreements do not incorporate such revenue- and cost-sharing arrangements, we do not expect the adoption of EITF Issue No. 07-1 to have a material impact on our financial statements.

2. Merger

As described in Note 1, we completed the Merger on October 3, 2006. Pursuant to the Merger, stockholders of TPTX, Inc. exchanged their shares of TPTX, Inc. stock for a total of approximately 9.0 million shares of TorreyPines common stock and a total of 1.5 million warrants to purchase TorreyPines common stock. Immediately following the Merger, approximately 58% of the fully-diluted shares of TorreyPines common stock were owned by former stockholders of TPTX, Inc. According to SFAS No. 141, *Business Combinations*, TPTX, Inc. was the acquiring entity for accounting purposes, and the Merger was accounted for as a reverse acquisition.

The purchase price was approximately $56.3 million. The purchase price was determined based on the average market price of Axonyx stock over the five consecutive trading days around and including June 7, 2006, the date on which the terms of the Merger were agreed to and announced. The total purchase price of the Merger was as follows (in thousands):

Fair value of Axonyx outstanding common stock	$ 50,889
Fair value of Axonyx stock options and stock warrants assumed	2,562
Cash paid by TPTX, Inc. for direct transaction costs	2,870
Total purchase price	$ 56,321

2. Merger (Continued)

Under the purchase method of accounting, the total purchase price was allocated to the net tangible and identifiable intangible assets acquired and liabilities assumed based on their fair values as of October 3, 2006. The allocation of the purchase price is as follows (in thousands):

Cash and cash equivalents	$ 1,241
Short-term investments	45,300
Investment in OXIS	3,635
Other assets	121
Purchased in-process research and development	8,328
Purchased patents	4,000
Current liabilities	(6,304)
	$ 56,321

The intangible assets acquired in the Merger were purchased in-process research and development and purchased patents. These intangible assets were valued with the assistance of independent valuation experts, using the income approach. The value assigned to purchased in-process research and development is comprised of the following two projects, both related to the potential treatment of Alzheimer's disease: Phenserine valued at $3.0 million and Posiphen valued at $5.3 million. The purchased in-process research and development was expensed upon acquisition because the projects had not reached technological feasibility and the projects did not have a future alternative use. The value assigned to purchased patents is comprised of the following patents: Phenserine valued at $1.3 million, Posiphen valued at $2.5 million and bisnorcymserine valued at $0.2 million. The purchased patents were capitalized upon acquisition because they have future alternative use for the potential treatment of diseases and disorders other than Alzheimer's disease.

The following unaudited pro forma information presents a summary of our consolidated results of operations as if the Merger had taken place as of January 1, 2005 (in thousands, except per share information):

	December 31,	
	2006	2005
Revenues	$ 9,850	$ 8,370
Net loss attributable to common stockholders	(42,036)	(40,156)
Pro forma basic and diluted loss per share	$ (3.11)	$ (2.64)
Weighted average shares-basic and diluted	13,524,000	15,200,000

The unaudited pro forma results of operations are not necessarily indicative of what would have occurred had the Merger been completed at the beginning of the respective periods or of the results that may occur in the future.

3. Balance Sheet Account Details

Prepaid expenses and other current assets consist of the following (in thousands):

	December 31,	
	2007	2006
Prepaid expenses	$ 746	$ 545
Non trade receivables	81	21
Deposits	8	15
	$ 835	$ 581

3. Balance Sheet Account Details (Continued)

Property and equipment consist of the following (in thousands):

	December 31, 2007	December 31, 2006
Lab equipment	$ 3,808	$ 4,180
Computer equipment and software	782	784
Furniture and fixtures and office equipment	363	312
	4,953	5,276
Less accumulated depreciation	(4,179)	(4,480)
	$ 774	$ 796

Patents acquired consist of the following (in thousands):

	December 31, 2007	December 31, 2006
Purchased patents	$ 4,000	$ 4,000
Less accumulated amortization	(485)	(94)
	$ 3,515	$ 3,906

The estimated annual amortization of patents acquired for the next five years is shown in the following table (in thousands). Actual amortization expense to be reported in future periods could differ from these estimates as a result of acquisitions, divestitures, asset impairments and other factors.

Year	Estimated Amortization Expense
2008	$ 391
2009	391
2010	391
2011	391
2012	391
Thereafter	1,560
	$ 3,515

Accounts payable and accrued liabilities consist of the following (in thousands):

	December 31, 2007	December 31, 2006
Accounts payable	$ 2,543	$ 2,003
Accrued benefits	891	1,032
Accrued other	2,028	1,219
	$ 5,462	$ 4,254

4. Investment in OXIS

Our investment in OXIS consists of approximately 14 million shares of OXIS common stock, representing approximately 30% of the outstanding voting stock of OXIS. The investment in OXIS was acquired in the Merger (see Note 2). For the last six months of 2007 the recorded value of our investment in OXIS was greater than its fair value. As a result, we determined the impairment of value was other than temporary, and therefore wrote down the investment to its fair value at December 31, 2007. This resulted in an impairment charge of $1.9 million. This impairment charge is included in the consolidated statements of operations as impairment of equity method investment. The fair value of the investment was determined based upon the December 31, 2007 Over-The-Counter Bulletin Board quoted price for OXIS common stock.

5. Significant Agreements

Eisai Co., Ltd.

In October 2002, we signed a collaboration agreement with Eisai Co., Ltd. ("Eisai"). Under this collaboration, we granted to Eisai a first negotiation right to license, collaborate, form alliances, form partnerships and all other forms of utilization of certain of our intellectual property. In exchange for these rights, we received a total of $10,350,000 under the agreement. This collaboration agreement expired in September 2005.

In February 2005, we signed a collaboration agreement with Eisai. Under this agreement, Eisai had an exclusive right of first negotiation and refusal for validated compounds discovered through the research. In exchange for these rights, we have received $15,000,000 under the agreement. This collaboration agreement expired in February 2008.

In October 2005, we signed a collaboration agreement with Eisai. Under this agreement, Eisai will have exclusive rights of first negotiation and refusal for gene targets discovered and validated through the research. In exchange for these rights, we have received $12,263,000 under the agreement. This agreement expired in September 2007 and was extended for an additional twelve months through September 2008.

The upfront payments for all agreements are being recognized as revenue on a straight-line basis over the term of each agreement. Revenue associated with the full-time employees we committed to the project is recognized as research efforts are expended.

We have recognized revenue of $9,850,000, $9,850,000 and $7,967,000 for each year ended December 31, 2007, 2006 and 2005, respectively, and have deferred revenues of $2,183,000 and $2,183,000 related to option fees and research funding received but not earned as of December 31, 2007 and 2006, respectively.

Eli Lilly and Company

In April 2003, we signed a license agreement with Eli Lilly and Company ("Lilly"). Under the agreement, we paid Lilly a $6,000,000 license payment in 2003. We are also subject to certain milestone and royalty payments as specified in the agreement. During the twelve months ended December 31, 2007, we expensed $1.0 million in connection with milestones specified in the agreement.

Life Science Research Israel, Ltd.

In May 2004, we entered into a research and license agreement with Life Science Research Israel, Ltd. ("LSRI"). Under the agreement, we were required to make research funding payments to LSRI totaling $800,000 over a two-year period. Through December 31, 2007, we had made payments totaling $800,000. We are also subject to certain milestone and royalty payments as specified in the agreement. Through December 31, 2007, we had made payments totaling $2,150,000.

6. Long-Term Debt

Our notes payable to banks represent loan and security agreements and are collateralized by all of our personal property, excluding intellectual property. The annual interest rate on the notes payable is 11.39%. Payments on the notes are due monthly. The notes payable and unamortized discount balances as of December 31, 2007 and 2006 are shown below (in thousands):

	December 31,	
	2007	2006
Total notes payable	4,692	7,894
Less unamortized discount	(164)	(296)
Total long-term debt	4,528	7,598
Less current portion	(3,574)	(3,201)
Non-current portion	$ 954	$ 4,397

In 2005 we entered into two notes that allowed us to borrow up to $10.0 million. In 2005 we borrowed an initial $5.0 million under these notes and in 2006 we borrowed the remaining $5.0 million. The notes are payable in monthly installments of principal and interest.

In connection with each of the 2005 and 2006 borrowings, we issued warrants to purchase 59,544 shares of Series C Redeemable Convertible Preferred stock at an exercise price of $9.24 per share. The warrants were valued using the Black-Scholes model assuming a risk-free interest rate of 5.6%, a dividend yield of 0%, expected volatility of 65% and an expected life of the warrants of ten years. The warrants were recorded as a debt discount at a fair value of $424,000. The aggregate unamortized debt discount as of December 31, 2007 was $164,000. The debt discount is being amortized as additional interest expense over the term of the loan. As a result of the Merger (see Note 2), the class of stock underlying the warrants changed to common stock. The equivalent warrant price, issue date and number of warrants are unchanged, therefore the amount of recorded debt discount recorded for these warrants was unchanged.

Pursuant to the terms of the agreement, we are subject to a Material Adverse Change clause, which permits the holder of the note to call the balance if a Material Adverse Change occurs. A Material Adverse Change is defined as, (i) a material impairment in the perfection or priority of lenders' security interest in the collateral or in the value of such collateral; (ii) a material adverse change in the business, operations, or condition (financial or otherwise) of the borrower; or (iii) a material impairment of the prospect of repayment of any portion of the obligations. Through December 31, 2007, we have not had a Material Adverse Change.

In accordance with this loan and security agreement, we are subject to certain non-financial covenants. We were in compliance with all covenants at December 31, 2007.

Annual debt maturities at December 31, 2007, are as follows (in thousands):

2008	$ 3,574
2009	1,118
2010 and thereafter	—
	$ 4,692

7. Commitments

We lease our office and research facilities under a noncancelable operating lease, which expires in 2009. The lease requires us to pay for all maintenance, insurance and property taxes. Rent expense for the years ended December 31, 2007, 2006 and 2005, was $612,000, $666,000 and $709,000, respectively. There were no outstanding purchase commitments in existence as of December 31, 2007.

Future minimum payments of all operating leases are as follows at December 31, 2007 (in thousands):

2008	$	628
2009		105
2010 and thereafter		—
Total minimum lease payments	$	733

8. Redeemable Convertible Preferred Stock

Beginning in 2000 and continuing until 2006, we issued redeemable convertible preferred stock which was convertible at the option of the holder on a one-for-one basis into shares of common stock. The holder of each share of redeemable convertible preferred stock was entitled to one vote for each share of common stock into which it would have converted.

We increased the carrying amount of the redeemable convertible preferred stock by periodic accretions related to offering costs and the fair value of the warrants and the related beneficial conversion feature, so that the carrying amount would have equaled the minimum redemption value on the earliest redemption date. Increases in the carrying amount of the redeemable convertible preferred stock were recorded as increases in our accumulated deficit.

Holders of the redeemable convertible preferred stock had parity with holders of common stock on an as-if converted basis for all dividends declared by the Board of Directors. Holders of the redeemable convertible preferred stock were entitled to cash dividends, which accrued at the rate of 6% of the applicable original issue price per annum, compounded annually. The dividends were cumulative and payable when and if declared by the Board of Directors.

In the event of liquidation, the holders of the redeemable convertible preferred stock would have received a liquidation preference equal to the original issuance price plus accrued but unpaid dividends. The liquidation preference had priority over all distributions to common stockholders. After payment of the liquidation preference, all remaining assets from liquidation, if any, were to be distributed to the holders of the redeemable convertible preferred stock and the common stock according to the number of shares held.

On October 3, 2006, pursuant to the Merger, the outstanding shares of redeemable convertible preferred stock were exchanged for a total of 7,958,059 shares of common stock, and warrants to purchase 1,500,000 shares of common stock. On October 3, 2006, the carrying amount of the redeemable convertible preferred stock was increased by $342,000, the amount of unamortized issuance costs as of that date. Upon the exchange of the redeemable convertible preferred stock for common stock we reversed a total of $13,958,000 of redeemable convertible preferred stock dividends accrued through October 3, 2006. As of December 31, 2007, there are no issued or outstanding shares of redeemable convertible preferred stock.

8. Redeemable Convertible Preferred Stock (Continued)

The following is a summary of the redeemable convertible preferred stock exchanged for common stock in the Merger:

Description	Share Price	Total Shares
Series A	$ 5.60	1,429,617
Series B	9.24	2,068,455
Series C	9.24	3,770,951
Series C-2	9.24	689,036
Total redeemable convertible preferred stock exchanged for common stock		7,958,059

9. Stockholders' Equity (Deficit)

Warrants

In connection with the Merger, certain stockholders of TPTX, Inc. received 1,500,000 warrants to purchase TorreyPines' common stock at an exercise price of $8.32. In accordance with EITF 00-19, "Accounting for Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company's Own Stock", we classified the warrants as a liability, and valued the warrants using the Black-Scholes model as of the date of issuance. The warrants were valued using the Black-Scholes model assuming a risk free interest rate at 4.7%, an expected dividend yield of 0%, expected volatility of 69% and an expected life of the warrants of 2.75 years. The fair value of the warrant liability is remeasured quarterly and a warrant valuation adjustment is recorded to the income statement. As of December 31, 2006, the warrants were recorded as a current liability at a fair value of $4,815,000 and for the year ended December 31, 2006, we recorded $240,000 in expense as a warrant valuation adjustment.

During 2007, we obtained letters from the holders of these warrants clarifying the warrant agreement to allow for settlement of these warrants with the issuance of unregistered shares and to further clarify that a net cash settlement is prohibited. On each of the effective dates of these clarification letters (for which no additional consideration was given or received), the aggregate fair value of $3,922,000 for these warrants, as calculated using the Black-Scholes model, was reclassified from current liabilities to additional paid-in capital. For the year ended December 31, 2007, we recorded $892,000 in other income as a warrant valuation adjustment. As of December 31, 2007, the common stock warrant liability was $0.

As of December 31, 2007, outstanding warrants to acquire shares of our common stock are as follows:

Number of Shares	Exercise Price	Expiration Date
25,000	8.00	January 15, 2008
316,078	28.00	September 11, 2008
370,916	58.00	January 8, 2009
119,218	68.00	May 3, 2009
1,500,000	8.32	October 3, 2009
12,992	9.24	July 1, 2010
6,246	5.60	December 7, 2010
59,544	9.24	September 26, 2015
2,409,994		

The weighted average exercise price of the warrants outstanding at December 31, 2007 was $21.52 and the weighted average remaining contractual life of the warrants was 1.6 years.

9. Stockholders' Equity (Deficit) (Continued)

Stock Options and Restricted Stock Units

Various employees, directors, and consultants have been granted options to purchase common shares under an equity incentive plans adopted in 2000 and 2006 (the "2000 Plan" and the "2006 Plan"). The 2000 Plan provides for the grant of up to 973,588 stock options. Options granted under this plan generally expire no later than 10 years from the date of grant (five years for a 10% stockholder). Options generally vest and become fully exercisable over a period of four years. The exercise price of incentive stock options must be equal to at least the fair market value of our common stock on the date of grant, and the exercise price of nonstatutory stock options may be no less than 85% of the fair value of our common stock on the date of grant. The exercise price of any option granted to a 10% stockholder may be no less than 110% of the fair value of our common stock on the date of grant.

The 2006 Plan provides for the grant of up to 2,188,539 stock options. Options granted under this plan generally expire no later than 10 years from the date of grant (five years for a 10% stockholder). Options generally vest and become fully exercisable over a period of four years. The exercise price of stock options must be equal to at least the fair market value of our common stock on the date of grant. The exercise price of any option granted to a 10% stockholder may be no less than 110% of the fair value of our common stock on the date of grant. Restricted stock units granted under the 2006 Plan are generally performance based awards and vest upon the achievement of defined performance targets over a specified period.

The following table summarizes our stock option activity and related information through December 31, 2007:

	Shares	Price per share	Weighted Average Exercise Price Per Share
Outstanding at December 31, 2006	1,407,577	$ 0.16 – 92.00	$ 15.50
Granted	285,875	2.72 – 7.77	6.35
Exercised	(61,532)	0.16 – 1.48	0.81
Canceled	(26,178)	1.24 – 8.00	3.65
Outstanding at December 31, 2007	1,605,742		$ 14.62
Vested and exercisable at December 31, 2007	1,096,328		

The weighted-average grant-date fair value of options during the years ended December 31, 2007, 2006 and 2005, was $4.07, $3.45 and $0.12, per share, respectively.

9. Stockholders' Equity (Deficit) (Continued)

The following table summarizes information concerning outstanding and exercisable stock options as of December 31, 2007:

	Options Outstanding			Options Exercisable	
Range of Exercise Price	Number Outstanding	Weighted-Average Remaining Contractual Life (in years)	Weighted-Average Exercise Price	Number Exercisable	Weighted-Average Exercise Price
$0.62-$0.62	8,055	2.8	$ 0.62	8,055	$ 0.62
$0.93-$0.93	197,868	4.3	0.93	197,868	0.93
$1.24-$1.24	250,765	7.0	1.24	165,257	1.24
$1.48-$2.90	105,280	9.1	2.32	21,182	1.48
$6.37-$6.37	165,744	8.9	6.37	41,436	6.37
$6.60-$7.12	170,744	8.9	6.94	56,244	6.82
$7.62-$9.04	169,747	8.3	8.05	68,747	8.55
$9.44-$24.48	161,450	3.5	16.28	161,450	16.28
$25.28-$33.92	163,967	4.6	28.41	163,967	28.41
$36.16-$92.00	212,122	3.8	55.85	212,122	55.85
$0.62-$92.00	1,605,742	6.3	$ 14.62	1,096,328	18.97

The following shares of common stock are reserved for future issuance at December 31, 2007:

Warrants	2,409,994
Stock options and restricted stock units:	
Stock options issued and outstanding	1,605,742
Restricted stock units issued and outstanding	195,000
Available for grant	1,579,694
Total common stock reserved for future issuance	5,790,430

10. Stock-Based Compensation

Stock Options

For purposes of calculating the stock-based compensation under SFAS No. 123R, we estimate the fair value of stock options using the Black-Scholes model which is consistent with the model used for pro forma disclosures under SFAS No. 123 prior to the adoption of SFAS No. 123R. The Black-Scholes model incorporates various and highly sensitive assumptions including expected volatility, expected term and interest rates. In accordance with SFAS No. 123R share-based compensation expense recognized in the consolidated statement of operations for the years ended December 31, 2007 and 2006 is based on awards ultimately expected to vest and is reduced for estimated forfeitures.

10. Stock-Based Compensation (Continued)

The assumptions used to estimate the fair value of stock options granted to employees and directors are listed below.

	Years Ended December 31,	
	2007	2006
Expected Volatility	64% to 69%	69%
Risk-Free Interest Rate	3.88% to 4.78%	4.55% to 5.00%
Forfeitures	0.00% to 10.98%	0.00% to 11.81%
Dividend Yield	—	—
Expected Term (in years)	6.1	6.1

The estimated volatility reflects the application of the SEC's SAB No. 107, *Share-Based Payment*, incorporating the historical volatility of comparable companies whose share prices are publicly available. The weighted average expected life of options was calculated using the simplified method as prescribed by SAB No. 107. This decision was based on the lack of relevant historical data due to our limited historical experience. The risk-free interest rate assumption was based on the U.S. Treasury's rates for U.S. Treasury securities with maturities similar to those of the expected term of the award being valued. The assumed dividend yield was based on our expectation of not paying dividends in the foreseeable future.

The total intrinsic value of options exercised for the years ended December 31, 2007, 2006 and 2005 was $392,000, $223,000, and $0, respectively. The intrinsic value of options exercised represents the difference between the market price of the stock on the date of the exercise and the exercise price multiplied by the number of options. As of December 31, 2007, the aggregate intrinsic value of options outstanding and exercisable was $580,000 and $473,000, respectively. The aggregate intrinsic value represents the difference between the fair market value of our common stock as of December 31, 2007, which was $2.29 per share, and the weighted exercise price of all in-the-money options multiplied by the number of options outstanding. At December 31, 2007, the weighted average remaining contractual term for options vested and exercisable was 5.1 years. The total fair value of shares vested during the two years ended December 31, 2007 was $299,000 and $128,000, respectively.

Restricted Stock Units

During the years ended December 31, 2007 and 2006, we granted 40,000 restricted stock units to management and a consultant and 155,000 restricted stock units to management, respectively. As of December 31, 2007 there were 195,000 restricted stock units outstanding. The restricted stock unit activity for 2007 is summarized as follows:

	Shares	Weighted Average Grant Date Fair Value
Restricted stock units outstanding at December 31, 2006	155,000	$ 3.14
Granted	40,000	4.36
Vested	—	—
Canceled	—	—
Restricted stock units outstanding at December 31 2007	195,000	$ 3.39

10. Stock-Based Compensation (Continued)

Of the restricted stock units awarded during the year ended December 31, 2007, 25,000 units contained a performance condition which was not met nor was probable during the year ended December 31, 2007, therefore no expense was recorded during the twelve months ended December 31, 2007 for these units. The remaining 15,000 restricted stock units awarded during the year ended December 31, 2007 contained a market price condition and were valued using a Monte Carlo simulation option-pricing model. The restricted stock units awarded during 2006 were valued using a Monte Carlo simulation option-pricing model. The assumptions used to value restricted stock units were as follows:

	Years Ended December 31,	
	2007	2006
Expected Volatility	64%	59% to 75%
Risk-Free Interest Rate	3.1%	4.7% to 5.1%
Dividend Yield	—	—
Expected Term (in years)	1.3	2.33

We recognized $970,000 in total stock-based compensation expense for our share-based awards during the twelve-month period ended December 31, 2007, of which $730,000 is related to employee and director awards valued under SFAS No. 123R. Stock-based compensation expense was allocated among the following expense categories (amounts in thousands, except per share amounts):

	Years Ended December 31,	
	2007	2006
Research and development	$ 422	$ 75
General and administrative	548	64
Stock-based compensation expense	$ 970	$ 139
Stock-based compensation expense per share, basic and diluted	$ 0.06	$ 0.04

As of December 31, 2007, the total unrecognized stock-based compensation expense related to non-vested stock options was $1,196,000. This expense is expected to be recognized on a straight-line basis over a weighted average period of approximately 2.6 years.

Equity instruments issued to non-employees are recorded at their fair values as determined in accordance with SFAS No. 123, *Accounting for Stock-Based Compensation*, and Emerging Issues Task Force (EITF) 96-18, *Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling Goods and Services* , and are periodically revalued as the options vest and are recognized as expense over the related service period. During the years ended December 31, 2007, 2006 and 2005, we recognized $240,000, $20,000 and $8,000 respectively, for stock options issued to non-employees.

10. Stock-Based Compensation (Continued)

Pro Forma Information under SFAS 123 for Periods Prior to 2006

The following table illustrates the effect on net losses as if we had applied the fair value recognition provisions of SFAS No. 123 to determine stock-based compensation for the twelve months ending December 31, 2005 (in thousands, except per share data):

	Year Ended December 31, 2005
Net loss attributable to common stockholders, as reported	$ (15,976)
Add: Share-based compensation expense for consultants included in reported net loss attributable to common stockholders	8
Deduct: Share-based compensation expense for employees determined under fair value based method for all awards	(103)
Pro forma net loss attributable to common stockholders	$ (16,071)
Pro forma net loss per share attributable to common stockholders, basic and diluted	$ (30.87)

The fair value of these options was estimated at the date of grant using the Black-Scholes model with the following assumptions:

	Year Ended December 31, 2005 2005
Expected Volatility	65.0%
Risk-Free Interest Rate	5.6%
Forfeitures	0.0%
Dividend Yield	—
Expected Term (in years)	5.0

11. Income Taxes

Significant components of our deferred tax assets as of December 31, 2007 and 2006, are shown below (amounts in thousands). A valuation allowance of $41,575,000 has been recognized to offset the net deferred tax assets as of December 31, 2007, as realization of such assets is uncertain.

	December 31,	
	2007	2006
Deferred tax assets:		
Capitalized research and development expenses	$ 4,823	$ 1,137
Net operating loss carryforwards	30,126	24,307
Research and development and manufacturers' investment credits	4,565	4,697
Deferred revenue	—	870
Stock based compensation	277	11
Investment in OXIS	2,895	2,202
Other	157	36
Total deferred tax assets	42,843	33,260
Deferred tax liabilities		
Acquired patents	(1,249)	(1,404)
Depreciation	(19)	(47)
Total deferred tax liabilities	(1,268)	(1,451)
Net deferred tax assets and liabilities	41,575	31,809
Valuation allowance for deferred tax assets	(41,575)	(31,809)
Net deferred tax assets	$ —	$ —

Reconciliation of the statutory federal income tax to our effective tax rate for the three years ended December 31, 2007 is shown below (amounts in thousands):

	December 31,		
	2007	2006	2005
Tax at federal statutory rate	$ (7,946)	$ (8,628)	$ (4,040)
State tax benefit, net of federal effect	(1,623)	(1,473)	(737)
Non deductible in-process research and development	—	2,832	—
Research and development credit	(253)	(734)	(111)
Change in valuation allowance	9,874	7,893	4,881
Non deductible warrant valuation adjustment	(304)	82	—
Stock based compensation	109	6	—
Reduction of operating loss carryforward	139	—	—
Other	4	22	7
Provision for taxes	$ —	$ —	$ —

Pursuant to Internal Revenue Code Sections 382 and 383, use of our net operating loss and tax credit carryforwards may be limited if a cumulative change in ownership of more than 50% occurs within a three-year period. We have performed a Section 382 analysis through December 31, 2006 and have determined that there is no material affect on our net operating loss carryforwards and tax credit carryforwards. There were no significant ownership changes during the year ended December 31, 2007.

11. Income Taxes (continued)

We have federal and California net operating loss carryforwards of approximately $79,702,000 and $47,194,000, respectively, which will begin to expire in 2020 and 2012, respectively, unless previously utilized. We have federal research credit carryforwards of approximately $4,390,000, which will begin expiring in 2020 unless previously utilized and state research credit carryforwards of $1,866,000 which carryforward indefinitely. We also have state manufacturers' investment credit carryforwards of approximately $103,000, which will begin expiring in 2011.

Effective January 1, 2007, we adopted the provisions of FASB Interpretation No. 48, *Accounting for Uncertainty in Income Taxes – an Interpretation of FASB Statement No. 109* ("FIN 48"). FIN 48 prescribes a recognition threshold and measurement attribute criteria for the financial statement recognition and measurement of tax positions taken or expected to be taken in a tax return. For those benefits to be recognized, a tax position must be more-likely-than-not to be sustained upon examination by taxing authorities. Upon implementation, we had unrecognized tax benefits of approximately $711,000. The implementation of FIN 48 would have resulted in a charge to retained earnings of $603,000, except that the charge was fully offset by the application of a valuation allowance.

Our policy is to recognize interest and penalties related to income tax matters in income tax expense. As of December 31, 2007, no interest or penalties associated with any unrecognized tax benefits were accrued, nor was any interest expense recognized during the year.

A rollforward of changes in our unrecognized tax benefits is shown below (in thousands):

Balance at January 1, 2007	$	711
Additions based on tax positions related to the current year		210
Additions for tax positions of prior years		(1)
Reductions for tax positions of prior years		—
Settlements		—
Balance at December 31, 2007	$	920

The December 31, 2007 balance of unrecognized tax benefits of $920,000, if recognized, would result in adjustments to the related deferred tax assets and valuation allowance and not affect our effective tax rate.

We are subject to taxation in the United States and various state and foreign jurisdictions. Our tax years for 2000 and forward are subject to examination by the United States and various state taxing authorities due to the carryforward of unutilized net operating losses and credits. Tax years 2004 and forward remain open to examination by foreign taxing jurisdictions. We currently are not under examination by any taxing authorities.

12. Employee Benefit Plan

Effective January 1, 2001, we adopted a defined contribution 401(k) Plan covering substantially all employees that meet certain age requirements. Employees may contribute up to 60% of their compensation per year, subject to a maximum limit by federal law. We are not required to, and have not, matched any portion of the employee contributions through December 31, 2007.

13. Related-Party Transactions

For the three years ended December 31, 2007, two directors provided consulting services to us. Combined total payments for these services were $30,000, $40,000 and $90,000 for 2007, 2006 and 2005, respectively.

14. Selected Quarterly Data (Unaudited)

The following tables set forth certain unaudited quarterly information for each of the eight fiscal quarters in the two-year period ended December 31, 2007. This quarterly financial data has been prepared on a consistent basis with the audited financial statements and, in the opinion of management, includes all adjustments, consisting of normal recurring adjustments, necessary for a fair presentation of the information for the periods presented. Our quarterly operating results may fluctuate significantly as a result of a variety of factors and operating results for any quarter are not necessarily indicative of results for a full fiscal year or future quarters.

2007 Quarter Ended

	March 31	June 30	September 30	December 31
Total revenue	$ 2,463	$ 2,463	$ 2,463	$ 2,461
Operating expenses	6,572	8,515	9,512	9,021
Net loss attributable to common stockholders	$ (3,281)	$ (5,158)	$ (6,774)	$ (8,156)
Basic and diluted net loss per share attributable to common stockholders	$ (0.21)	$ (0.33)	$ (0.43)	$ (0.52)

2006 Quarter Ended

	March 31	June 30	September 30	December 31
Total revenue	$ 2,463	$ 2,463	$ 2,463	$ 2,461
Operating expenses	6,331	8,145	5,150	15,026
Net loss attributable to common stockholders	$ (4,948)	$ (6,880)	$ (3,945)	$ (9,604)
Basic and diluted net loss per share attributable to common stockholders	$ (9.24)	$ (12.83)	$ (7.18)	$ (0.89)

15. Contingencies

Several lawsuits were filed against us in February 2005 in the U.S. District Court for the Southern District of New York asserting claims under Sections 10(b) and 20(a) of the Securities Exchange Act of 1934, as amended, or the Exchange Act and Rule 10b-5 thereunder on behalf of a class of purchasers of Axonyx common stock during the period from June 26, 2003, through and including February 4, 2005, referred to as the class period. Dr. Marvin S. Hausman, M.D., a former director and our former Chief Executive Officer, and Dr. Gosse B. Bruinsma, M.D., also a former director and a former Chief Executive Officer, were also named as defendants in the lawsuits. These actions were consolidated into a single class action lawsuit in January 2006. On April 10, 2006, the class action plaintiffs filed an amended consolidated complaint. We filed our answer to that complaint on May 26, 2006. Our motion to dismiss the consolidated amended complaint was filed on May 26, 2006 and was submitted to the court for a decision in September 2006. The motion to dismiss is pending.

The class action plaintiffs allege generally that our Phase III phenserine development program was subject to alleged errors of design and execution which resulted in the failure of the first Phase III phenserine trial to show efficacy. Plaintiffs allege the defendants' failure to disclose the alleged defects resulted in the artificial inflation of the price of our shares during the class period.

15. Contingencies (Continued)

There is also a shareholder derivative suit pending in New York Supreme Court, New York County, against a current director, former directors and former officers. The named defendants are Marvin S. Hausman, M.D., Gosse B. Bruinsma, M.D., S. Colin Neill, Louis G. Cornacchia, Steven H. Ferris, Ph.D., Gerard J. Vlak, Ralph Snyderman, M.D. and Michael A. Griffith. Defendants are alleged to have breached their duties to us and misused inside information regarding clinical trials of phenserine. This action has been stayed pending further developments in the federal class action.

The complaints seek unspecified damages. Management believes the claims are without merit and plans to defend the claims vigorously. We have determined that a loss in connection with these matters is possible, but not probable. Accordingly, we have not recorded any liability relating to these matters.

END