

NEUROLOGIX INC/DE  
Form 10-K  
March 25, 2009

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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 10-K

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

For the Fiscal Year Ended December 31, 2008

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 0-13347

**NEUROLOGIX, INC.**

DELAWARE

06-1582875

State or other jurisdiction of  
Incorporation or organization

I.R.S. Employer  
Identification No

ONE BRIDGE PLAZA, FORT LEE, NEW JERSEY

07024

(Address of principal executive offices)

(Zip Code)

Registrant's telephone number, including area code (201) 592-6451

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

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

Common Stock, par value \$0.001 per share

(Title of Class)

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 the definitions of large accelerated filer, 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 checkmark whether the registrant is a shell company (as defined by Rule 126-2 of the Exchange Act). Yes  No

State the aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold, or the average bid and asked price of such common equity, as of the last business day of the registrant's most recently completed second fiscal quarter: The aggregate market value of the Registrant's voting and non-voting common equity held by non-affiliates as of March 13, 2009 was approximately \$7,243,970.

Indicate the number of shares outstanding of each of the registrant's classes of common stock, as of the latest practicable date: As of March 13, 2009, there were outstanding 27,764,058 shares of the Registrant's common stock, par value \$0.001 per share.

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

Certain information required in Part III of this Annual Report on Form 10-K is incorporated herein by reference to the registrant's Proxy Statement for its 2009 Annual Meeting of Stockholders.

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**FORWARD LOOKING STATEMENTS**

This document includes certain statements of the Company that may constitute forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the Exchange Act ) and which are made pursuant to the Private Securities Litigation Reform Act of 1995. These forward-looking statements and other information relating to the Company are based upon the beliefs of management and assumptions made by and information currently available to the Company. Forward-looking statements include statements concerning plans, objectives, goals, strategies, future events, or performance, as well as underlying assumptions and statements that are other than statements of historical fact. When used in this document, the words expects, anticipates, estimates, plans, intends, projects, predicts, believes, may, should, and similar expressions, are intended to identify forward-looking statements. These statements reflect the current view of the Company's management with respect to future events and are subject to numerous risks, uncertainties, and assumptions. Many factors could cause the actual results, performance or achievements of the Company to be materially different from any future results, performance, or achievements that may be expressed or implied by such forward-looking statements, including, among other things:

the inability of the Company to raise additional funds, when needed, through public or private equity offerings, debt financings or additional corporate collaboration and licensing arrangements.

the inability of the Company to successfully commence and complete all necessary clinical trials for the commercialization of its product to treat Parkinson's disease.

Other factors and assumptions not identified above could also cause the actual results to differ materially from those set forth in the forward-looking statements. Additional information regarding factors which could cause results to differ materially from management's expectations is found in the section entitled Risk Factors starting on page 21. Although the Company believes these assumptions are reasonable, no assurance can be given that they will prove correct. Accordingly, you should not rely upon forward-looking statements as a prediction of actual results. Further, the Company undertakes no obligation to update forward-looking statements after the date they are made or to conform the statements to actual results or changes in the Company's expectations.

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**PART I**

**Item 1. Business**

**INTRODUCTION**

Neurologix, Inc. (the Company ) is engaged in the research and development of proprietary treatments for disorders of the brain and central nervous system, primarily utilizing gene therapies. The Company's development efforts are currently focused on gene transfer for treating Parkinson's disease. The Company's core technology, which it refers to as NLX, is in the clinical development stages, was tested in a Phase 1 clinical trial to treat Parkinson's disease and is currently being tested in the Company's Phase 2 clinical trial for Parkinson's disease, which began in the fourth quarter of 2008. Although the Company's operations and resources will be primarily concentrated on its Parkinson's disease therapy, the Company intends to continue to develop therapies to treat other neurodegenerative and metabolic disorders, including clinical testing for its therapy relating to Huntington's disease. Recent highlights include:

For the 12 months ended December 31, 2008, the Company reported a net loss of approximately \$6.3 million versus a net loss of \$6.8 million for the 12 months ended December 31, 2007. Cash and cash equivalents were \$18.9 million at December 31, 2008.

On January 20, 2009, the Company announced that it had initiated its Phase 2 clinical trial for the treatment of advanced Parkinson's disease, which began in December of 2008. (See Parkinson's Disease ).

On January 13, 2009, the Company entered into a License Agreement (the Cornell License Agreement ), with Cornell University (Cornell ), whereby Cornell granted the Company an exclusive license for the worldwide use of certain patents for the development of products and methods for the treatment of psychiatric conditions. The Company anticipates using these patents to develop a product for the treatment of depression. (See Other Neurodegenerative and Metabolic Disorders ).

During 2008, the Company further amended its Master Sponsored Research Agreement, dated as of October 10, 2006, with The Ohio State University Research Foundation (OSURF ), on behalf of Ohio State University, to extend its term to November 10, 2009.

In October 2008, the Company entered into a letter agreement with Dr. Matthew During, one of the Company's scientific co-founders, amending his consulting agreement dated October 1, 1999, by extending the term of the agreement through September 30, 2009.

On August 28, 2008, the Company entered into a License Agreement (the Aegera License Agreement ) with Aegera Therapeutics, Inc. (Aegera ), whereby Aegera granted the Company an exclusive license for the worldwide rights, excluding China, for the use of the XIAP gene (x-linked inhibitor of apoptosis protein) for therapeutic or prophylactic purposes in the treatment of Huntington's disease. (See Huntington's Disease ).

On August 12, 2008, the Company entered into an Addendum (the Addendum ), to its Development and Manufacturing Agreement (the manufacturing and development agreement ), dated as of April 27, 2005, with Medtronic, Inc. (referred to herein as Medtronic as distinguished from its wholly-owned subsidiary, Medtronic International, Ltd., referred to herein as Medtronic ).



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International ), whereby the Company and Medtronic agreed on the terms and conditions relating to Medtronic's supply of the infusion device to be used in the Company's Phase 2 clinical trial for Parkinson's disease.

On April 28, 2008, the Company issued and sold 142,857 shares of Series D Convertible Preferred Stock, par value \$0.10 per share (the Series D Stock ), at a price of \$35.00 per share, for a total of \$5 million, less applicable expenses, in a private placement transaction. Each share of Series D Stock is convertible into 30.17 shares of common stock, par value \$0.001 per share (the Common Stock ), of the Company. The Series D Stock accrues dividends at a rate of 7% per annum, payable in semi-annual installments, which accrue, cumulatively, until paid. Additionally, the transaction involved the issuance of warrants to purchase approximately 1.1 million shares of Common Stock at an exercise price of \$1.39 per share. The transaction also involved the Company granting certain additional demand registration rights to the holders of the Series D Stock. (See Note 9 to Consolidated Financial Statements).

**HISTORY**

Arinco Computer Systems Inc. (formerly known as Change Technology Partners, Inc. and referred to herein as Arinco ), the predecessor to the Company, was incorporated in New Mexico on March 31, 1978 for the principal purpose of serving its subsidiary operations, which included the sale of telecommunications equipment and services and the retail sales of computers. Arinco, which became a public company in 1982, did not have any business operations from 1985 to March 2000. At that time, an investor group acquired control of Arinco and commenced a new consulting business strategy focusing on internet, e-services and digital media solutions.

Thereafter, until approximately July 2001, the Company provided a broad range of consulting services, including e-services and technology strategy, online branding, web architecture and design, systems integration, systems architecture and outsourcing. However, the Company was not successful with its business strategy and therefore the Company's Board of Directors (the Board ) voted to divest the Company of a majority of its then existing operations. On September 30, 2002, the Board adopted a plan of liquidation and dissolution in order to maximize stockholder value.

During the period from December 2001 through June 30, 2003, Canned Interactive, which designs and produces interactive media such as digital video discs (DVDs) and web sites, primarily for entertainment, consumer goods, sports and technology companies, was the Company's sole source of operating revenues. On June 30, 2003, the Company sold all of the issued and outstanding shares of Canned Interactive to a limited partnership of which Canned Interactive's managing director was the general partner. With the sale of Canned Interactive, the Company ceased to have any continuing operations.

On February 10, 2004, the Company completed a merger (the Merger ) of a wholly-owned subsidiary with Neurologix Research, Inc. (formerly known as Neurologix, Inc. and sometimes referred to herein as NRI ). Following the Merger, NRI became a wholly-owned subsidiary of the Company and stockholders of NRI received an aggregate number of shares of Common Stock representing approximately 68% of the total number shares of Common Stock outstanding after the Merger.

Effective December 31, 2005, the Company completed a short-form merger whereby its operating subsidiary, NRI, was merged with and into the Company. Following the merger, NRI no longer existed as a separate corporation. As the surviving corporation in the merger, the Company assumed all rights and obligations of NRI. The short-form merger was completed for





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administrative purposes and did not have any material impact on the Company or its operations or financial statements.

### **BUSINESS OF THE COMPANY**

The Company is a development stage company engaged in the research and development of proprietary treatments for disorders of the brain and central nervous system, primarily utilizing gene therapies. These treatments are designed as alternatives to conventional surgical and pharmacological treatments.

The Company's scientific co-founders, Dr. Matthew J. During and Dr. Michael G. Kaplitt, have collaborated for more than ten years in working with central nervous system disorders. Their research spans from animal studies (for gene transfer in Parkinson's disease, epilepsy and other disorders of the central nervous system) to the ongoing Phase 2 clinical trial for the treatment of Parkinson's disease. They both remain as consultants to the Company and serve on its Scientific Advisory Board (SAB).

From 1999 to 2002, the Company, through NRI, conducted its gene transfer research through sponsorship agreements with Thomas Jefferson University (TJU), the Rockefeller University (Rockefeller) and the University of Auckland in New Zealand (AUL). From October 2002 to April 2006, the Company staffed its own laboratory facilities at Columbia University's Audubon Biomedical Science and Technology Park (Columbia) in New York City to manufacture the gene transfer products required for its pre-clinical trials and to continue the research and development of additional gene transfer products.

Currently, the Company conducts basic and applied gene transfer research through research agreements with Cornell in a laboratory directed by Dr. Michael G. Kaplitt and one of the company's scientists, and OSURF in a laboratory directed by Dr. During and four of the Company's scientists.

The Company currently outsources the manufacture of its materials and devices to third parties both for use in its pre-clinical trials and its clinical trials. These third parties provide these materials and devices pursuant to directives from the Company and Drs. Kaplitt and During.

### ***Business Strategy***

The Company's objective is to develop and commercialize innovative therapeutic treatments for disorders of the brain and central nervous system, primarily using gene therapy. Key elements of the Company's strategy are:

*Focus resources on development of the Company's NLX technology.* The Company intends to focus its research and development efforts on what it believes are achievable technologies having practical applications. Currently, the Company expects to allocate the majority of its resources and efforts to the development of its first-generation NLX products for the treatment of Parkinson's disease, particularly its ongoing Phase 2 clinical trial.

*Focus on central nervous system disorders that are likely to be candidates for gene transfer.* To attempt to reduce the technical and commercial risks inherent in the development of new gene therapies, the Company intends to pursue treatments for neurological diseases for which:

- o the therapeutic gene function is reasonably well understood and has a physiologic role;
- o neurosurgical approaches are already established and standard;



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- o animal studies have indicated that gene transfer technology may be effective in treating the disease;
- o specific clinical outcome is measurable;
- o partial correction of the disease is expected to be clinically proven; and
- o clinical testing can be conducted in a relatively small number of patients within a reasonably short time period.

*Establish strategic relationships to facilitate research, product development and manufacturing.* The Company intends to seek to establish collaborative research and manufacturing relationships with universities and companies involved in the development of gene transfer and other technologies. The Company believes that such relationships, if established, will make additional resources available to the Company for the manufacture of gene transfer products and for clinical trials involving these products. The Company may enter into joint ventures or strategic alliances with one or more pharmaceutical companies or other medical specialty companies to develop or manufacture its products. The Company may seek such companies that have extensive resources and knowledge to enable the Company to develop and commercialize its products.

*Funding Operations.* The Company must continue to seek additional funds through public or private equity offerings, debt financings or corporate collaborations and licensing arrangements, including joint ventures and strategic alliances. (See Risk Factors - The Company Does Not Have Sufficient Funds to Continue its Operations in the Long Run or to Commercialize its Product Candidates , See Item 7 - Management's Discussion and Analysis of Financial Condition and Results of Operations - Plan of Operation and Item 7 - Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources ).

***Technology Overview***

Deoxyribonucleic acid (DNA ) is organized into segments called genes, with each gene representing the region of DNA that determines the structure of a protein, as well as the timing and location of such protein's production. Occasionally, the DNA for one or more genes can be defective, resulting in the absence or improper production of a functioning protein in the cell. This improper expression can alter a cell's normal function and may result in a disease. One goal of gene transfer is to treat these diseases by delivering DNA containing the corrected gene into the affected cells. Also, gene transfer can increase or decrease the synthesis of gene products or introduce new genes into a cell and thus provide new or augmented functions to that cell.

There are several different ways of delivering genes into cells. Each of the methods of delivery uses carriers, called vectors, to transport the genes into cells. Similar to the relationship between a delivery truck and its cargo, the vector (the truck ) provides a mode of transport and the therapeutic agent (the cargo ) provides the disease remedy. These carriers can be either man-made components or modified viruses. The use of viruses takes advantage of their natural ability to introduce DNA into cells. Gene transfer takes advantage of this property by replacing viral DNA with a payload consisting of a specific gene. Once the vector inserts the gene into the cell, the gene acts as a blueprint directing the cell to make the therapeutic protein.

For its first generation of products, the Company intends to utilize exclusively the adeno-associated virus (AAV ) vector. In 1994, Drs. Michael G. Kaplitt and Matthew During demonstrated that AAV could be a safe and effective

vehicle for gene transfer in the brain. Since that time, the AAV vector has been used safely in a variety of clinical gene transfer trials.

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The Company believes that the benefits of AAV vector gene transfer technology include:

*Safety.* AAV vectors are based on a virus that, to the Company's knowledge, has not been associated with a human disease.

*Efficiency of Delivery.* AAV vectors are effective at delivering genes to cells. Once in the cell, genes delivered by AAV vectors in animal models have produced effective amounts of protein on a continuous basis, often for months or longer from a single administration.

*Ability to Deliver Many Different Genes.* The vast majority of the coding parts of genes (cDNA) fit into AAV vectors and have been successfully delivered to a wide range of cell types.

*A Simpler and Safer Option than Standard Surgery.* The Company intends to administer the AAV vector-based products in a procedure that is simpler and safer than other established neurosurgical procedures.

## **Parkinson's Disease**

General. Parkinson's disease is a neurodegenerative disorder; it arises from the gradual death of nerve cells in the brain. Parkinson's disease is a progressive and debilitating disease that affects the control of bodily movement and is characterized by four principal symptoms:

tremor of the limbs,

rigidity of the limbs,

bradykinesia of the limbs and body evidenced by difficulty and slowness of movement, and

postural instability.

Physicians and patients have long recognized that this disease, or treatment complications, can cause a wide spectrum of other symptoms, including dementia, abnormal speech, sleep disturbances, swallowing problems, sexual dysfunction and depression.

Rigidity, tremor, and bradykinesia result, primarily, from a loss of dopamine in two regions of the brain: the substantia nigra and striatum (caudate and putamen). Dopamine is a neurotransmitter, a chemical released from nerve cells (neurons), which helps regulate the flow of impulses from the substantia nigra to neurons in the caudate and putamen. Standard therapy for Parkinson's disease often involves use of levodopa, a drug which stimulates production of dopamine. However, over extended periods of time levodopa often declines in its effectiveness. In advanced stages of Parkinson's disease, as the disease becomes more and more debilitating, it becomes necessary to accept a riskier and potentially more invasive medical procedure to treat the disease. It is at this juncture that surgical procedures, including deep brain stimulators and lesioning, which target an area of the brain called the subthalamic nucleus (STN), are commonly advised.

The Company believes that the glutamic acid decarboxylase (GAD) gene can be used to selectively mimic normal physiology and alter the neural circuitry affected in Parkinson's disease. The Company's technology inserts a GAD gene into an AAV-based viral vector, and this packaged vector is introduced directly into the STN. The GAD gene is responsible for making gamma aminobutyric acid (GABA), which is released by nerve cells to inhibit or dampen activity. The loss of dopamine leads to a change in the activity of several brain structures which control movement.

Central to this is the STN, which is overactive and does not receive adequate GABA, as well as targets of the STN, which are also hyperactive and also do not receive enough GABA. The goal of this therapy is to deliver GABA to the STN in order to re-establish the normal neurochemical balance and activity among these key structures.

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The Company's gene transfer is therefore designed to reset the overactive brain cells to inhibit electrical activity and return brain network activity to more normal levels. This in turn reduces symptoms of Parkinson's disease, including tremors, rigidity and slowness of movement. The therapy is designed to be administered without destroying brain tissue and without implanting a permanent medical device.

According to the National Parkinson Foundation, there are approximately 1.5 million Parkinson's disease patients in America, with approximately 60,000 new cases diagnosed each year. While the peak onset of Parkinson's disease is age 60 years, Parkinson's disease is not just a disease of middle or old age: 15% of Parkinson's disease patients are less than 50 years of age.

**Product Development and Operations.** In October 2006, the Company announced that it had completed its Phase 1 clinical trial of gene transfer for Parkinson's disease. The results indicated that the treatment, which was infused unilaterally, appears to be safe and well-tolerated in patients with advanced Parkinson's disease, with no evidence of adverse effects or immunologic reaction related to the study treatment. The trial also yielded statistically significant clinical efficacy and neuro-imaging results. Such results were published in 2007 in two leading peer-reviewed medical and scientific journals: *The Lancet* and *Proceedings of the National Academy of Sciences*.

A Phase 1 clinical trial is primarily designed to test the safety, as opposed to the efficacy, of a proposed treatment. The clinical trial was conducted by Drs. Kaplitt and During. As part of this clinical trial, twelve patients with Parkinson's disease underwent surgical gene transfer at The New York Presbyterian Hospital/Weill Medical College of Cornell University. All patients were evaluated both pre- and post-operatively with PET scans and with graded neurological evaluations by Drs. Andrew Feigin and David Eidelberg of the North Shore University Hospital. The Phase 1 clinical trial was an open-label dose-escalation study with four patients in each of three escalating dose cohorts. The third cohort of four patients received 10 times the dose of the first cohort. The 12 patients who participated in the trial were diagnosed with severe Parkinson's disease of at least five years duration and were no longer adequately responding to current medical therapies.

Following this Phase 1 clinical trial, the Company designed its protocol for a Phase 2 clinical trial. On December 3, 2007, the Company reviewed its Phase 2 protocol with the National Institutes of Health's Office of Biotechnology Activities Recombinant DNA Advisory Committee (the RAC) in a public forum.

On December 13, 2007, the Company announced that the U.S. Food and Drug Administration (the FDA) granted Fast Track Designation for the Company's treatment of Parkinson's disease. Under the FDA Modernization Act of 1997, Fast Track Designation may facilitate the development and expedite the review of a drug candidate that is intended for the treatment of a serious life-threatening condition and demonstrates the potential to address an unmet medical need for such a condition. Fast Track Designation will provide various means to expedite the development and review of the Company's gene transfer procedure for Parkinson's disease, including the facilitation of meetings and other correspondence with FDA reviewers, consideration for priority review and the ability to submit portions of a Biologics License Application (BLA) early for review as part of a rolling submission. The receipt of Fast Track Designation does not, however, assure the approval of any of the Company's study protocols or the ultimate approval of any BLA that may be submitted by the Company to the FDA for marketing approval.

Under the manufacturing and development agreement, the Company and Medtronic have co-developed a new catheter system to infuse the Company's gene transfer product into the brain with respect to the treatment of Parkinson's disease. (See - Manufacturing). The FDA reviewed and approved the use of this device in connection with the Company's Phase 2 clinical trial for its Parkinson's disease product under the Company's investigational new drug



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application ( IND ). The use of such a catheter facilitates the delivery of the Company's gene transfer treatment by neurosurgeons and simplifies the procedures for infusing the gene product into the brain. In order for the Company to market its products, Medtronic must obtain the FDA's approval for the commercialization of such catheter, and the Company must obtain sufficient quantities of the catheter. (See Risk Factors ).

On March 27, 2008, the Company received clearance from the FDA to initiate its planned Phase 2 clinical trial for Parkinson's disease. This trial is a randomized, controlled trial designed, among other things, to further establish the effectiveness and the safety of the treatment. The trial will be conducted in multiple medical center sites throughout the U.S. for the treatment of trial participants. Testing at each of these sites is subject, among other things, to the approval of each site's Institutional Review Board and Institutional Biosafety Committee. (See Risk Factors - The Company Cannot Ensure that it will be Able to Pursue Further Trials for its Product Candidates or the Timing of any Future Trials , Risk Factors - The Company is Subject to Stringent Regulation; FDA Approvals and Risk Factors The Company's Research Activities are Subject to Review by the RAC ).

The Company initiated its Phase 2 clinical trial for the treatment of advanced Parkinson's disease in December of 2008, after the FDA removed its partial clinical hold on the clinical trial. The Company expects to enroll approximately 40 subjects across six to eight medical center sites. Approximately 20 participants will be randomly selected to receive an infusion of the gene-based treatment bilaterally, and approximately 20 participants will be randomly selected to receive a sterile saline solution. Trial participants will be assessed for treatment effects by standardized Parkinson's disease ratings at multiple time points both pre and post-procedure. The primary endpoint for the trial will be a clinical assessment of motor function at 6 months using the Unified Parkinson's Disease Rating Scale (UPDRS). All participants in the trial will also be monitored for safety for 12 months following the gene transfer procedure. If the primary endpoint is met following the analysis of the 6-month efficacy data, and if the 12-month safety data is acceptable, then the sham-control participants will be offered the opportunity to crossover into an open label study of the gene transfer therapy if they continue to meet all entry, medical and surgical criteria. The Company anticipates that it will conclude the surgeries of participants for the Phase 2 clinical trial in 2009.

The Company is currently taking steps to move toward a pivotal trial for the treatment of Parkinson's disease, and hopes to be in a position to file its protocol with the FDA in 2010 or 2011. The Company's conduct of such a trial will require, among other things, approval by the FDA and adequate funding. Currently, the Company estimates that the pivotal trial could be completed in 2013 and the estimated total direct costs to reach that milestone are expected to be in excess of \$20 million. (See Risk Factors and Item 7 - Management's Discussion and Analysis of Financial Condition and Results of Operations ).

**Huntington's disease**

General. Huntington's disease is a devastating, hereditary, degenerative brain disorder for which there is, at present, no effective treatment or cure. Huntington's disease slowly diminishes the affected individual's ability to walk, think, talk and reason. Early symptoms of Huntington's disease may affect cognitive ability or mobility and include depression, mood swings, forgetfulness, clumsiness, involuntary twitching and lack of coordination. As the disease progresses, concentration and short-term memory diminish and involuntary movements of the head, trunk and limbs increase. Walking, speaking and swallowing abilities deteriorate and eventually a person is unable to care for himself or herself. Ultimately, death occurs due to complications such as choking, infection or heart failure.

According to the Huntington's Disease Society of America, Huntington's disease is recognized as one of the more common genetic disorders. More than a quarter of a million

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Americans have Huntington's disease or are at risk of inheriting the disease from an affected parent. Huntington's disease typically begins in mid-life, between the ages of 30 and 50 and affects males and females equally. Each child of a person with Huntington's disease has a 50/50 chance of inheriting the fatal gene. Everyone who carries the gene will develop the disease.

**Product Development and Operations.** In November 2005, the Company announced findings from pre-clinical trials which showed that a form of the gene XIAP (X-linked Inhibitor of Apoptosis Protein or dXIAP) may prevent the progression of Huntington's disease. Using cell culture models of the disease, the Company showed that dXIAP may significantly reduce cell death caused by a mutated form of human Huntington gene. The Company further investigated the neuroprotective effects of dXIAP by injecting presymptomatic rodents with AAV vectors encoding dXIAP into the striatum, an area of the brain normally affected in Huntington's patients. In the study, rodents injected with this vector experienced significant reversal of motor dysfunction to the level of normal rodents, while there was no improvement in rodents treated with a control vector. dXIAP also appeared to prolong the lifespan of the rodents. Furthermore, no adverse effects due to dXIAP overproduction were observed.

In August 2008, the Company entered into the Aegera License Agreement, whereby Aegera granted the Company an exclusive license for the worldwide rights, excluding China, for the use of dXIAP for therapeutic or prophylactic purposes in the treatment of Huntington's disease.

The Company is further researching technology based upon the dXIAP findings. A patent application has been filed based upon certain of these findings. Using information obtained from research conducted by the Company's scientists, an additional strategy is being pursued to develop a gene transfer system to protect neurons from death. The goal of this strategy is to both optimize therapy and provide some element of control should there be unanticipated or undesirable effects in human patients from too much activation of these pathways. This research was initially targeted to treat Huntington's disease, since it is a lethal, incurable disorder which can be identified in patients prior to their developing severe symptoms. However, this program is not specific to Huntington's disease, and the Company has evidence that shows that this therapy may be effective in other diseases involving cell death, such as Parkinson's disease. Therefore, success in the development of therapies to treat such diseases could lead to more advanced therapies to follow the Company's current program in Parkinson's disease, and may be useful in other disorders caused by the death of brain cells.

The Company's development of this therapy for Huntington's disease is currently in the pre-clinical phase. The Company is planning to conduct a clinical trial for this therapy, the timing of which is subject to the availability of the AAV vector and an infusion system, and to the receipt of applicable regulatory approvals. Such trial would be conducted in a foreign location and would involve human patients who will receive a brain infusion of the Company's gene-based treatment for this disease. Given the short time frame needed to conduct this particular trial and the limited funds required to fund it, the Company will look to proceed promptly with its commencement. Any additional studies or trials for Huntington's disease will, most likely, require additional funding and will be subject to product availability and regulatory approvals. (See Risk Factors - The Company Cannot Ensure that it will be Able to Pursue Further Trials for its Product Candidates or the Timing of any Future Trials).

## **Epilepsy**

**General.** Epilepsy, a group of diseases associated with recurrent seizures, is caused by periodic episodes of repetitive, abnormal electrochemical disturbance in the central nervous system, beginning in the brain. Generalized seizures happen when massive bursts of electrical energy sweep through the entire brain at once, causing loss of consciousness, falls, convulsions or intense muscle spasms. Partial or focal seizures happen when the disturbance occurs in only



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one part of the brain, affecting the physical or mental activity controlled by that area of the brain. Seizures may also begin as partial or focal seizures and then generalize.

According to the Epilepsy Foundation (USA) (the EF ), epilepsy affects more than 3 million Americans of all ages and backgrounds, making it one of the most common neurological diseases in this country. Approximately 200,000 new cases of seizures and epilepsy occur each year, with approximately 80% of epileptic Americans below age 65. Despite optimal medical (drug) treatment, as many as 30% to 40% of people with epilepsy continue to have seizures and are potential candidates for surgery, including gene transfer.

**Product Development and Operations.** Over the past several years, the Company has completed multiple pre-clinical trials in rodents and two non-human primate studies to evaluate the toxicity and efficacy of using its gene transfer technology in the brain for the treatment of epilepsy. The Company's approach is based on the use of the non-pathogenic AAV vector, delivered using standard neurosurgical techniques. Other studies have demonstrated that Neuropeptide Y (rAAV-NPY), a 36-amino acid peptide which acts to dampen excessive excitatory activity and prevents seizures in multiple animal models, had efficacy in preventing the development of spontaneous seizures that occur after a prolonged episode of status epilepticus. The Company's proposed treatment uses gene transfer technology to deliver genes into the brain which restore the chemical balance, but only in the areas in which the disease process is occurring.

In December 2006, the Company submitted an IND to the FDA for permission to begin a Phase 1 clinical trial in temporal lobe epilepsy (TLE ). The proposed clinical protocol for this study was presented to the RAC on September 23, 2004 and was reviewed favorably.

On December 4, 2007, the Company announced the receipt of a grant from the Epilepsy Research Foundation (ERF ), a joint venture of three non-profit epilepsy organizations—the Epilepsy Therapy Project (ETP ), EF, and Finding a Cure for Epilepsy and Seizures (FACES )—formed to identify and accelerate the development of promising epilepsy research. The grant will help fund the Company's ongoing epilepsy research.

In January 2008, the Company announced that as a result of comments from, and discussions with, the FDA, the Company would need to conduct an additional pre-clinical trial in non-human primates prior to commencing a Phase 1 clinical trial. The non-human primate study would be designed to confirm the safety of the administration and use of the rAAV-NPY.

During the second quarter of 2008, the Company learned that further action is required to protect adequately the Company's intellectual property rights in its technology relating to its TLE product. The Company recently discovered that certain individuals, not affiliated with the Company, may also have rights to use certain technology currently used by the Company with respect to the TLE product.

Based on the foregoing, the Company's timetable for commencement of a Phase 1 clinical trial for its TLE product has been delayed, with any such commencement being subject, among other things, to the successful resolution of the above-mentioned intellectual property issues, the successful completion of the additional pre-clinical trial, the availability of funding, approval by the FDA and procurement of related intellectual property licenses. (See Risk Factors ). The Company cannot predict the timing for the conduct of additional trials or for a filing for the FDA's approval of the epilepsy product.

## **Other Neurodegenerative and Metabolic Disorders**

The Company has also undertaken efforts to develop gene transfer for the treatment of other neurodegenerative and metabolic disorders, including depression and metabolic syndrome or genetically-based obesity. The Company is also

continuing its research and development of gene transfer for the treatment of these disorders. Since the Company's primary focus remains

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the development of its product for the treatment of Parkinson's disease, the Company expects that these other treatment candidates will remain in pre-clinical phases for the next several years. In January 2009, the Company and Cornell entered into the Cornell License Agreement which resulted from their ongoing research and development relationship. Pursuant to the terms of the Cornell License Agreement, Cornell granted the Company an exclusive license for the worldwide use of certain patents for the development of products and methods for the treatment of psychiatric conditions.

***Patents and Other Proprietary Rights***

The Company believes that its success depends upon its ability to develop and protect proprietary products and technology. Accordingly, whenever practicable, the Company applies for U.S. patents (and, in some instances, foreign patents as well) covering those developments that it believes are innovative, technologically significant and commercially attractive to its field of operations. At present, it holds the license to 17 issued U.S. patents and 8 foreign patents, as well as more than 20 pending U.S. and foreign patent applications. In addition, the Company owns 1 issued U.S. patent, 9 U.S. pending patent applications and 8 foreign patent applications. All of the above patents cover gene transfer technologies and delivery mechanisms for gene transfer.

The exclusive patent licenses were granted by Rockefeller and TJU pursuant to research agreements which the Company had with these institutions and by Aegea and Cornell pursuant to the Aegea License Agreement and the Cornell License Agreement, respectively. The non-exclusive licenses were granted pursuant to agreements the Company has with Rockefeller, Yale University and Diamyd Therapeutics AB (Diamyd).

All of such licenses granted to the Company cover patent rights and technical information relating to its gene transfer products and its NLX technology. Under the licenses granted by Rockefeller, TJU, the Rockefeller-Yale Agreement (as defined below) and Cornell, Drs. Michael G. Kaplitt and Doring, the Company's founders, are entitled to receive, and have received, certain amounts out of the payments made by the Company to Rockefeller, TJU, Yale University and Cornell pursuant to such licenses. (See Note 3 to Consolidated Financial Statements).

In August 2002, the Company entered into a license agreement with Rockefeller and Yale University (the Rockefeller-Yale Agreement) whereby the universities granted to the Company a nonexclusive license to certain patent rights and technical information. An initial fee of \$20,000 was paid to each of the two universities pursuant to the agreement, and the Company pays an annual maintenance fee of \$5,000 per year to each university. In addition, the Company must make additional payments upon reaching certain milestones. The Company has the right to terminate the agreement at any time upon 90 days written notice. (See Note 10 to Consolidated Financial Statements).

On July 2, 2003, the Company entered into a Clinical Study Agreement (the Clinical Study Agreement) with Cornell to sponsor the Company's Phase 1 clinical trial for the treatment of Parkinson's disease. Under this agreement, the Company paid Cornell \$36,000 when each patient commenced treatment and \$23,000 annually for the services of a nurse to assist in the clinical trial. The Company fulfilled its obligation under this portion of the agreement in May 2006 when the last patient to participate in the clinical trial completed its one-year follow-up. On September 24, 2004, the parties amended the Clinical Study Agreement to provide for research covering the development of gene transfer approaches to neurodegenerative disorders, including Parkinson's disease, Huntington's disease, Alzheimer's disease and epilepsy (the Scientific Studies). On March 2, 2007, the parties entered into Amendment No. 2 to the Clinical Study Agreement to further revise and extend the agreement until August 31, 2008. This period may be extended for additional one (1) year terms by mutual written agreement of both

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parties. This sponsored research is funded by the Company and is being conducted in Cornell's Laboratory of Molecular Neurosurgery under the direction of Dr. Michael G. Kaplitt. The Company is required to pay Cornell \$200,000 per year for the duration of the Scientific Studies. (See Note 10 to Consolidated Financial Statements). Pursuant to the terms of the Cornell License Agreement, the Company agreed to continue to provide research support to Cornell under the Clinical Study Agreement until the expiration of the Cornell License Agreement.

Effective May 2006, the Company entered into a Sponsored Research Agreement (Research Agreement) with OSURF which provides for research covering the development of gene transfer approaches to neurodegenerative disorders, including Parkinson's disease, epilepsy, Huntington's disease, Alzheimer's disease, as well as gene transfer approaches to pain, stroke, neurovascular diseases and other research. The Company has first right to negotiate with OSURF, on reasonably commercial terms, for an exclusive, worldwide right and license for commercial products embodying inventions conceived under the Research Agreement if there is involvement from employees of OSURF. The term of the Research Agreement, as amended in May 2008, expired in November 2008, but, effective October 2008, the Company and OSURF amended the Research Agreement to extend the term through November 2009.

In August 2006, the Company entered into a Sublicense Agreement with Diamyd. Pursuant to the Sublicense Agreement, Diamyd granted to the Company a non-exclusive worldwide license to certain patent rights and technical information for the use of a gene version of GAD 65 in connection with its gene transfer treatment for Parkinson's disease. The Company paid Diamyd an initial fee of \$500,000 and will pay annual license maintenance fees, certain milestone and royalty payments to Diamyd as provided for in the Sublicense Agreement.

On August 28, 2008, the Company entered into the Aegea License Agreement whereby Aegea granted the Company an exclusive license for the worldwide rights, excluding China, for the use of the XIAP gene (x-linked inhibitor of apoptosis protein) for therapeutic or prophylactic purposes in the treatment of Huntington's disease. Under the terms of the Aegea License Agreement, the Company paid Aegea an initial fee, and, during the term of the Aegea License Agreement, the Company will pay Aegea an annual license maintenance fee and certain milestone and royalty payments as provided for in the Aegea License Agreement.

On January 13, 2009, the Company entered into the Cornell License Agreement whereby Cornell granted the Company an exclusive license for the worldwide use of certain patents for the development of products and methods for the treatment of psychiatric conditions. Under the terms of the Cornell License Agreement, the Company paid Cornell an initial fee, and, during the term of the Cornell License Agreement, will pay Cornell an annual license maintenance fee and certain milestone and royalty payments as provided for in the Cornell License Agreement. In addition, the Company agreed to continue research support to Cornell under the Clinical Study Agreement during the term of the Cornell License Agreement.

In addition to patents, the Company relies on trade secrets, technical know-how and continuing technological innovation to develop and maintain its competitive position. The Company requires all of its employees and scientific consultants to execute confidentiality and assignment of invention agreements. These agreements typically provide that (i) all materials and confidential information developed or made known to the individual during the course of the individual's relationship with the Company are to be kept confidential and not disclosed to third parties except in specific circumstances and (ii) all inventions arising out of the relationship with the Company shall be the Company's exclusive property. While the Company takes these and other measures to protect its trade secrets, they do not ensure against the unauthorized use and/or disclosure of its confidential information.

During the second quarter of 2008, the Company learned that further action is required to protect adequately the Company's intellectual property rights in its technology relating to its TLE product. The Company recently discovered that certain individuals, not affiliated with the





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Company, may also have rights to use certain technology currently used by the Company with respect to the TLE product. If the Company elects to proceed with its Phase 1 clinical trial for its TLE product, the Company will have to assure that it has all necessary rights to this product.

The Company's intellectual property rights may be called into question, subject to litigation or forfeited in certain situations. (See Risk Factors - The Company's Intellectual Property Rights may be Called into Question or Subject to Litigation and Risk Factors If the Company Fails to Meet Certain Milestones Related to its Intellectual Property Licenses with Third Parties, the Company Could Forfeit License Rights That Are Important to its Business ).

## ***Manufacturing***

The Company, or third parties retained by it, will need to have available, or develop, capabilities for the manufacture of components and delivery systems utilized in the Company's products, including all necessary equipment and facilities. In order to receive approval by the FDA and commercialize its product candidates, the Company must develop and implement manufacturing processes and facilities that comply with governmental regulations, including the FDA's Good Manufacturing Practices (GMP). As discussed below, the Company manufactured its own AAV and other components for its Phase 1 clinical trial for Parkinson's disease and contracted and oversaw a third party manufacturer for the production of its Phase 2 clinical trial for Parkinson's disease and its previously planned Phase 1 clinical trial for epilepsy. All products have been reviewed by the Company and the third party manufacturer and subsequently were submitted to the FDA for review. The large scale manufacture and development of components and systems will require both time and significant funding. (See Risk Factors ).

The Company's adeno-associated virus glutamic acid decarboxylase (the AAVGAD) for Parkinson's disease, as well as other product candidates for its other therapies, is a biological product requiring manufacture in specialized facilities. As the Company's development programs advance through the phases of clinical development, the regulatory requirements increase for manufacture of these products. The Company is planning to continue manufacturing product consistent with current GMP as defined by the FDA and commensurate with the clinical phase of development and commercial release. The Company does not currently own any such facilities, and it is evaluating whether it will seek to establish such capabilities on its own or instead will contract with third parties for such manufacturing.

Pursuant to a research agreement, Auckland Uniservices, Ltd., the commercial research and knowledge transfer company for AUL, manufactured and delivered to the Company in bulk form all of the AAVGAD that the Company required to complete the Phase 1 clinical trial procedures for Parkinson's disease. The Company's laboratory purified the AAVGAD that it received from AUL to the final product form that was used in the trial. On October 15, 2006, the research agreement between AUL and the Company expired and was not renewed.

The Company contracted with Cincinnati Children's Hospital Medical Center (CCHMC) for the production of the AAV viral vectors to be used in the Company's Phase 2 clinical trial for Parkinson's disease and Phase 1 clinical trial for epilepsy. The agreement required CCHMC to produce such vectors in accordance with current GMP for the corresponding clinical phase of development. The products have been released by CCHMC and the Company, and the products have been filed with the FDA in connection with the Company's submitted clinical protocols. The AAV vector for the Phase 2 clinical trial for Parkinson's disease has been produced and is being supplied by CCHMC as approved by the FDA.

Currently, there is no commercial product available for infusion of gene therapeutics or other biological agents into the brain, and all clinical trials to date, including the Company's Phase 1 clinical trial for Parkinson's disease, have utilized either experimental devices created specifically for the particular trial or have used technologies which were not designed for use in the brain. Under the manufacturing and development agreement, the Company's scientists,



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along with Medtronic's engineers, developed a novel catheter system for infusing gene therapies into the brain. The Company is using this system in its Phase 2 clinical trial for Parkinson's disease and plans to use it in follow-on clinical studies. In order for the Company to market its products, the FDA's approval is required for use of such catheter. As of December 31, 2008, the Company had paid \$850,000 to Medtronic under the manufacturing and development agreement and is purchasing the infusion systems being used in its Phase 2 clinical trial for Parkinson's disease under the Addendum.

The Company does not have any experience in manufacturing products for commercial sale and, if the Company is not successful in establishing its own manufacturing capabilities or engaging a third party to manufacture its products, no assurance can be provided that it will be able to reach its planned objectives. Furthermore, manufacturing costs could exceed the Company's expectations and become prohibitive. (See Risk Factors - The Company Does Not Have any Experience in Manufacturing Products for Commercial Sale ).

The Company continues to seek manufacturing capabilities for its AAV vectors and catheter infusion devices in connection with a potential pivotal trial for the treatment of Parkinson's disease and for use in its other gene therapy products. At the present time, the Company has no intention of developing or constructing its own manufacturing facility for these products.

## ***Competition***

The Company is aware of other companies currently conducting clinical trials of gene transfer products in humans to treat Parkinson's disease, and recognizes that it faces intense competition from pharmaceutical companies, biotechnology companies, universities, governmental entities and other healthcare providers developing alternative treatments for Parkinson's disease, Huntington's disease and epilepsy. Alternative treatments include surgery, deep brain stimulator implants and the use of pharmaceuticals. The Company may also face competition from companies and institutions involved in developing gene transfer and cell therapy treatments for other diseases, whose technologies may be adapted for the treatment of central nervous system disorders. Some companies, such as Genzyme Corp. (Genzyme ), Cell Genesys, Inc., and Targeted Genetics Corporation (Targeted Genetics ), have significant experience in developing and using AAV vectors to deliver gene transfer products.

Oxford Biomedica (Oxford ), a gene therapy company using the lentivirus to deliver therapeutic genes, announced results, in November 2008, from its low dose group of patients in its Phase 1/2 trial of its proprietary gene therapy, ProSavin, for the treatment of Parkinson's disease. Oxford indicated that the three patients showed improved motor function at six months and that the safety profile of ProSavin had been maintained at six months with no evidence of adverse events or immunologic reactions to the treatment. Oxford has not yet reported on its high dose group of patients in this Phase 1/2 trial. Oxford is in the first stage of its clinical trial in France, an open-label dose escalation study designed to evaluate at least two dose levels of ProSavin in cohorts of three patients each. If such trial is successful, Oxford has stated it will commence a Phase 3 trial in 2009 or 2010.

Ceregene, Inc. (Ceregene ), an affiliate company of Cell Genesys, Inc., announced, in November 2008, that its Phase 2 clinical trial for Parkinson's disease failed to demonstrate an appreciable difference between patients treated with AAV expressing the neurturin gene (a nerve growth factor) versus those in the control group. In June 2007, Ceregene announced that it had entered into a partnership with Genzyme for the development and commercialization of its Parkinson's indication. Under this partnership, Genzyme would have gained all marketing rights outside of the U.S. and Canada to Ceregene's Parkinson's indication. The Company is unaware of Ceregene's future plans with regard to this indication.

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Genzyme also purchased the AAV gene transfer assets of Avigen, Inc. (Avigen) in December 2005, including Avigen's AV201, an AAV vector containing the gene for AADC (aromatic amino acid decarboxylase) which is delivered directly to the part of the brain that requires dopamine to control movement. In August 2004, Avigen announced that the FDA had authorized it to initiate a Phase 1/2 clinical trial of gene transfer for the treatment of Parkinson's disease using AV201. Avigen commenced such trial, with its first patient undergoing gene transfer surgery in December 2004, and Genzyme has since taken over the control of the study. In May 2008, Genzyme published interim results of the trial in *Neurology*. According to the conclusions of the publication, Genzyme's gene therapy approach has been well tolerated thus far and shows PET evidence that the AADC gene is evident in the brain. This study is separate and distinct from Ceregene's study discussed above.

Many of the Company's competitors have significantly greater research and development, marketing, manufacturing, financial and/or managerial resources than the Company enjoys. Moreover, developments by others may render the Company's products or technologies noncompetitive or obsolete.

## ***Government Regulation***

All of the Company's potential products must receive regulatory approval before they can be marketed. Human therapeutic products are subject to rigorous pre-clinical and clinical testing and other pre-market approval procedures administered by the FDA and similar authorities in foreign countries. In accordance with the Federal Food, Drug and Cosmetics Act, the FDA exercises regulatory authority over, among other things, the development, testing, formulation, manufacture, labeling, storage, record keeping, reporting, quality control, advertising, promotion, export and sale of the Company's potential products. Similar requirements are imposed by foreign regulatory agencies. In some cases, state regulations may also apply.

Gene transfer is a relatively new technology that has not been extensively tested or shown to be effective in humans. The FDA reviews all product candidates for safety at each stage of clinical testing. Safety standards must be met before the FDA permits clinical testing to proceed to the next stage. Also, efficacy must be demonstrated before the FDA grants product approval. The approval process and ongoing compliance with applicable regulations after approval is time intensive and involves substantial risk and expenditure of financial and other resources. (See Risk Factors - The Company is Subject to Stringent Regulation; FDA Approvals).

Pre-clinical trials generally require studies in the laboratory or in animals to assess the potential product's safety and effectiveness. Pre-clinical trials include laboratory evaluation of toxicity; pharmacokinetics, or how the body processes and reacts to the drug; and pharmacodynamics, or whether the drug is actually having the expected effect on the body. Pre-clinical trials must be conducted in accordance with the FDA's Good Laboratory Practice regulations and, before any proposed clinical testing in humans can begin, the FDA must review the results of these pre-clinical trials as part of an IND.

If pre-clinical trials of a product candidate, including animal studies, demonstrate safety, and laboratory test results are acceptable, then the potential product may undergo clinical trials to test the therapeutic agent in humans. Human clinical trials are subject to numerous governmental regulations that provide detailed procedural and administrative requirements designed to protect the trial participants. Each institution that conducts human clinical trials has an Institutional Review Board or Ethics Committee charged with evaluating each trial and any trial amendments to ensure that the trial is ethical, subjects are protected and the trial meets the institutional requirements. These evaluations include reviews of how the institution will communicate the risks inherent in the clinical trial to potential participants, so that the subjects may give their informed consent. Clinical trials must be conducted in accordance with the FDA's Good Clinical Practices regulations and the protocols established by the Company to govern the



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trial objectives, the parameters to be used for monitoring safety, the criteria for evaluating the efficacy of the potential product and the rights of each participant with respect to safety. FDA regulations require the Company to submit these protocols as part of the application. FDA review or approval of the protocols, however, does not necessarily mean that the trial will successfully demonstrate safety and/or efficacy of the potential product. (See Risk Factors - The Company is Subject to Stringent Regulation; FDA Approvals ).

Institutions that receive National Institutes of Health (NIH) funding for gene transfer clinical trials must also comply with the NIH Recombinant DNA Guidelines, and the clinical trials are subject to a review by the RAC. The outcome of this review can be either an approval to initiate the trial without a public review or a requirement that the proposed trial be reviewed at a quarterly committee meeting. A clinical trial will be publicly reviewed when at least three of the committee members or the Director of the Office of Biotechnology Activities recommends a public review. The review by the RAC may also delay or impede the Company's clinical trials. (See Risk Factors - The Company's Research Activities are Subject to Review by the RAC ). On December 3, 2007, the Company reviewed its Parkinson's disease Phase 2 protocol with the RAC in a public forum. In December of 2008, the Company initiated its Phase 2 clinical trial for the treatment of advanced Parkinson's disease.

Clinical trials are typically conducted in three phases and may involve multiple studies in each phase. In Phase 1, clinical trials generally involve a small number of subjects, who may or may not be afflicted with the target disease, to determine the preliminary safety profile. In Phase 2, clinical trials are conducted with larger groups of subjects afflicted with the target disease in order to establish preliminary effectiveness and optimal dosages and to obtain additional evidence of safety. In Phase 3, large-scale, multi-center, comparative clinical trials are conducted with subjects afflicted with the target disease in order to provide enough data for the statistical proof of efficacy and safety required by the FDA and other regulatory agencies for market approval. The Company reports its progress in each phase of clinical testing to the FDA, which may require modification, suspension or termination of the clinical trial if it deems patient risk too high. The length of the clinical trial period, the number of trials conducted and the number of enrolled subjects per trial vary, depending on the Company's results and the FDA's requirements for the particular clinical trial. Although the Company and other companies in its industry have made progress in the field of gene transfer, it cannot predict what the FDA will require in any of these areas to establish to its satisfaction the safety and effectiveness of the product candidate. (See Risk Factors - The Company is Subject to Stringent Regulation; FDA Approvals ).

If the Company successfully completes clinical trials for a product candidate, it must obtain FDA approval or similar approval required by foreign regulatory agencies, as well as the approval of several other governmental and nongovernmental agencies, before it can market the product in the United States or in foreign countries. Current FDA regulations relating to biologic therapeutics require the Company to submit an acceptable BLA to the FDA to receive the FDA's approval before the Company may commence commercial marketing. The BLA includes a description of the Company's product development activities, the results of pre-clinical trials and clinical trials and detailed manufacturing information. Unless the FDA gives expedited review status (which the Company has been granted by the FDA with regards to Parkinson's disease), this stage of the review process generally takes at least one year. Should the FDA have concerns with regard to the potential product's safety and efficacy, it may request additional data, which could delay product review or approval. The FDA may ultimately decide that the BLA does not satisfy its criteria for approval and might require the Company to do any or all of the following:

- modify the scope of its desired product claims;
- add warnings or other safety-related information; and/or
- perform additional testing.



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Because the FDA has not yet approved any gene transfer products, it is not clear what, if any, unforeseen issues may arise during the approval process. The Company expects the FDA's regulatory approach to product approval, and its requirements with respect to product testing, to become more predictable as its scientific knowledge and experience in the field of gene transfer increases. Adverse events in the field of gene transfer or other biotechnology-related fields, however, could result in greater governmental regulation, stricter labeling requirements and potential regulatory delays in the testing or approval of gene transfer products. (See Risk Factors - Events in the General Field of Gene Transfer may Affect the Company's Ability to Develop its Products ).

Once approved by the FDA, marketed products are subject to continual review by the FDA, which could result in restrictions on marketing a product or in its withdrawal from the market, as well as potential criminal penalties or sanctions. (See Risk Factors - Once Approved by the FDA, the Company's Products Would Remain Subject to Continual FDA Review and Risk Factors - The Company May Face Liability Due to its Use of Hazardous Materials ).

For the fiscal year ended December 31, 2008, the Company's research and development expenses were approximately \$3.9 million, in the aggregate. The Company expects research and development expenses to increase in the current fiscal year, as the Company is currently conducting its Phase 2 clinical trial for Parkinson's disease. (See Item 7 - Management's Discussion and Analysis of Financial Condition and Results of Operations - Results of Operations ).

### ***Employees***

As of December 31, 2008, the Company had eleven full-time employees, of which seven are directly involved in its research and development activities, including product development, manufacturing, regulatory affairs and clinical affairs. Four of the Company's employees have Ph.D. degrees, with expertise in virology, protein chemistry and molecular biology. The Company's employees are not subject to any collective bargaining agreements, and the Company regards its relations with its employees to be good.

### ***Scientific Advisory Board***

The Company has assembled the SAB to advise the Company on the selection, implementation and prioritization of its research programs. The SAB, which currently consists of the following seven scientists, met one time in 2008.

*Paul Greengard, Ph.D.* Dr. Greengard has been a member and the chairman of the SAB since July 2003. Dr. Greengard receives an annual fee of \$25,000 for his participation in the SAB. Dr. Greengard is the Vincent Astor Professor and Chairman of the Laboratory of Molecular and Cellular Neuroscience at Rockefeller. Dr. Greengard was awarded the 2000 Nobel Prize in Physiology or Medicine. Dr. Greengard received a Ph.D. in biophysics from Johns Hopkins University. Prior to joining Rockefeller in 1983, Dr. Greengard was the director of biochemical research at the Geigy Research Laboratories and subsequently Professor of Pharmacology and Professor of Psychiatry at the Yale University School of Medicine. Dr. Greengard is an elected member of the U.S. National Academy of Sciences and its Institute of Medicine and of the American Academy of Arts and Sciences. He is also a foreign member of the Royal Swedish Academy of Sciences and a member of the Norwegian Academy of Science and Letters.

*Andrew J. Brooks, Ph.D.* Dr. Brooks has been a member of the SAB since January 2002. Dr. Brooks receives an annual fee of \$12,000 for his participation in the SAB. Dr. Brooks is currently the Director of the Bionomics Research and Technology Center ( BRTC ) at the Environmental and Occupational Health Science Institute of the University of Medicine and Dentistry of New Jersey ( UMDNJ ). He is also the Associate Director of Technology Development at Rutgers University's Cell and DNA Repository and an Associate Professor of





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Environmental Medicine and Genetics at UMDNJ. Dr. Brooks is a molecular neuroscientist whose research focuses on deciphering the molecular mechanisms that underlie memory and learning. These studies investigate gene-environment interactions in the context of aging, neurodegenerative disease and neurotoxicant exposure. Previously, Dr. Brooks was the Director of the Center for Functional Genomics in the Aab Institute for Biomedical Science at the University of Rochester from which he also received his Ph.D.

*Matthew J. During, M.D., D.Sc.* Dr. During, one of the Company's scientific co-founders, has been a member of the SAB since October 1999. Dr. During receives an annual fee of \$175,000 as a consultant to the Company (see Note 3 and Note 10 to Consolidated Financial Statements), but does not receive an additional fee for his participation in the SAB. Dr. During is currently Professor of Molecular Virology, Immunology and Medical Genetics at the Ohio State Medical School where he directs neuroscience and neurosurgical gene transfer programs. He is also a Professor of Molecular Medicine and Pathology at AUL. From June 2004 to February 2006 he was the Research Lab Director of the Department of Neurological Surgery at Cornell University. He served as Director of the CNS Gene Therapy Center and Professor of Neurosurgery at Jefferson Medical College from 1998 through 2002. From 1989 through 1998, Dr. During was an Assistant then Associate Professor of Neurosurgery at Yale University where he directed a translational neuroscience program and headed Yale's first gene transfer protocol. Dr. During received his M.D. and D.Sc. from the AUL School of Medicine and did further postgraduate training at M.I.T. from 1985 to 1987, Massachusetts General Hospital and Harvard Medical School from 1986 to 1989 and Yale University from 1988 to 1989.

*Michael G. Kaplitt, M.D., Ph.D.* Dr. Kaplitt, one of the Company's scientific co-founders, has been a member of the SAB since October 1999. Dr. Kaplitt receives an annual fee of \$175,000 as a consultant to the Company (see Note 3 and Note 10 to Consolidated Financial Statements), but does not receive an additional fee for his participation in the SAB. Dr. Kaplitt is the Victor and Tara Menezes Clinical Scholar, Associate Professor and Vice-Chairman for Research, Department of Neurological Surgery at Weill Medical College of Cornell University. He is also a Clinical Assistant Attending, Division of Neurosurgery, Department of Surgery at Memorial-Sloan Kettering Cancer Center, and Adjunct Faculty, Laboratory of Neurobiology and Behavior at Rockefeller. Dr. Kaplitt graduated magna cum laude with a Bachelor's degree in Molecular Biology from Princeton University. He received a Ph.D. in Molecular Neurobiology from Rockefeller in 1993 and his M.D. from Cornell University School of Medicine in 1995. He completed his neurosurgical residency training at the New York Hospital Cornell Medical Center in 2000 and a Fellowship in Stereotactic and Functional Neurosurgery at the University of Toronto, Toronto Ontario, Canada in 2001. Dr. Kaplitt is the son of Dr. Martin Kaplitt.

*Daniel H. Lowenstein, M.D.* Dr. Lowenstein has been a member of the SAB since January 2005. Dr. Lowenstein receives an annual fee of \$12,000 for his participation in the SAB. Dr. Lowenstein is Professor and Vice Chairman in the Department of Neurology at the University of California, San Francisco (UCSF), Director of the UCSF Epilepsy Center and Director of Physician-Scientist Training Programs for the UCSF School of Medicine. He received his M.D. degree from Harvard Medical School in 1983. Dr. Lowenstein established the UCSF Epilepsy Research Laboratory, and was the Robert B. and Ellinor Aird Professor of Neurology from 1998 to 2000. He then joined Harvard Medical School as the Dean for Medical Education and Carl W. Walter Professor of Neurology for two and a half years, and in 2003, moved back to UCSF in his current position. During 2004, he served as the President of the American Epilepsy Society. His research interests have included the molecular and cellular changes in neural networks following seizure activity and injury, and the clinical problem of status epilepticus. More recently, he has turned his attention to the genetics of epilepsy, and he is leading the Epilepsy Phenome/Genome Project, a large, national study aimed at identifying the genes responsible for the more common forms of epilepsy. Dr. Lowenstein has received several national awards for excellence in teaching and numerous academic honors and awards,

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including the American Epilepsy Society's 2001 Basic Research Award. Among his numerous publications, he has authored approximately 80 papers in peer-reviewed journals, 80 research abstracts and 43 review articles, editorials and book chapters.

*Andres M. Lozano, M.D., Ph.D.* Dr. Lozano has been a member of the SAB since April 2001. Dr. Lozano receives an annual fee of \$25,000 for his participation in the SAB. He is currently Professor of Neurosurgery and holds the Ronald Tasker Chair in Stereotactic and Functional Neurosurgery at The University of Toronto. Dr. Lozano received his M.D. from the University of Ottawa and a Ph.D. from McGill University. He completed a residency in Neurosurgery at the Montreal Neurological Institute prior to joining the staff at the University of Toronto. Dr. Lozano is the Past President of the American Society for Stereotactic and Functional Neurosurgery and the current President of the World Society for Stereotactic and Functional Neurosurgery.

*Eric J. Nestler, M.D., Ph.D.* Dr. Nestler has been a member of the SAB since May 2004. Dr. Nestler receives an annual fee of \$12,000 for his participation in the SAB. Dr. Nestler's research focuses on better understanding the molecular mechanisms of addiction and depression in animal models, and using this information to develop improved treatments for these disorders. He has authored or edited seven books and published more than 375 articles and reviews relating to the field of neuropsychopharmacology. From 1992-2000, he was Director of the Abraham Ribicoff Research Facilities and of the Division of Molecular Psychiatry at Yale University. From 2000-2008, he served as Professor and Chairman of the Department of Psychiatry at The University of Texas Southwestern Medical Center at Dallas. In 2008, he moved to the Mount Sinai School of Medicine in New York, where he is now Chairman of the Department of Neuroscience and Director of the Mount Sinai Brain Institute. Dr. Nestler's awards and honors include the Pfizer Scholars Award (1987), Sloan Research Fellowship (1987), McKnight Scholar Award (1989), Efron Award of the American College of Neuropsychopharmacology (1994), Pasarow Foundation Award for Neuropsychiatric Research (1998), Fondation Ipsen Prize in Neural Plasticity (2008), and the Patricia Goldman-Rakc Award from NARSAD (2008). He is a member of the Institute of Medicine (elected 1998) and a fellow of the American Academy of Arts and Sciences (elected 2005).

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

### **RISK FACTORS**

The following sets forth some of the business risks and challenges facing the Company as it seeks to develop its business:

#### **The Company is Still in the Development Stage and Has Not Generated any Revenues.**

From inception through December 31, 2008, the Company has incurred net losses of approximately \$34.3 million and negative cash flows from operating activities of approximately \$27.6 million. Because it takes years to develop, test and obtain regulatory approval for a gene-based therapy product before it can be sold, the Company likely will continue to incur significant losses and cash flow deficiencies for the foreseeable future. Accordingly, it may never be profitable and, if it does become profitable, it may be unable to sustain profitability.

#### **The Company Does Not Have Sufficient Funds to Continue its Operations in the Long Run or to Commercialize its Product Candidates.**

The Company's existing resources are not sufficient to enable it to obtain the regulatory approvals necessary to commercialize its current or future product candidates. The Company will from time to time need to raise additional funds through public or private equity offerings, debt financings or additional corporate collaboration and licensing arrangements. Availability of



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financing depends upon a number of factors beyond the Company's control, including market conditions and interest rates. The Company does not know whether additional financing will be available when needed, or, if available, whether any such financing will be on terms acceptable or favorable to the Company.

**The Company Has Not Demonstrated that it Can Establish Many Necessary Business Functions.**

The Company has not demonstrated that it can:

obtain the regulatory approvals necessary to commercialize product candidates that it may develop in the future;

manufacture, or arrange for third parties to manufacture, future product candidates in a manner that will enable the company to be profitable;

attract, retain and manage a large, diverse staff of physicians and researchers;

establish sales, marketing, administrative and financial functions;

develop relationships with third-party collaborators to assist in the marketing and/or distribution of the technologies that the Company may develop;

make, use and sell future product candidates without infringing upon third party intellectual property rights;

secure meaningful intellectual property protection covering its future product candidates; or

respond effectively to competitive pressures.

The Company will need to establish or otherwise arrange for such functions in order to operate in the long term.

**If the Clinical Trials for Parkinson's Disease are Unsuccessful, it Would Likely Have a Material Adverse Effect on the Company's Operations.**

The Company completed its Phase 1 clinical trial for the treatment of Parkinson's disease in 2006. In December of 2008, the Company commenced a Phase 2 clinical trial which is necessary prior to conducting a pivotal trial which could lead to commercialization of the product. However, the Company cannot ensure that the Phase 2 clinical trial can be completed successfully or that there will be no adverse effects or immunologic reactions in the patients.

If the Phase 2 clinical trial and any additional clinical trials for treatment of Parkinson's disease are unsuccessful, future operations and the potential for profitability will be significantly adversely affected and the business may not succeed. (See Business - Parkinson's Disease ).

**The Company Cannot Ensure that it will be Able to Pursue Further Trials for its Product Candidates or the Timing of any Future Trials.**

The Company's ability to conduct further trials for its product candidates depends upon a number of factors beyond the Company's control, including, but not limited to, regulatory reviews of trials, procurement of licenses from third parties and access to third party manufacturing facilities. Accordingly, the Company is unable to assure that it will be able to pursue further trials for any of its product candidates or the timing of any such trials. As previously stated, the

Company has experienced delays in the commencement of its Phase 1 clinical trials for epilepsy. (See Business Epilepsy ). As described directly below, the Company's ability to pursue further trials also depends upon the Company's ability to retain its current key physicians

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and researchers. As described above under "The Company Does Not Have Sufficient Funds to Continue its Operations in the Long Run or To Commercialize its Product Candidates", the Company will be required to raise additional capital from time to time in order to fund further trials.

### **The Company's Future Success Depends Upon Key Physicians and Researchers.**

The Company's future success depends, to a significant degree, on the skills, experience and efforts of its current key physicians and researchers, including Dr. Matthew During and Dr. Michael Kaplitt. If either of Dr. During or Dr. Kaplitt were unable or unwilling to continue his present relationship with the Company, it is likely that the Company's business, financial condition, operating results and future prospects would be materially adversely affected. Dr. During and Dr. Kaplitt are not employees of the Company, and they devote their attention to other projects and ventures in addition to the services that they render to the Company.

### **The Company is Subject to Stringent Regulation; FDA Approvals.**

The industry in which the Company competes is subject to stringent regulation by certain regulatory authorities. The Company may not obtain regulatory approval for any future product candidates that it develops. To market a pharmaceutical product in the United States requires the completion of rigorous pre-clinical testing and clinical trials and an extensive regulatory approval process implemented by the FDA. Satisfaction of regulatory requirements typically takes several years, depends upon the type, complexity and novelty of the product and requires the expenditure of substantial resources. The Company may encounter difficulties or unanticipated costs in its efforts to secure necessary governmental approvals, which could delay or prevent the marketing of its product candidates. The Company may encounter delays or rejections in the regulatory approval process resulting from additional governmental regulation or changes in policy during the period of product development, clinical trials and FDA regulatory review. In addition, the regulatory requirements governing gene transfer product candidates and commercialized products are subject to change.

Additionally, the Company must have access to an FDA approved catheter system that has been tested and found compatible to infuse the Company's gene transfer product into the brain. Currently, the Company is using a catheter system that was developed by Medtronic in collaboration with the Company. To date, such system has not received regulatory approval.

To the Company's knowledge, neither the FDA nor any other regulatory agency has approved a gene transfer product for sale in the United States.

### **The Company's Research Activities are Subject to Review by the RAC.**

As noted above, institutions that receive NIH funding for gene transfer clinical trials are subject to a review by the RAC. The outcome of this review can be either an approval to initiate the trial without a public review or a requirement that the proposed trial be reviewed at a quarterly committee meeting. Should the RAC require a public hearing, the start of the trial must be delayed until after the hearing date. Although the NIH guidelines do not have regulatory status, the RAC review process can impede the initiation of the trial, even if the FDA has reviewed the trial and approved its initiation. Before any gene transfer clinical trial can be initiated, the Institutional Biosafety Committee of each site must perform a review of the proposed clinical trial and ensure there are no safety issues associated with the trial.

### **The Company May Face Substantial Penalties if it Fails to Comply with Regulatory Requirements.**

Failure to comply with applicable FDA or other applicable regulatory requirements may result in criminal prosecution, civil penalties, recall or seizure of products, total or partial



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suspension of production or injunction, as well as other regulatory action against the Company's future product candidates or the Company itself. Outside the United States, the ability to market a product is also contingent upon receiving clearances from appropriate foreign regulatory authorities. The non-U.S. regulatory approval process includes risks similar to those associated with the FDA's clearance.

### **The Company Will Need to Conduct Significant Additional Research and Testing Before Conducting Clinical Trials Involving Future Product Candidates.**

Before the Company can conduct clinical trials involving future product candidates, the Company will need to conduct substantial research and animal testing, referred to as pre-clinical testing. It may take many years to complete pre-clinical testing and clinical trials and failure could occur at any stage of testing. Acceptable results in early testing or trials may not be repeated in later tests. Whether any products in pre-clinical testing or early stage clinical trials will receive approval is unknown. Before applications can be filed with the FDA for product approval, the Company must demonstrate that a particular future product candidate is safe and effective. The Company's failure to adequately demonstrate the safety and efficacy of future product candidates would prevent the FDA from approving such products. The Company's product development costs will increase if it experiences delays in testing or regulatory approvals or if it becomes necessary to perform more or larger clinical trials than planned. If the delays are significant, they could negatively affect the Company's financial results, ability to raise capital and the commercial prospects for future product candidates.

### **The Company's Future Success Depends Upon Acceptance of its Products by Health Care Administrators and Providers.**

The Company's future success depends upon the acceptance of its products by health care administrators and providers, patients and third-party payors (including, without limitation, health insurance companies, Medicaid and Medicare). Market acceptance will depend on numerous factors, many of which are outside the Company's control, including:

- the safety and efficacy of future product candidates, as demonstrated in clinical trials;
- favorable regulatory approval and product labeling;
- the frequency of product use;
- the availability, safety, efficacy and ease of use of alternative therapies;
- the price of future product candidates relative to alternative therapies; and
- the availability of third-party reimbursement.

### **Events in the General Field of Gene Transfer May Affect the Company's Ability to Develop its Products.**

Patient complications that may occur in gene-based clinical trials conducted by the Company and other companies and the resulting publicity surrounding them, as well as any other serious adverse events (SAE) in the field of gene transfer that may occur in the future, may result in greater governmental regulation of future product candidates and potential regulatory delays relating to the testing or approval of them. Even with the requisite approval, the commercial success of the Company's product candidates will depend in part on public acceptance of the use of gene therapy for the prevention or treatment of human disease. Public attitudes may be influenced by claims that gene transfer is unsafe, and gene transfer may not gain the acceptance of the public or the medical community. Negative

public reaction to gene transfer could result in greater governmental regulation, stricter clinical trial oversight and commercial

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product labeling requirements of gene therapies and could negatively affect demand for any products the Company may develop.

In July 2007, Targeted Genetics announced that the FDA had placed its gene transfer program for the treatment of inflammatory arthritis on hold due to the uncertainty of the cause of an SAE that occurred in one subject enrolled in the study. In November 2007, the FDA removed the hold on the study, after reviewing the safety data related to the SAE. The Company believes this SAE and the related clinical hold, in general, affected the progress in the area of gene transfer and specifically resulted in new testing requirements for enrolled subjects' safety.

### **Side Effects, Patient Discomfort, Defects or Unfavorable Publicity May Affect the Company's Ability to Commercialize its Products.**

The Company's results for its Phase 1 clinical trial for Parkinson's disease indicate that this treatment appears to be safe and well-tolerated in advanced Parkinson's disease, with no evidence of adverse effects or immunologic reaction related to the study treatment. However, the Company cannot assure that it will not discover unanticipated side effects, patient discomfort or product defects in connection with its additional trials for Parkinson's disease or its trials for any other product candidates. Unanticipated side effects, patient discomfort, or product defects discovered in connection with the Company's future trials may significantly impact the Company's ability to commercialize its products or achieve market acceptance. Commercialization could also be materially affected by unfavorable publicity concerning any of the Company's future product candidates, or any other product incorporating technology similar to that used by future product candidates.

### **The Company Does Not Have any Experience in Manufacturing Products for Commercial Sale.**

The Company does not have any experience in manufacturing products for commercial sale and, if the Company is not successful in engaging a third-party to manufacture its products, no assurance can be provided that it will be able to:

develop and implement large-scale manufacturing processes and purchase needed equipment and machinery on favorable terms;

hire and retain skilled personnel to oversee manufacturing operations;

avoid design and manufacturing defects; or

develop and maintain a manufacturing facility in compliance with governmental regulations, including the FDA's GMP.

### **The Company's Ability to Manufacture Products Depends upon FDA Approval and Access to Third-Party Manufacturing Facilities.**

The Company, or any third-party manufacturer that it contracts with to manufacture any future product candidate, must receive the FDA's approval before producing clinical material or commercial products. The Company's future product candidates may compete with other products for access to third-party manufacturing facilities and may be subject to delays in manufacture if third party manufacturers give priority to products other than the Company's future product candidates. The Company may be unable to manufacture commercial-scale quantities of gene-based therapy products or any quantities at all. Failure to successfully manufacture products in commercial-scale quantities, and on a timely basis, would prevent the Company from achieving its business objectives.



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**If the Company Fails to Meet Certain Milestones Related to its Intellectual Property Licenses with Third Parties, the Company Could Forfeit License Rights That Are Important to its Business.**

In addition to the Company's own patents, the Company relies on license agreements with third parties relating to its intellectual property. (See Business - Patents and Other Proprietary Rights ). These agreements require the Company to use commercially reasonable efforts to meet certain requirements, including meeting specified milestones, to keep the agreements in effect. If the Company is not able to meet its requirements and any agreement is terminated, the Company would forfeit the licenses granted under such agreement. In such event, the Company would lose its rights to use the intellectual property and technology covered by such agreement in its products. Any such loss may prevent the Company from further developing such products, which circumstance could have a material and adverse impact on the Company's operations and profitability.

**The Company's Intellectual Property Rights May Be Called into Question or Subject to Litigation.**

Because of the complex and difficult legal and factual questions that relate to patent positions in the Company's industry, no assurance can be provided that its future product candidates or technologies will not be found to infringe upon the intellectual property or proprietary rights of others. Third parties may claim that future product candidates or the Company's technologies infringe on their patents, copyrights, trademarks or other proprietary rights and demand that it cease development or marketing of those products or technologies or pay license fees. The Company may not be able to avoid costly patent infringement litigation, which will divert the attention of management and cash resources away from the development of new products and the operation of its business. No assurance can be provided that the Company would prevail in any such litigation. If the Company is found to have infringed on a third party's intellectual property rights, it may be liable for money damages, encounter significant delays in bringing products to market or be precluded from manufacturing particular future product candidates or using a particular technology.

**The Company May be Subject to Product Liability Claims in Connection with its Clinical and Pre-Clinical Trials.**

Pre-clinical and clinical trials of future product candidates, and any subsequent sales of products employing the Company's technology, may involve injuries to persons using those products as a result of mislabeling, misuse or product failure. Product liability insurance is expensive. Although the Company has purchased product liability insurance to cover claims made in connection with its completed Phase 1 clinical trial, its ongoing Phase 2 clinical trial for Parkinson's disease, its previously planned Phase 1 clinical trial for epilepsy and its potential clinical trial for Huntington's disease, there can be no assurance that this insurance will be available to the Company in the future on satisfactory terms, if at all. A successful product liability claim or series of claims brought against the Company in excess of any insurance coverage that it may obtain in the future would have a material adverse effect on its business, financial condition, results of operations and future prospects.

**The Company May Face Liability Due to its Use of Hazardous Materials.**

The Company's research and development processes may involve the use of hazardous materials, including chemicals and radioactive and biological materials. The risk of accidental contamination or discharge or any resultant injury from these materials cannot be completely eliminated. Federal, state and local laws and regulations govern the use, manufacture, storage, handling and disposal of these materials, including, but not limited to, the Occupational Safety and Health Act, the Environmental Protection Act, the Toxic Substances Control Act and the

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Resource Conservation and Recovery Act. The Company could be subject to civil damages in the event of an improper or unauthorized release of, or exposure of individuals to, such hazardous materials. In addition, claimants may sue the Company for injury or contamination that results from its use or the use by third parties of these materials, and the Company's liability may exceed its total assets. Compliance with environmental laws and regulations may be expensive and current or future environmental regulations may impair the Company's research, development or production efforts.

### **Once Approved by the FDA, the Company's Products Would Remain Subject to Continual FDA Review.**

Once approved by the FDA, marketed products are subject to continual FDA review. Later discovery of previously unknown problems or failure to comply with applicable regulatory requirements may result in restrictions on marketing a product or in its withdrawal from the market, as well as potential criminal penalties or sanctions. In addition, the FDA requires that manufacturers of a product comply with current GMP requirements, both as a condition to product approval and on a continuing basis. In complying with these requirements, the Company expects to expend significant amounts of time, money and effort in production, record keeping and quality control. All manufacturing facilities are subject to periodic inspections by the FDA. If major problems are identified during these inspections that could impact patient safety, the FDA could subject the Company to possible action, such as the suspension of product manufacturing, product seizure, withdrawal of approval or other regulatory sanctions. The FDA could also require the Company to recall a product.

## **Item 2. Properties**

In August 2004, the Company subleased 1,185 square feet of space at One Bridge Plaza, Fort Lee, New Jersey 07024 (the Sublease) from Palisade Capital Securities, LLC (PCS), an affiliated company, for use as its corporate offices. The Sublease provides for a base annual rent of approximately \$36,000 or \$3,000 per month through the expiration of the Sublease on June 30, 2009.

Effective April 13, 2007, the Company entered into a lease (the BPRA Lease) with Bridge Plaza Realty Associates, LLC (BPRA) for an additional 703 square feet of office space at One Bridge Plaza, Fort Lee, New Jersey 07024. The BPRA Lease, which expires in March 2010, provides for a base annual rent of approximately \$21,000 or \$2,000 per month through its term. Pursuant to an amendment to the BPRA Lease, dated February 1, 2008, the office space leased under the Sublease will be included under the BPRA Lease at a base annual rent of \$36,000 or \$3,000 per month effective July 1, 2009 through the term of the BPRA Lease.

In April 2006, the Company entered into a Facility Use Agreement (the Facility Use Agreement) and Visiting Scientist Agreements with The Ohio State University (OSU), all of which allow the Company's scientists to access and use OSU's laboratory facilities and certain equipment to perform their research under the direction of Dr. Matthew During. The term of the Facility Use Agreement is four years, subject to earlier termination under certain circumstances. The Facility Use Agreement will automatically terminate upon the termination of the Research Agreement with OSURF. As of December 31, 2008, the Company has paid OSU an amount of \$69,000 representing rent for the first three years of the Facility Use Agreement. Unless sooner terminated, the Company will pay an additional \$24,000 over the remaining year of such agreement. (See Note 10 to Consolidated Financial Statements).

One of the Company's scientists conducts research at Cornell University in New York City under the direction of Dr. Michael G. Kaplitt, as provided for by the Company's research agreement with Cornell.

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Management believes that the properties the Company leases are adequately covered by insurance.

**Item 3. Legal Proceedings**

None.

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

No matters were submitted to a vote of security holders during the fourth quarter of 2008.

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

The Company is prohibited from declaring, paying or setting aside any distribution or dividend for the shares of Common Stock, unless all accrued and unpaid dividends have been paid in full on all outstanding shares of Series C Convertible Preferred Stock, par value \$0.10 per share (the Series C Stock), and the Series D Stock.

The Company had 380 stockholders of record as of March 13, 2009. The Company did not pay cash dividends during the two-year period ended December 31, 2008 and does not currently expect to pay any cash dividends to stockholders in the foreseeable future.

The Common Stock is traded on the OTC Bulletin Board under the symbol NRGX.

The following table shows the high and low bid quotations as furnished by Bloomberg. The quotations shown reflect inter-dealer prices, without retail mark-up, markdown or commission and may not necessarily represent actual transactions.

**High and Low Bid Prices of Common Stock**

	Fiscal Year 2008		Fiscal Year 2007	
	High	Low	High	Low
First quarter	\$ 1.18	\$ 0.72	\$ 0.74	\$ 0.56
Second quarter	\$ 0.98	\$ 0.53	\$ 1.95	\$ 0.60
Third quarter	\$ 0.79	\$ 0.43	\$ 1.52	\$ 1.03
Fourth quarter	\$ 0.55	\$ 0.16	\$ 1.19	\$ 0.91

**Company Equity Compensation Plans**

The following table sets forth information as of December 31, 2008, with respect to compensation plans (including individual compensation arrangements) under which equity securities of the Company are authorized for issuance.

Number of securities to be issued upon exercise	Weighted-average exercise price of	Number of securities remaining available for future issuance under equity
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Plan Category	of outstanding options	outstanding options	compensation plans
2000 Stock Option Plan approved by stockholders	3,623,333	\$ 1.38	1,448,852
Total	3,623,333	\$ 1.38	1,448,852

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

The following discussion should be read in conjunction with the audited financial statements and accompanying notes of the Company for the fiscal year ended December 31, 2008. The Company's fiscal year ends on the last day of December in each year. References to 2008 and 2007 shall mean the Company's fiscal year ended on December 31st of such year. All amounts in this Item 7 are in thousands.

**Business Overview**

The Company is a development stage company that is engaged in the research and development of proprietary treatments for disorders of the brain and central nervous system using gene transfer and other innovative therapies. These treatments are designed as alternatives to conventional surgical and pharmacological treatments.

To date, the Company has not generated any operating revenues and has incurred annual net losses. From inception through December 31, 2008, the Company had an accumulated deficit of \$43,250, and it expects to incur additional losses for the foreseeable future. The Company recognized net losses of \$6,320 for the fiscal year ended December 31, 2008, and \$6,817 for the fiscal year ended December 31, 2007.

Since its inception, the Company has financed its operations primarily through sales of its equity and debt securities. From inception through December 31, 2008, the Company received proceeds primarily from private sales of equity and debt securities and from the Merger of approximately \$44,531 in the aggregate.

The Company has devoted a significant portion of its capital resources to the research and development of its products. Until recently, the Company's primary efforts had been directed to the development of its (i) Parkinson's product and (ii) temporal lobe epilepsy (TLE) product. As a result of certain additional time requirements and issues with respect to the TLE product (see Plan of Operation Epilepsy), the Company is currently concentrating its efforts on the development of its Parkinson's product.

In addition to its products for Parkinson's and TLE, the Company is undertaking efforts to develop its product for the treatment of Huntington's disease. The Company believes that its current resources are sufficient to conduct a clinical trial for its Huntington's product. Such trial would be conducted in a foreign location and would involve human patients who will receive a brain infusion of the Company's gene-based treatment for this disease. The timing of such trial is subject to the availability of the AAV vector and an infusion system, and to the receipt of applicable regulatory approvals. The Company does not anticipate using its current funds for the further development of its TLE product at this time. See Plan of Operation Epilepsy and Plan of Operation Huntington's disease below.

**Plan of Operation**

*Parkinson's Disease*

In October 2006, the Company announced that it had completed its Phase 1 clinical trial for Parkinson's disease. The results of this trial indicate that the treatment appears to be safe and well-tolerated in trial participants with advanced Parkinson's disease, with no evidence of adverse effects or immunologic reaction related to the study treatment. The trial, in which treatment was confined to only one side of the brain, also yielded statistically significant clinical efficacy and neuroimaging results. The results were peer-reviewed and published in the June 23, 2007 issue of the journal *The Lancet* and the online edition of the *Proceedings of the National Academy of Sciences* in November 2007.



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In December 2008, the Company initiated a Phase 2 clinical trial for Parkinson's disease. This trial is a randomized, controlled study designed to further establish the effectiveness and the safety of the treatment. The trial is being conducted in multiple medical centers throughout the U.S. with an expected 40 trial participants.

The Company will take steps to move toward a pivotal trial for treatment of Parkinson's disease, and hopes to be in a position to file its protocol with the FDA in 2010 or 2011. Currently, the Company estimates that the pivotal trial could be completed in 2013 and the estimated total direct costs to reach that milestone are expected to be in excess of \$20,000.

### *Huntington's disease*

In November 2005, the Company announced findings from pre-clinical studies which showed that a form of the gene XIAP (X-linked Inhibitor of Apoptosis Protein or dXIAP) may prevent the progression of Huntington's disease. The Company further investigated the neuroprotective effects of dXIAP by injecting presymptomatic rodents with AAV vectors encoding dXIAP into the striatum, an area of the brain normally affected in Huntington's patients. In the study, rodents injected with this vector experienced significant reversal of motor dysfunction to the level of normal rodents, while there was no improvement in rodents treated with a control vector. dXIAP also appeared to prolong the lifespan of the rodents. Furthermore, no adverse effects due to dXIAP overproduction were observed.

In August 2008, the Company entered into the Aegera License Agreement, whereby Aegera granted the Company an exclusive license for the worldwide rights, excluding China, for the use of dXIAP for therapeutic or prophylactic purposes in the treatment of Huntington's disease.

The Company's development of this therapy for Huntington's disease is currently in the pre-clinical phase. The Company is planning to conduct a clinical trial for this therapy, the timing of which is subject to the availability of the AAV vector and an infusion system, and to the receipt of applicable regulatory approvals. Such trial would be conducted in a foreign location and would involve human patients who will receive a brain infusion of the Company's gene-based treatment for this disease.

### *Epilepsy*

In December 2006, the Company submitted an IND to the FDA for permission to begin a Phase 1 clinical trial in TLE. The proposed clinical protocol for this study was presented to the RAC on September 23, 2004 and reviewed favorably.

During the second quarter of 2008, the Company learned that further action is required to protect adequately the Company's intellectual property rights in its technology relating to its TLE product. If the Company elects to proceed with its Phase 1 clinical trial for its TLE product, the Company, as previously disclosed, will conduct an additional pre-clinical study in non-human primates, which would be conducted in accordance with guidance received from the FDA.

Based on the foregoing, the commencement of a Phase 1 clinical trial for the Company's TLE product will be subject, among other things, to the successful resolution of the above mentioned intellectual property issues, to the successful completion of this additional pre-clinical study, the availability of funding, concurrence by the FDA and procurement of related intellectual property licenses.

**Table of Contents***Other Therapies*

The Company will also continue its efforts in developing therapies to treat other neurodegenerative and metabolic disorders, including depression and genetically-based obesity under its research agreements with Cornell and OSU.

*2009 Expenditures*

Over the next 12 months, in addition to its normal recurring expenditures, the Company expects to spend approximately: \$6,400 in Phase 2 clinical trial expenses with regard to its Parkinson's treatment; \$1,000 in costs associated with operating as a publicly traded company, such as legal fees, accounting fees, insurance premiums, investor and public relations fees; \$850 in research and licensing fees; \$500 in clinical trial expenses with regard to its Huntington's disease product; and \$200 in expenses in order to scale up its manufacturing capabilities for the supply of product for a Parkinson's pivotal trial.

**Results of Operations****Year Ended December 31, 2008 Compared to the Year Ended December 31, 2007**

*Revenues.* The Company did not generate any operating revenues in 2008 and 2007.

*Research and Development Expenses.* The following table summarizes the Company's research and development expenses for fiscal years ended December 31, 2008 and 2007 (certain prior period amounts have been reclassified to conform to current period presentation):

	<b>2008</b>	<b>2007</b>	<b>\$ Change</b>
Clinical Trial Expenses	\$ 1,155	\$ 1,125	\$ 30
Compensation Expenses	1,054	1,032	22
Research, Development and Licensing Fees	726	834	(108)
Medical and Scientific Consultants	503	618	(115)
Laboratory Supplies	191	249	(58)
Other R&D Expenses	300	431	(131)
Totals	\$ 3,929	\$ 4,289	\$ (360)

Research and development expenses decreased by \$360 in 2008 over the comparable expenses in 2007. The decrease is, in part, due to a \$345 reduction in charges associated with a development agreement and stock purchase agreement entered into with Medtronic, Inc. The decrease was also due to a \$115 reduction in cash and non-cash compensation expense for scientific consultants of the Company, a \$112 reduction in pre-clinical research expense related to the Company's epilepsy product and a \$54 reduction in costs associated with process development for large scale manufacturing of the Company's products. These decreases were offset by an increase, from the prior comparable period, of \$250 in fees associated with license agreements for the license of certain patent rights related to the Company's products. (See *Business - Patents and Other Proprietary Rights* ).

*General and Administrative Expenses.* General and administrative expenses decreased by \$43 to \$2,973 in 2008 as compared to \$3,016 in 2007. This decrease was primarily due to a \$120 decrease in cash and non-cash compensation expense to Company employees in 2008. The decrease was also due to a \$77 decrease in professional fees, including

accounting fees, investor and public relations fees and legal fees. These decreases were offset by an increase, from the prior comparable period, of \$153 in other general and administrative expenses, including \$44 in computer and website expenses, \$36 in franchise tax expense, \$32 in travel and entertainment expenses and \$29 in patent impairment and patent maintenance expense.

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*Other Income (Expense), Net.* The Company had net other income of \$582 in 2008 as compared to net other income of \$488 in 2007. This increase is a result of increased interest income earned on funds received by the Company during the fiscal years ended December 31, 2008 and 2007 from its private placements of the Series D Stock.

## **Liquidity and Capital Resources**

Cash and cash equivalents were \$18,906 at December 31, 2008.

The Company is still in the development stage and has not generated any operating revenues as of December 31, 2008. In addition, the Company will continue to incur net losses and cash flow deficiencies from operating activities for the foreseeable future.

Based on its cash flow projections, the Company believes that the Company's current resources will enable it to continue as a going concern through at least June 30, 2010. The Company's existing resources are not sufficient to allow it to perform all of the clinical trials required for drug approval and marketing, including a pivotal trial for Parkinson's disease. Accordingly, it will continue to seek additional funds through public or private equity offerings, debt financings or corporate collaboration and licensing arrangements. The Company does not know whether additional financing will be available when needed or, if available, will be on acceptable or favorable terms to it or its stockholders. (See Risk Factors ).

Net cash used in operating activities was \$5,959 in fiscal year 2008 as compared to \$5,401 in fiscal year 2007. The \$558 increase in net cash used in operations was primarily due to an \$832 increase in cash used as a result of changes to working capital in 2008 and a \$223 decrease in adjustments to net loss for decreased non-cash expenses, such as stock-based compensation expense, depreciation expense and amortization expense, offset by a \$497 increase in net loss in 2008.

The Company had net cash used in investing activities of \$224 during the year ended December 31, 2008 as compared to \$281 during the year ended December 31, 2007. This decrease was primarily due to a reduction in purchases of equipment during 2008.

Net cash provided by financing activities during the year ended December 31, 2008 was \$4,932 as compared to \$15,361 during the year ended December 31, 2007. During the year ended December 31, 2008, the Company completed a private placement of its Series D Stock that yielded \$4,932 in net proceeds. During the year ended December 31, 2007, the Company completed a private placement of its Series D Stock that yielded \$14,770 in net proceeds. Also in 2007, the Company received proceeds from the exercise of stock options of \$591.

## **Critical Accounting Estimates and Policies**

The Company's discussion and analysis and plan of operation is based upon its consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America for consolidated financial statements filed with the Securities and Exchange Commission (the SEC ). The preparation of these consolidated financial statements requires the Company to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an ongoing basis, the Company evaluates its estimates, including those related to fixed assets, intangible assets, stock-based compensation, income taxes and contingencies. The Company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the

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circumstances, the results of which form the 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.

The accounting policies and estimates used as of December 31, 2008, as outlined in the accompanying notes to the financial statements, have been applied consistently for the year ended December 31, 2008. The Company believes the following critical accounting policies affect the significant estimates and judgments used in the preparation of its consolidated financial statements.

*Carrying Value of Fixed and Intangible Assets*

The Company's fixed assets and certain of its patents have been recorded at cost. The Company's fixed assets are being amortized using accelerated methods and its patents are being amortized on a straight-line basis over the estimated useful lives of those assets. If the Company becomes aware of facts that indicate one or more of those assets may be impaired, the Company assesses whether the carrying value of such assets can be recovered through undiscounted future operating cash flows. If the Company determines that an asset is impaired, the Company measures the amount of such impairment by comparing the carrying value of the asset to the fair value determined by the present value of the expected future cash flows associated with the use of the asset. Adverse changes to the Company's estimates of the future cash flows to be received from a particular long-lived asset could indicate that the asset is impaired, and would require the Company to write down the asset's carrying value at that time.

*Research and Development*

Research and development expenses consist of costs incurred in identifying, developing and testing product candidates. These expenses consist primarily of salaries and related expenses for personnel, fees of the Company's scientific and research consultants and related costs, contracted research fees and expenses, clinical studies and license agreement milestone and maintenance fees. Research and development costs are expensed as incurred. Certain of these expenses, such as fees to consultants, fees to collaborators for research activities and costs related to clinical trials are incurred over multiple reporting periods. Management assesses how much of these multi-period costs should be charged to research and development expense in each reporting period.

*Stock Based Compensation*

Effective January 1, 2006, the Company adopted SFAS No. 123R, "Accounting For Share-Based Compensation". From that date forward, the Company records share-based compensation expense for all stock options issued to all persons to the extent that such options vest on January 1, 2006 or later. That expense is determined under the fair value method using the Black-Scholes option pricing model. The Company records that expense ratably over the period the stock options vest.

The Black-Scholes option pricing model used to compute share-based compensation expense requires extensive use of accounting judgment and financial estimates. Items requiring estimation include the expected term option holders will retain their vested stock options before exercising them, the estimated volatility of the Company's common stock price over the expected term of a stock option, and the number of stock options that will be forfeited prior

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to the completion of their vesting requirements. Application of alternative assumptions could result in significantly different share-based compensation amounts being recorded in the Company's financial statements.

The Company implemented SFAS No. 123R using the modified prospective transition method. Under this method, prior periods are not restated.

For equity awards to non-employees, the Company also applies the Black-Scholes method to determine the fair value of such awards in accordance with SFAS No. 123R and Emerging Issues Task Force Issue 96-18, *Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods, or Services*. The options granted to non-employees are re-measured as they vest and the resulting value is recognized as an expense against our net loss over the period during which the services are received.

## **Recent Accounting Pronouncements**

In September 2006, the FASB issued Statement of Financial Accounting Standards No. 157, *Fair Value Measurements* (SFAS 157), which defines fair value, establishes guidelines for measuring fair value and expands disclosures regarding fair value measurements. SFAS 157 does not require any new fair value measurements but rather eliminates inconsistencies in guidance found in various prior accounting pronouncements. SFAS 157 was effective for fiscal years beginning after November 15, 2007, and interim periods within those fiscal years. The provisions of SFAS 157 for financial assets and liabilities were adopted by the Company on January 1, 2008 and had no material impact on its consolidated financial position, results of operations or cash flows.

In February 2008, the FASB issued FASB Staff Position No. FAS 157-2, *Partial Deferral of the Effective Date of Statement 157* (FSP 157-2). FSP 157-2 delays the effective date of SFAS 157 for all nonfinancial assets and nonfinancial liabilities, except those that are recognized or disclosed at fair value in the financial statements on a recurring basis (at least annually) to fiscal years beginning after November 15, 2008. The Company is currently evaluating the impact of SFAS 157 on nonfinancial assets and nonfinancial liabilities, but does not expect the adoption to have a material impact on its consolidated financial position, results of operations or cash flows.

Effective January 1, 2008, the Company adopted SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities* (SFAS 159), including an amendment to FASB No. 115. SFAS 159 provides entities with the irrevocable option to measure eligible financial assets, financial liabilities and firm commitments at fair value, on an instrument-by-instrument basis, that are otherwise not permitted to be accounted for at fair value under other accounting standards. The adoption of SFAS 159 did not have a material impact on the Company's consolidated financial position, results of operations or cash flows as the Company did not elect this fair value option on any financial assets or liabilities.

Effective January 1, 2008, the Company adopted EITF Issue No. 07-1, *Accounting for Collaborative Arrangements* (EITF 07-1). EITF 07-1 defines collaborative arrangements and establishes reporting requirements for transactions between participants in a collaborative arrangement and between participants in the arrangement and third parties. EITF 07-1 also establishes the appropriate income statement presentation and classification for joint operating activities and payments between participants, as well as the sufficiency of the disclosures related



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to these arrangements. The adoption of EITF 07-1 did not have a material impact on the Company's consolidated financial position, results of operations or cash flows.

Effective January 1, 2008, the Company adopted EITF Issue No. 07-3, Accounting for Nonrefundable Advance Payments for Goods or Services Received to Be Used in Future Research and Development Activities ( EITF 07-3 ). EITF 07-3 requires that nonrefundable advance payments for goods or services that will be used or rendered for future research and development activities be deferred and amortized over the period that the goods are delivered or the related services are performed, subject to an assessment of recoverability. The adoption of EITF 07-03 did not have a material impact on the Company's consolidated financial position, results of operations or cash flows.

In March 2008, the FASB issued Statement of Financial Accounting Standards No. 161, Disclosures about Derivative Instruments and Hedging Activities an amendment of FASB Statement No. 133 ( SFAS 161 ). SFAS 161 requires entities that utilize derivative instruments to provide qualitative disclosures about their objectives and strategies for using such instruments, as well as any details of credit-risk-related contingent features contained within derivatives. SFAS 161 also requires entities to disclose additional information about the amounts and location of derivatives located within the financial statements, how the provisions of SFAS 133 have been applied, and the impact that hedges have on an entity's financial position, financial performance, and cash flows. SFAS 161 is effective for fiscal years and interim periods beginning after November 15, 2008, with early application encouraged. The Company is currently evaluating the impact of SFAS 161, but does not expect the adoption of SFAS 161 to have a material impact on its consolidated financial position, results of operations or cash flows.

In June 2008, the FASB ratified EITF Issue No. 07-05, Determining Whether an Instrument (or Embedded Feature) Is Indexed to an Entity's Own Stock. EITF Issue No. 07-05 clarifies the determination of whether an instrument (or an embedded feature) is indexed to an entity's own stock, which would qualify as a scope exception under SFAS No. 133, Accounting for Derivative Instruments and Hedging Activities. EITF Issue No. 07-05 is effective for financial statements issued for fiscal years beginning after December 15, 2008. Early adoption for an existing instrument is not permitted. The Company is currently assessing the potential impact, if any, the adoption of EITF Issue No. 07-05 may have on its consolidated financial position, results of operations and cash flows.

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

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

The Board of Directors and Stockholders  
Neurologix, Inc.  
Fort Lee, NJ

We have audited the accompanying consolidated balance sheets of Neurologix, Inc. and subsidiary (the Company) (a development stage company) as of December 31, 2008 and 2007, and the related consolidated statements of operations, changes in stockholders' equity (deficit) and cash flows for the years then ended, and for the period from February 12, 1999 (inception) to December 31, 2008. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We did not audit the consolidated statements of operations, shareholders' deficit and cash flows for the period from February 12, 1999 (inception) to December 31, 2005, which reflect expenses of approximately \$14.0 million, other expense, net of \$0.1 million, cash used in operating activities of \$11.4 million, cash used in investing activities of approximately \$3.8 million and cash provided by financing activities of \$16.4 million. Those financial statements were audited by another auditor whose report has been furnished to us, and our opinion, insofar as it relates to the amounts included for such period, is based solely on the report of the other auditor.

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 audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit 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, as well as evaluating the overall financial statement presentation. We believe that our audits and the report of the other auditor provide a reasonable basis for our opinion.

In our opinion, based on our audits and the report of the other auditor, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company at December 31, 2008 and 2007 and the results of its operations and its cash flows for the years then ended, and for the period from February 12, 1999 (inception) to December 31, 2008, in conformity with accounting principles generally accepted in the United States of America.

/s/ BDO Seidman, LLP  
BDO Seidman, LLP  
New York, New York  
March 20, 2009

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

The Board of Directors and Stockholders  
Neurologix, Inc.

We have audited the consolidated statements of operations, changes in stockholders' equity (deficiency) and cash flows of Neurologix, Inc. and subsidiary (the Company) (a development stage company) for the period from February 12, 1999 (date of inception) through December 31, 2005 as such amounts relate to the period from February 12, 1999 (date of inception) through December 31, 2008. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated 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 audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall consolidated financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated results of operations and cash flows of the Company (a development stage company) for the period from February 12, 1999 (date of inception) through December 31, 2005 as such amounts relate to the period from February 12, 1999 (date of inception) through December 31, 2008, in conformity with accounting principles generally accepted in the United States of America.

The consolidated financial statements referred to above had been prepared assuming that the Company would continue as a going concern. Through December 31, 2005, the Company had incurred recurring losses from operations and had negative cash flows from its operating activities. These matters raised substantial doubt about the Company's ability to continue as a going concern. Management's plans concerning these matters were described in the notes to the financial statements referred to above. The accompanying consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ J.H. Cohn LLP  
Jericho, New York  
March 24, 2006

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**NEUROLOGIX, INC. AND SUBSIDIARY**  
**(A Development Stage Company)**  
**CONSOLIDATED BALANCE SHEETS**  
(Amounts in thousands, except share and per share amounts)

	December 31, 2008	December 31, 2007
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$18,906	\$20,157
Prepaid expenses and other current assets	323	418
Total current assets	19,229	20,575
Equipment, less accumulated depreciation of \$542 and \$437 at December 31, 2008 and 2007, respectively	141	231
Intangible assets, less accumulated amortization of \$182 and \$127 at December 31, 2008 and 2007, respectively	748	623
Other assets	5	5
Total Assets	\$20,123	\$21,434
<b>LIABILITIES AND STOCKHOLDERS EQUITY</b>		
Current liabilities:		
Accounts payable and accrued expenses	\$850	\$1,265
Total liabilities	850	1,265
Commitments and contingencies		
Stockholders equity:		
Preferred stock; 5,000,000 shares authorized		
Series A Convertible, \$0.10 par value; 650 shares designated, 645 shares issued and outstanding at December 31, 2008 and 2007, with an aggregate liquidation preference of \$1	-	-
Series C Convertible, \$0.10 par value; 700,000 shares designated, 285,878 and 295,115 shares issued and outstanding at December 31, 2008 and 2007, respectively, with an aggregate liquidation preference of \$5,863 and \$6,529 at December 31, 2008 and 2007, respectively	29	30
Series D Convertible, \$0.10 par value; 792,100 shares designated, 734,898 and 597,149 shares issued and outstanding at December 31, 2008 and 2007, respectively, with an aggregate liquidation preference of \$27,031 and	73	60

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\$22,673, at December 31, 2008 and 2007, respectively

Common Stock:

\$0.001 par value; 100,000,000 shares authorized, 27,764,058 and 27,632,808 shares issued and outstanding at December 31, 2008 and 2007, respectively

	28	28
Additional paid-in capital	62,393	56,207
Deficit accumulated during the development stage	(43,250)	(36,156)
Total stockholders' equity	19,273	20,169
Total Liabilities and Stockholders' Equity	\$20,123	\$21,434

See accompanying notes to consolidated financial statements.

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**NEUROLOGIX, INC. AND SUBSIDIARY**  
**(A Development Stage Company)**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**  
**(Amounts in thousands, except share and per share amounts)**

	Year Ended December 31,		For the period February 12, 1999 (inception) through December 31, 2008
	2008	2007	
Revenues	\$ -	\$ -	\$ -
Operating expenses:			
Research and development	3,929	4,289	19,617
General and administrative expenses	2,973	3,016	16,100
Loss from operations	(6,902)	(7,305)	(35,717)
Other income (expense):			
Dividend, interest and other income	582	488	1,826
Interest expense-related parties	-	-	(411)
Other income, net	582	488	1,415
Net loss	(6,320)	(6,817)	\$(34,302)
Preferred stock dividends	(2,652)	(1,395)	
Charge for accretion of beneficial conversion feature	(562)	(2,130)	
Charge for contingent beneficial conversion feature related to Series C Preferred Stock	(212)	(627)	
Charges for induced conversion of Series C Preferred Stock	-	(2,796)	
Net loss applicable to common stock	\$(9,746)	\$(13,765)	

Net loss applicable to common stock per share, basic and diluted	\$(0.35)	\$(0.51)
Weighted average common shares outstanding, basic and diluted	27,692,337	26,764,087

See accompanying notes to consolidated financial statements.

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**NEUROLOGIX, INC. AND SUBSIDIARY**  
**(A Development Stage Company)**  
**CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS EQUITY (DEFICIENCY)**  
**FOR THE PERIOD FROM FEBRUARY 12, 1999 (INCEPTION) THROUGH DECEMBER 31, 2008**  
**(Amounts in thousands, except for share and per share amounts)**

	Series D Preferred Stock		Series C Preferred Stock		Common Stock		Additional Paid-in Capital		Unearned Compensation	Deficit Accumulated During the Development Stage	Total
	Shares	Amount	Shares	Amount	Shares	Amount					
Sale of common stock to founders	-	\$ 0	-	\$ 0	6,004,146	\$ 0	\$ 4	\$ 0	\$ 0	\$ 4	
Net loss	-	-	-	-	-	-	-	-	(328)	(328)	
<b>Balance, December 31, 1999</b>	-	0	-	0	6,004,146	0	4	0	(328)	(324)	
Net loss	-	-	-	-	-	-	-	-	(1,055)	(1,055)	
<b>Balance, December 31, 2000</b>	-	0	-	0	6,004,146	0	4	0	(1,383)	(1,379)	
Stock options granted for services	-	-	-	-	-	-	9	-	-	9	
Common stock issued for intangible assets at \$0.09 per share	-	-	-	-	259,491	-	24	-	-	24	
Net loss	-	-	-	-	-	-	-	-	(870)	(870)	
<b>Balance, December 31, 2001</b>	-	0	-	0	6,263,637	0	37	0	(2,253)	(2,216)	
Retirement of founder shares	-	-	-	-	(33,126)	-	-	-	-	-	
	-	-	-	-	368,761	-	577	(577)	-	-	



Common Stock issued pursuant to license agreement at \$1.56 per share										
Private placement of Series B convertible preferred stock	-	-	-	-	-	-	2,613	-	-	2,613
Amortization of unearned compensation	-	-	-	-	-	-	-	24	-	24
Net loss	-	-	-	-	-	-	-	-	(1,310)	(1,310)
<b>Balance, December 31, 2002</b>	-	0	-	0	6,599,272	0	3,227	(553)	(3,563)	(889)
Sale of Common Stock	-	-	-	-	276,054	-	90	(89)	-	1
Amortization of unearned compensation	-	-	-	-	-	-	-	164	-	164
Net loss	-	-	-	-	-	-	-	-	(2,274)	(2,274)
<b>Balance, December 31, 2003</b>	-	0	-	0	6,875,326	0	3,317	(478)	(5,837)	(2,998)
Conversion of note payable to Common Stock at \$2.17 per share	-	-	-	-	1,091,321	1	2,371	-	-	2,372
Conversion of mandatory redeemable preferred stock to Common Stock	-	-	-	-	6,086,991	6	494	-	-	500
Conversion of Series B convertible preferred stock to Common Stock	-	-	-	-	1,354,746	1	(1)	-	-	-
Effects of reverse acquisition	-	-	-	-	7,103,020	14	5,886	-	-	5,900
	-	-	-	-	-	-	-	202	-	202

Amortization of unearned compensation										
Stock options granted for services	-	-	-	-	-	-	42	(42)	-	-
Exercise of stock options	-	-	-	-	10,000	-	15	-	-	15
Net loss	-	-	-	-	-	-	-	-	(2,937)	(2,937)
<b>Balance, December 31, 2004</b>	-	0	-	0	22,521,404	22	12,124	(318)	(8,774)	3,054
Sale of Common Stock through private placement at an average price of \$1.30 per share	-	-	-	-	2,473,914	4	3,062	-	-	3,066
Sale of Common Stock at an average price of \$1.752 per share and warrants to Medtronic	-	-	-	-	1,141,552	1	2,794	-	-	2,795
Amortization of unearned compensation	-	-	-	-	-	-	-	825	-	825
Stock options granted for services	-	-	-	-	-	-	1,305	(1,305)	-	-
Exercise of stock options	-	-	-	-	406,054	-	127	-	-	127
Net loss	-	-	-	-	-	-	-	-	(5,345)	(5,345)

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<b>Balance, December 31, 2005</b>	-	0	-	0	26,542,924	27	19,412	(798)	(14,119)	4,522
Change in fair value of preferred Stock through private placement at an average price of \$35.00 per share	-	-	342,857	34	-	-	11,578	-	-	11,612
Change in fair value of non-convertible preferred Stock issued in connection with issuance of Series C preferred Stock	-	-	-	-	-	-	2,621	-	-	2,621
Change in fair value of non-convertible preferred Stock resulting from dividend and accretion of fair value of non-convertible preferred Stock	-	-	25,298	3	-	-	(3)	-	(2,621)	(2,621)
Change in fair value of non-employee share-based compensation expense	-	-	-	-	-	-	1,193	-	-	1,193
Change in fair value of non-employee share-based compensation expense reclassification of prior year non-employee share-based compensation to employee share-based compensation	-	-	-	-	-	-	83	-	-	83
Change in fair value of non-employee share-based compensation expense resulting from adoption of FAS 123R	-	-	-	-	-	-	(311)	311	-	-
Change in fair value of non-employee share-based compensation expense resulting from net loss	-	-	-	-	-	-	-	-	(7,046)	(7,046)
<b>Balance, December 31, 2006</b>	-	0	368,155	37	26,542,924	27	34,573	-	(23,786)	10,851
Change in fair value of Series D preferred Stock	428,571	43	-	-	-	-	14,727	-	-	14,770

through private placement at an average price of \$35.00 per share											
fair value of beneficial conversion rights issued in connection with the issuance of Series D Preferred Stock	-	-	-	-	-	-	2,130	-	-	2,130	
decrease in fair value of beneficial conversion rights	5,108	1	68,801	7	-	-	(8)	-	(2,130)	(2,130)	
contingent beneficial conversion feature related to Series C Preferred Stock	-	-	-	-	-	-	627	-	(627)	-	
conversion of preferred stock in connection with the issuance of Series D Preferred Stock	163,470	16	(230,184)	(23)	-	-	(347)	-	354	-	
conversion of preferred stock in connection with induced conversion of preferred stock	-	-	93,940	9	-	-	2,949	-	(2,958)	-	
issuance of Common Stock in connection with issuance of Series D Preferred Stock	-	-	-	-	192,017	-	192	-	(192)	-	
employee share-based compensation expense	-	-	-	-	-	-	702	-	-	702	
	-	-	-	-	-	-	72	-	-	72	

Non-employee share-based compensation										
Conversion of Series C Preferred Stock to Common Stock	-	-	(5,597)	-	110,052	-	-	-	-	-
Exercise of Stock options	-	-	-	-	787,815	1	590	-	-	591
Net loss	-	-	-	-	-	-	-	-	(6,817)	(6,817)
<b>Balance, December 31, 2007</b>	597,149	60	295,115	30	27,632,808	28	56,207	-	(36,156)	20,169
Sale of Series D Preferred Stock through private placement at an average price of \$35.00 per share	142,857	14	-	-	-	-	4,918	-	-	4,932
Fair value of Beneficial Conversion Rights issued in connection with the issuance of Series D Preferred Stock	-	-	-	-	-	-	562	-	-	562
Accretion of fair value of Beneficial Conversion Rights	-	-	-	-	-	-	-	-	(562)	(562)
Contingent Beneficial Conversion Feature related to Series C Preferred Stock	-	-	-	-	-	-	212	-	(212)	-
Adjustment to Preferred Dividends Accrued	(5,108)	(1)	(3,237)	(1)	-	-	2	-	-	-
Employee Share-based Compensation Expense	-	-	-	-	-	-	489	-	-	489
Non-employee Share-based	-	-	-	-	-	-	3	-	-	3

Compensation										
Conversion of										
Series C										
Preferred Stock										
to Common										
Stock	-	-	(6,000)	-	131,250	-	-	-	-	-
Net loss	-	-	-	-	-	-	-	-	(6,320)	(6,320)
<b>Balance,</b>										
<b>December 31,</b>										
<b>2008</b>	734,898	\$ 73	285,878	\$ 29	27,764,058	\$ 28	\$ 62,393	\$ -	\$ (43,250)	\$ 19,273

See accompanying notes to consolidated financial statements.

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**NEUROLOGIX, INC. AND SUBSIDIARY**  
**(A Development Stage Company)**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
**(Amounts in thousands)**

	Year Ended December 31,		For the period February 12, 1999 (inception)
	2008	2007	through December 31, 2008
Operating activities:			
Net loss	\$(6,320)	\$(6,817)	\$(34,302)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation	105	108	548
Amortization	55	48	322
Gain on redemption of investment	-	(62)	(62)
Stock options granted for services	-	-	9
Impairment of intangible assets	29	17	194
Amortization of non-employee share-based compensation	47	135	1,479
Share-based employee compensation expense	489	702	2,384
Non-cash interest expense	-	-	378
Changes in operating assets and liabilities			
Decrease (increase) in prepaid expenses and other current assets	51	(68)	653
Increase (decrease) in accounts payable and accrued expenses	(415)	536	789
 Net cash used in operating activities	 (5,959)	 (5,401)	 (27,608)
Investing activities:			
Security deposits paid	-	-	(7)
Purchases of equipment	(15)	(170)	(575)
Additions to intangible assets	(209)	(176)	(1,234)
Proceeds from redemption of investment	-	65	65
Purchases of marketable securities	-	-	(12,673)
Proceeds from maturities of marketable securities	-	-	12,673
 Net cash used in investing activities	 (224)	 (281)	 (1,751)
Financing activities:			

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Proceeds from note payable	-	-	1,100
Borrowings from related party	-	-	2,000
Cash acquired in Merger	-	-	5,413
Merger-related costs	-	-	(375)
Payments of capital lease obligations	-	-	(99)
Proceeds from exercise of stock options	-	591	733
Proceeds from issuance of common stock and warrants	-	-	5,066
Proceeds from issuance of preferred stock	4,932	14,770	34,427
Net cash provided by financing activities	4,932	15,361	48,265
Net increase in cash and cash equivalents	(1,251)	9,679	18,906
Cash and cash equivalents, beginning of period	20,157	10,478	-
Cash and cash equivalents, end of period	\$18,906	\$20,157	\$18,906
Supplemental disclosure of non-cash investing and financing activities:			
Dividends on Series C Preferred Stock paid in preferred shares	\$-	\$1,197	\$1,811
Accrued dividends on Preferred Stock	\$2,652	\$198	\$2,944
Accretion of fair value of beneficial conversion on preferred stock	\$562	\$2,130	\$5,313
Accretion of contingent beneficial conversion related on Series C Preferred Stock	\$212	\$627	\$839
Induced conversion of preferred stock in connection with issuance of Series D Preferred Stock	\$-	\$2,796	\$2,796
Issuance of Common Stock to pay debt	\$-	\$-	\$2,372
Reverse acquisition net liabilities assumed, excluding cash	\$-	\$-	\$(214)
Mandatory redeemable convertible preferred stock converted to Common Stock	\$-	\$-	\$500
Common Stock issued to acquire intangible assets	\$-	\$-	\$24
Stock options granted for services	\$-	\$-	\$1,424
Deferred research and development cost resulting from Medtronic Stock Purchase	\$-	\$-	\$795
Acquisition of equipment through capital leases	\$-	\$-	\$106

See accompanying notes to consolidated financial statements.



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**Neurologix, Inc. and Subsidiary**  
**(A Development Stage Company)**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**(Amounts in thousands, except for share and per share amounts)**

**(1) Description of Business**

Neurologix, Inc. (Neurologix or the Company), is engaged in the research and development of proprietary treatments for disorders of the brain and central nervous system, primarily utilizing gene therapies. These treatments are designed as alternatives to conventional surgical and pharmacological treatments. The Company has not generated any operating revenues and, accordingly, it is a developmental stage company.

The Company incurred net losses of \$6,320, \$6,817 and \$34,302 and negative cash flows from operating activities of \$5,959, \$5,401 and \$27,608 for the years ended December 31, 2008 and 2007 and for the period from February 12, 1999 (inception) to December 31, 2008, respectively. The Company expects that it will continue to incur net losses and cash flow deficiencies from operating activities for the foreseeable future.

On November 19, 2007, the Company completed a private placement of its newly created series of preferred stock, the Series D Convertible Preferred Stock, par value \$0.10 per share (the Series D Stock), resulting in net proceeds to the Company, after expenses, of \$14,770 (See Note 9). On April 28, 2008, the Company completed a private placement of Series D Stock, resulting in net proceeds to the Company, after expenses, of \$4,932 (See Note 9).

As of December 31, 2008, the Company had cash and cash equivalents of \$18,906. Management believes that, as a result of these offerings, the Company's current resources will enable it to continue as a going concern through at least June 30, 2010. The Company's existing resources, however, are not sufficient to allow it to perform all of the clinical trials required for drug approval and marketing. Accordingly, it will, from time to time, continue to seek additional funds through public or private equity offerings, debt financings or corporate collaboration and licensing arrangements. The Company does not know whether additional financing will be available when needed, or if available, will be on acceptable or favorable terms to it or its stockholders.

**(2) Summary of significant accounting policies and basis of presentation**

**(a) Basis of Presentation:**

On February 10, 2004, the Company completed the merger (the Merger) of its newly-formed, wholly-owned subsidiary NRI. Following the Merger, NRI became a wholly-owned subsidiary of the Company and stockholders of NRI received an aggregate number of shares of the Company's common stock, par value \$0.001 per share (the Common Stock), representing approximately 68% of the total number shares of Common Stock outstanding after the Merger. The shares of NRI common stock, convertible preferred stock and Series B convertible preferred stock outstanding at the effective time of the Merger were converted into an aggregate of 15,408,413 shares of Common Stock and outstanding options to purchase an aggregate of 257,000 shares of the NRI common stock were converted into options to purchase an aggregate of 709,459 shares of Common Stock. In addition, the Board and management of the Company were then controlled by members of the board of directors and management of NRI prior to the Merger.

Accordingly, the Merger was accounted for as a reverse acquisition, with NRI being the accounting parent and Neurologix being the accounting subsidiary. The consolidated financial statements include the operations of Neurologix, the accounting subsidiary, from the date of acquisition. Since the Merger was accounted for as a reverse acquisition, the accompanying



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financial statements reflect the historical financial statements of NRI, the accounting acquirer, as adjusted for the effects of the exchange of shares on its equity accounts, the inclusion of net liabilities of the accounting subsidiary as of February 10, 2004 on their historical basis and the inclusion of the accounting subsidiary's results of operations from that date.

On September 10, 2004, the Company amended and restated its Certificate of Incorporation, as a result of which it effected a reverse stock split of the shares of Common Stock at a ratio of 1 for 25 and reduced the Company's number of authorized shares of Common Stock from 750,000,000 to 60,000,000. All information related to Common Stock, preferred stock, options and warrants to purchase Common Stock and loss per share included in the accompanying consolidated financial statements has been retroactively adjusted to give effect to the Company's 1 for 25 reverse stock split, which became effective on September 10, 2004.

Effective December 31, 2005, the Company completed a short-form merger whereby its operating subsidiary, NRI, was merged with and into the Company. Following the merger, NRI no longer exists as a separate corporation. As the surviving corporation in the merger, the Company assumed all rights and obligations of NRI. The short form merger was completed for administrative purposes and did not have any material impact on the Company or its operations or financial statements.

On May 9, 2007, at the Company's Annual Meeting of Stockholders, the Company's Certificate of Incorporation was restated to: (i) increase the number of authorized shares of Common Stock from 60,000,000 to 100,000,000, (ii) increase the total number of authorized shares of capital stock from 65,000,000 to 105,000,000, (iii) delete the designation of Series B Preferred Stock and (iv) decrease the number of authorized shares of Series A Preferred Stock from 300,000 to 650.

Certain prior period amounts have been reclassified to conform to the current period presentation.

**(b) *Development Stage:***

The Company has not generated any revenues and, accordingly, is in the development stage as defined in Statement of Financial Accounting Standards (SFAS) No. 7, Accounting and Reporting for Development Stage Enterprises.

**(c) *Principles of Consolidation:***

The consolidated financial statements include the accounts of the Company and its former wholly owned subsidiary, NRI. All significant intercompany transactions and balances have been eliminated in consolidation.

**(d) *Use of Estimates:***

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the 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. Significant estimates embedded in the consolidated financial statements for the periods presented concern those

related to intangible assets, stock-based compensation, income

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taxes and contingencies. The Company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources.

**(e) *Cash and Cash Equivalents:***

The Company considers all highly liquid investments purchased with an original maturity when purchased of three months or less to be cash equivalents. The Company is subject to credit risk related to its cash equivalents and marketable securities. From time to time, the Company places its cash and cash equivalents in money market funds and United States Treasury bills with a maturity of three months or less.

**(f) *Equipment:***

Equipment is stated at cost less accumulated depreciation. The Company records depreciation of property and equipment using accelerated methods over an estimated useful life of between three and seven years.

**(g) *Intangible Assets:***

Intangible assets consist of patents and patent rights developed internally and obtained under licensing agreements and are amortized on a straight-line basis over their estimated useful lives, which range from 15 to 20 years. Neurologix estimates amortization expenses related to intangible assets owned as of December 31, 2008 to be approximately \$70 per year for the next five years.

**(h) *Impairment of Long-Lived Assets:***

The Company follows SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*, which requires impairment losses to be recorded on long-lived assets with definitive lives when indicators of impairment are present and the undiscounted cash flows estimated to be generated by those assets are less than the asset's carrying amount. In the evaluation of the fair value and future benefits of long-lived assets, the Company performs an analysis of the anticipated undiscounted future net cash flows of the related long-lived assets. If the carrying value of the related asset exceeds the undiscounted cash flows, the carrying value is reduced to its fair value. Various factors including future sales growth and profit margins are included in this analysis. The Company recognized losses of \$29 and \$17 associated with abandoned patent applications that were written-off in 2008 and 2007, respectively.

**(i) *Income Taxes:***

The Company complies with SFAS No. 109, *Accounting for Income Taxes*, which requires an asset and liability approach to financial accounting and reporting for income taxes. Deferred income tax assets and liabilities are computed for temporary differences between the financial statement and tax bases of assets and liabilities that will result in future taxable or deductible amounts, based on enacted tax laws and rates applicable to the periods in which the differences are expected to affect taxable income. Valuation allowances are established, when necessary, to reduce deferred tax assets to the amount expected to be realized.



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In June 2006, the FASB issued FASB Interpretation No. 48 (FIN 48) Accounting for Uncertainty in Income Taxes (an interpretation of FASB Statement No. 109) which became effective in 2007. This interpretation was issued to clarify the accounting for uncertainty in the amount of income taxes recognized in the financial statements by prescribing a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position 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 the taxing authorities. The amount recognized is measured as the largest amount of benefit that is greater than 50 percent likely of being realized upon ultimate settlement. The provisions of FIN 48 were adopted by the Company on January 1, 2007 and had no effect on the Company's financial statements upon adoption, as the Company did not have any unrecognized tax benefits. The Company also evaluated its tax positions as of December 31, 2008 and 2007 and reached the same conclusion.

**(j) *Research and Development:***

Research and development expenses consist of costs incurred in identifying, developing and testing product candidates. These expenses consist primarily of salaries and related expenses for personnel, fees of the Company's scientific and research consultants and related costs, contracted research fees and expenses, clinical studies and license agreement milestone and maintenance fees. Research and development costs are expensed as incurred. Up front license fees are expensed when paid, and milestone fees are expensed upon the attainment of such milestone. Certain other expenses, such as fees to consultants, fees to collaborators for research activities and costs related to clinical trials, are incurred over multiple reporting periods. Management assesses how much of these multi-period costs should be charged to research and development expense in each reporting period.

**(k) *Stock-Based Compensation:***

At December 31, 2008, the Company had one active share-based employee compensation plan. Stock option awards granted from this plan are granted at the fair market value on the date of grant, and vest over a period determined at the time the options are granted, ranging from one to five years, and generally have a maximum term of ten years. Certain options provide for accelerated vesting if there is a change in control (as defined in the plans) or if there is a termination of employment event for specified reasons set forth in certain employment agreements. When options are exercised, new shares of Common Stock are issued.

At the Company's Annual Meeting of Stockholders held on May 9, 2006, the Company's 2000 Stock Option Plan was amended to increase the number of shares that may be issued pursuant thereto from 1,300,000 to 3,800,000 shares. At the Company's Annual Meeting of Stockholders held on May 8, 2008, the Company's 2000 Stock Option Plan was amended to increase the number of shares that may be issued pursuant thereto from 3,800,000 to 6,000,000 shares.

Effective January 1, 2006, the Company adopted SFAS No. 123R Share-based Payment (SFAS 123R) for employee stock options and other share based compensation using the modified prospective method. Under SFAS 123R, compensation expense is recognized for awards that are granted, modified or cancelled on or after January 1, 2006 as well as for the portion of awards previously granted that had not vested as of January 1, 2006. Compensation expense for these previously granted awards is being recognized over the remaining service





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period using the compensation cost calculated based on the same estimate of grant-date fair value previously reported for pro-forma disclosure purposes under SFAS No. 123.

The amount of compensation expense recognized under SFAS 123R during the years ended December 31, 2008 and 2007 was comprised of the following (in thousands):

	<b>Fiscal Year Ended December 31,</b>	
	<b>2008</b>	<b>2007</b>
Research and development	\$132	\$219
General and administrative	357	483
Share-based compensation expense	\$489	\$702
Net share-based compensation expenses per basic and diluted common share	\$(0.02)	\$(0.03)

A summary of option activity for the two years ended December 31, 2008 is presented below:

<b>Options</b>	<b>Shares Subject to Option (000)</b>	<b>Weighted-Average Exercise Price</b>	<b>Weighted-Average Remaining Contractual Term (years)</b>	<b>Aggregate Intrinsic Value</b>
Outstanding at December 31, 2006	3,016	\$1.50		
Granted	718	1.15		
Exercised	(788)	0.75		
Forfeited or expired	(69)	1.56		
Outstanding at December 31, 2007	2,877	1.61		
Granted	906	0.62		
Exercised	-	-		
Forfeited or expired	(160)	1.30		

Outstanding at December 31, 2008	3,623	\$1.38	6.60	\$0
Exercisable at December 31, 2008	2,603	\$1.59	6.04	\$0

The fair value of each stock option award is estimated under SFAS 123R on the date of the grant using the Black-Scholes option pricing model based on the assumptions noted in the following table. Expected volatility is based on historical volatility of the Common Stock. See Note 7 for additional information about the Company's stock compensation plans. The risk-free rate is based on the five-year U.S. Treasury security rate.

The expected option term represents the period that stock-based awards are expected to be outstanding based on the simplified method provided in Staff Accounting Bulletin No. 107 (SAB 107) which averages an award's weighted-average vesting period and expected term for plain vanilla share options. Under SAB 107, options are considered to be plain vanilla if they have the following basic characteristics: granted at-the-money; exercisability is conditioned upon service through the vesting date; termination of service prior to vesting results in

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forfeiture; limited exercise period following termination of service; and options are non-transferable and non-hedgeable.

In December 2007, the Securities and Exchange Commission (the SEC ) issued Staff Accounting Bulletin No. 110, or SAB 110. SAB 110 was effective January 1, 2008 and expresses the views of the Staff of the SEC regarding extending the use of the simplified method, as discussed in SAB No. 107, in developing an estimate of the expected term of plain vanilla share options in accordance with SFAS 123R.

The following are the assumptions used with the Black-Scholes option pricing model in determining stock-based compensation under SFAS 123R in 2008 and 2007:

	Year Ended December 31,	
	2008	2007
Expected option term	5 to 6 years	5 to 6 years
Risk-free interest rate	3.79%	4.63%
Expected volatility	91.1%	89.2%
Dividend yield	0%	0%

For equity awards to non-employees, the Company also applies the Black-Scholes method to determine the fair value of such awards in accordance with SFAS 123R and Emerging Issues Task Force Issue 96-18, Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods, or Services. The options granted to non-employees are re-measured as they vest and the resulting value is recognized as an expense against our net loss over the period during which the services are received.

**(l) Basic and Diluted Net Loss Per Common Share:**

Basic net loss per common share excludes the effects of potentially dilutive securities and is computed by dividing net loss applicable to Common Stockholders by the weighted average number of common shares outstanding for the period. Diluted net income or loss per common share is adjusted for the effects of convertible securities, options, warrants and other potentially dilutive financial instruments only in the periods in which such effects would have been dilutive.

The following securities were not included in the computation of diluted net loss per share because to do so would have had an anti-dilutive effect for the periods presented:

	Year Ended December 31,	
	2008	2007
Stock options	3,623,333	2,877,333

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Warrants	7,441,920	6,364,334
Common Stock issuable upon conversion of Series A Convertible Preferred Stock	645	645
Common Stock issuable upon conversion of Series C Convertible Preferred Stock	6,908,672	6,336,827
Common Stock issuable upon conversion of Series D Convertible Preferred Stock	23,808,226	18,017,418

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***(m) Recent Accounting Pronouncements***

In September 2006, the FASB issued Statement of Financial Accounting Standards No. 157, Fair Value Measurements (SFAS 157), which defines fair value, establishes guidelines for measuring fair value and expands disclosures regarding fair value measurements. SFAS 157 does not require any new fair value measurements but rather eliminates inconsistencies in guidance found in various prior accounting pronouncements. SFAS 157 was effective for fiscal years beginning after November 15, 2007, and interim periods within those fiscal years. The provisions of SFAS 157 for financial assets and liabilities were adopted by the Company on January 1, 2008 and had no material impact on its consolidated financial position, results of operations or cash flows.

In February 2008, the FASB issued FASB Staff Position No. FAS 157-2, Partial Deferral of the Effective Date of Statement 157 (FSP 157-2). FSP 157-2 delays the effective date of SFAS 157 for all nonfinancial assets and nonfinancial liabilities, except those that are recognized or disclosed at fair value in the financial statements on a recurring basis (at least annually) to fiscal years beginning after November 15, 2008. The Company is currently evaluating the impact of SFAS 157 on nonfinancial assets and nonfinancial liabilities, but does not expect the adoption to have a material impact on its consolidated financial position, results of operations or cash flows.

Effective January 1, 2008, the Company adopted SFAS No. 159, The Fair Value Option for Financial Assets and Financial Liabilities (SFAS 159), including an amendment to FASB No. 115. SFAS 159 provides entities with the irrevocable option to measure eligible financial assets, financial liabilities and firm commitments at fair value, on an instrument-by-instrument basis, that are otherwise not permitted to be accounted for at fair value under other accounting standards. The adoption of SFAS 159 did not have a material impact on the Company's consolidated financial position, results of operations or cash flows as the Company did not elect this fair value option on any financial assets or liabilities.

Effective January 1, 2008, the Company adopted EITF Issue No. 07-1, Accounting for Collaborative Arrangements (EITF 07-1). EITF 07-1 defines collaborative arrangements and establishes reporting requirements for transactions between participants in a collaborative arrangement and between participants in the arrangement and third parties. EITF 07-1 also establishes the appropriate income statement presentation and classification for joint operating activities and payments between participants, as well as the sufficiency of the disclosures related to these arrangements. The adoption of EITF 07-1 did not have a material impact on the Company's consolidated financial position, results of operations or cash flows.

Effective January 1, 2008, the Company adopted EITF Issue No. 07-3, Accounting for Nonrefundable Advance Payments for Goods or Services Received to Be Used in Future Research and Development Activities (EITF 07-3). EITF 07-3 requires that nonrefundable advance payments for goods or services that will be used or rendered for future research and development activities be deferred and amortized over the period that the goods are delivered or the related services are performed, subject to an assessment of recoverability. The adoption of EITF 07-03 did not have a material impact on the Company's consolidated financial position, results of operations or cash flows.

In March 2008, the FASB issued Statement of Financial Accounting Standards No. 161, Disclosures about Derivative Instruments and Hedging Activities an amendment of FASB Statement No. 133 (SFAS 161). SFAS 161 requires entities that utilize derivative instruments



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to provide qualitative disclosures about their objectives and strategies for using such instruments, as well as any details of credit-risk-related contingent features contained within derivatives. SFAS 161 also requires entities to disclose additional information about the amounts and location of derivatives located within the financial statements, how the provisions of SFAS 133 have been applied, and the impact that hedges have on an entity's financial position, financial performance, and cash flows. SFAS 161 is effective for fiscal years and interim periods beginning after November 15, 2008, with early application encouraged. The Company is currently evaluating the impact of SFAS 161, but does not expect the adoption of SFAS 161 to have a material impact on its consolidated financial position, results of operations or cash flows.

In June 2008, the FASB ratified EITF Issue No. 07-05, *Determining Whether an Instrument (or Embedded Feature) Is Indexed to an Entity's Own Stock*. EITF Issue No. 07-05 clarifies the determination of whether an instrument (or an embedded feature) is indexed to an entity's own stock, which would qualify as a scope exception under SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*. EITF Issue No. 07-05 is effective for financial statements issued for fiscal years beginning after December 15, 2008. Early adoption for an existing instrument is not permitted. The Company is currently assessing the potential impact, if any, the adoption of EITF Issue No. 07-05 may have on its consolidated financial position, results of operations and cash flows.

**(3) Related Party Transactions:**

The Company is party to an Amended and Restated Consulting Agreement, dated April 25, 2005, with Dr. Michael G. Kaplitt (Michael Kaplitt), one of the Company's scientific co-founders and the son of Dr. Martin J. Kaplitt (Martin Kaplitt), the Company's Chairman of the Board. Pursuant to the terms of this agreement, Michael Kaplitt provides advice and consulting services on an exclusive basis in scientific research on human gene transfer in the nervous system and serves as a member of the Company's Scientific Advisory Board (the SAB). Michael Kaplitt was paid an annual retainer of \$100 in equal quarterly installment payments from October 2005 through September 2006. Effective October 1, 2006, Michael Kaplitt's annual retainer was increased to \$175 payable in equal quarterly installment payments, which installment payments commenced in January 2007. The Company paid Michael Kaplitt approximately \$175 in retainer fees in each of 2007 and 2008 respectively, thereunder. Under this agreement, the Company granted Michael Kaplitt non-qualified stock options to purchase 160,000 shares of Common Stock at an exercise price of \$2.05 per share on April 25, 2005. Michael Kaplitt is also the neurosurgeon who performed the surgical procedures on the twelve patients required by the protocol for the Company's sponsored Phase 1 clinical trial for the treatment of Parkinson's disease, and is assisting the Company in its Phase 2 clinical trial for the treatment of Parkinson's disease and trials for other therapies.

In accordance with The Rockefeller University's (Rockefeller) Intellectual Property Policy, an aggregate of one-third of all income that it receives from licensing transactions is paid to the inventors. Michael Kaplitt has advised the Company that he received less than \$2 in each of 2008 and 2007 from Rockefeller as a result of payments made by the Company to Rockefeller under a non-exclusive license agreement. (See Note 10). In December 2002, the Company issued to Rockefeller 368,761 shares of Common Stock in exchange for the cancellation of certain fees under its exclusive patent license agreement with the Company. Rockefeller sold these shares in 2007, and Michael Kaplitt received approximately \$75 from the proceeds of the





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sale. Michael Kaplitt estimates that he will be entitled to receive approximately one-third of the proceeds of future royalties or other amounts that may become payable by the Company to Rockefeller under the Company's license agreements with Rockefeller and the Rockefeller-Yale Agreement (as defined below). (See Note 10).

Dr. Matthew During, a founder of the Company and a member of its SAB, has advised the Company that in each of 2007 and 2008 he received approximately \$17 from Thomas Jefferson University (TJU) as a result of payments made by the Company to TJU under two exclusive license agreements. The amounts received by Dr. During represent approximately 18% of the total payments made by the Company to TJU in each of 2007 and 2008. Dr. During will also have a similar interest in future royalties or other amounts that may become payable under the agreement with TJU.

Dr. During has also advised the Company that in each of 2007 and 2008, he received less than \$2 from Yale University (Yale) as a result of payments made by the Company to Yale under a non-exclusive license agreement. The amounts received by Dr. During represent approximately 25% of the total payments made by the Company to Yale in each of 2007 and 2008. Dr. During will also have a similar interest in future royalties or other amounts that may become payable under the agreement with Yale.

Dr. During and the Company entered into a consulting agreement in October 1999 which was subsequently amended. The consulting agreement provides for payments to Dr. During of \$175 per year through September 2009. (See Note 10).

In August 2004, the Company subleased office space at One Bridge Plaza, Fort Lee, New Jersey from Palisade Capital Securities, LLC (PCS), an affiliated company, for use as its corporate offices for a base annual rent of approximately \$36 or \$3 per month, and such lease expires on June 30, 2009.

Effective July 17, 2006, Dr. Michael Sorell (Dr. Sorell) resigned as the Company's President and Chief Executive Officer. In connection with such resignation, the Company and Dr. Sorell entered into a Separation Agreement. Pursuant to this agreement, the Company paid Dr. Sorell severance of \$185 payable in equal semi-monthly installments through September 30, 2007. The agreement also provided for the immediate vesting of Dr. Sorell's stock options. Such options, to the extent not exercised, terminated on December 31, 2007.

Effective February 23, 2007, the Company entered into a consulting agreement with Martin Kaplitt. Under the terms of this agreement, Martin Kaplitt provided medical and scientific consulting and advisory services to the Company for a one-year period, and received compensation at an annual rate of \$85. Martin Kaplitt's consulting agreement was extended for an additional one-year term, effective January 1, 2008, at an annual rate of \$110, and further extended for a one-year term, effective January 1, 2009, at an annual rate of \$125. Effective February 23, 2007, Martin Kaplitt no longer served as the Executive Chairman of the Company, but continues to serve as Chairman of the Company's Board of Directors.

On November 19, 2007, the Company issued and sold 142,857 shares of Series D Stock at a price of \$35.00 per share, or a total of approximately \$5,000 to General Electric Pension Trust (GEPT), as part of a private placement transaction. As part of this transaction, GEPT also exchanged 230,184 shares of the Company's Series C Convertible Preferred Stock, par value \$0.10 per share (the Series C Stock), representing all of such shares of Series C Stock then

owned by GEPT, for (i) 93,940 newly issued shares of Series C Stock and (ii) 163,470 shares

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of Series D Stock (See Note 9). At the time of the transaction, GEPT was a beneficial owner of more than five percent of the Company's voting securities.

On April 28, 2008, the Company issued and sold 142,857 shares of Series D Stock at a price of \$35.00 per share, or a total of approximately \$5,000 to Corriente Master Fund, L.P. (Corriente), as part of a private placement transaction (See Note 9). At the time of the transaction, Corriente was a beneficial owner of more than five percent of the Company's voting securities.

**(4) Notes Receivable**

In April 2001, two consultants borrowed an aggregate of \$500 from the Company in exchange for two full recourse promissory notes, accruing interest and were due on April 25, 2006 (the Notes). In December 2003, the Company established a full valuation allowance for the remaining principal amount of the Notes totaling \$473, after both consultants were delinquent in their payments. By December 2004, the Company entered into settlement agreements with both consultants which provide for payments totaling \$153 to be made through July 2009. Through December 31, 2007, the Company recovered a total of \$133 under these settlement agreements and wrote off the remaining \$20 from its balance sheet in 2007. The Company recorded all recoveries received through December 31, 2007 to other income in its consolidated statement of operations.

**(5) Income Taxes:**

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company's deferred tax assets as of December 31 are as follows:

	<b>December 31,</b>	
	<b>2008</b>	<b>2007</b>
Net deferred income tax assets:		
Net operating losses	\$12,634	\$10,525
Research & development credit	1,445	1,152
Depreciable assets	50	56
Equity based compensation	1,241	1,027
Total net deferred income tax assets	15,370	12,760
Valuation allowance	(15,370)	(12,760)
Total net deferred income tax assets	\$-	\$-

At December 31, 2008, the Company has net operating loss carryforwards ( NOLs ) for both federal and state income tax purposes of approximately \$31,633 which, if not used, expire through 2028. The Company has a deferred tax asset from research and development credits of approximately \$1,445 and \$1,152 at December 31, 2008 and 2007, respectively, which, if not used, will also expire through 2028. The utilization of these NOLs is subject to limitations based on past and future changes in ownership of the Company pursuant to Internal Revenue Code Section 382. The Company has determined that an ownership change had occurred as of November 19, 2007. The Company does not believe that the changes in ownership will restrict its ability to use its losses and credits within the carryforward period. The Company records a

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valuation allowance against deferred tax assets to the extent that it is more likely than not that some portion, or all of, the deferred tax assets will not be realized. Due to the significant doubt related to the Company's ability to utilize its deferred tax assets, a valuation allowance for the full amounts of the deferred tax assets of \$15,370 and \$12,760 have been established at December 31, 2008 and 2007, respectively

As a result of the increases in the valuation allowance of \$2,610, \$3,895 and \$15,370 during the years ended December 31, 2008 and 2007 and for the period from February 12, 1999 (inception) to December 31, 2008, respectively, there are no income tax benefits reflected in the accompanying consolidated statements of operations to offset pre tax losses.

The provisions of FIN 48 were adopted by the Company on January 1, 2007 and had no effect on the Company's financial position, cash flows or results of operations upon adoption, as the Company did not have any unrecognized tax benefits. The Company also evaluated its tax positions as of December 31, 2008 and 2007 and reached the same conclusion. The Company does not currently expect any significant changes to unrecognized tax benefits during the fiscal year ended December 31, 2009. The Company's practice is to recognize interest and/or penalties related to income tax matters in income tax expense. As of December 31, 2008 and 2007, the Company had no accrued interest or penalties.

In certain cases, the Company's uncertain tax positions are related to tax years that remain subject to examination by the relevant tax authorities. The Company files U.S. and state income tax returns in jurisdictions with varying statutes of limitations. The 2005 through 2008 tax years generally remain subject to examination by federal and most state tax authorities.

**(6) Agreements with Dr. Michael Sorell**

Effective September 21, 2004, the Board entered into an employment agreement with Dr. Sorell to serve as the President and Chief Executive Officer of the Company for an initial term of employment of 18 months, which was automatically extended for an additional 18 months on March 21, 2006. Dr. Sorell received an initial annual base salary of \$150, which was increased to \$182 effective March 15, 2005 as a result of achieving specified performance objectives of the Company. Upon achieving further performance objectives, Dr. Sorell's salary was increased to \$200 effective April 27, 2005. In addition to cash compensation, Dr. Sorell's employment agreement also provided for the grant of options.

Effective July 17, 2006, Dr. Sorell resigned as the President and Chief Executive Officer of the Company. In connection with such resignation, the Company and Dr. Sorell entered into a Separation Agreement. This agreement provided for such resignation effective July 17, 2006. Dr. Sorell continued as a director of the Company, without further compensation, through May 2007.

The Company paid Dr. Sorell severance of \$185, in equal semi-monthly installments through September 30, 2007. The Company recognized this amount as compensation expense in July 2006.

In connection with the Separation Agreement, the Company modified the vesting terms for options representing 149,397 shares of common stock to allow for immediate vesting. The Company also modified the expiration terms for

options representing 638,418 shares of common stock to allow for an extended period to exercise all vested stock options. Such options, to the extent not exercised, terminated on December 31, 2007. The Company

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recognized a non-cash compensation charge of \$232 in 2006 as a result of the accelerated vesting of and the extension of the exercise period for Dr. Sorell's stock options.

**(7) Stock Options and Warrants:***2000 Stock Option Plan*

During 2000, the Company approved a stock option plan (the Plan) which provides for the granting of stock options and restricted stock to employees, independent contractors, consultants, directors and other individuals. A maximum of 800,000 shares of Common Stock were originally approved for issuance under the Plan by the Board. The Plan was amended three times by the Board and the Company's stockholders to increase the number of shares available for issuance to 6,000,000 shares. As of December 31, 2008, the Company had 1,448,852 shares available for issuance under the plan.

On November 9, 2005, the Board decided that all non-vested options held by any of the Company's consultants would be accelerated to vest as of December 31, 2005. There were 220,500 of non-vested options which vested as of December 31, 2005. No other terms or conditions of the options held by the consultants were modified. The acceleration of these options was approved to eliminate unnecessary variation in the statement of operations and the expense associated with the accounting for such options to the extent that they remained unvested. The fair value of these options is being amortized to expense over the term of the respective consulting agreements. The amount charged to operations for the years ended December 31, 2008 and 2007 were \$44 and \$63, respectively.

*Option Activity*

The following table summarizes the Company's option activity for the years ended December 31, 2008 and 2007:

	Number of Shares	Weighted Average Exercise Price
January 1, 2007	3,015,829	\$ 1.50
Granted	718,333	1.15
Exercised	(787,815)	0.75
Forfeited/Cancelled	(69,014)	1.56
December 31, 2007	2,877,333	1.61
Granted	906,000	0.62
Forfeited/Cancelled	(160,000)	1.30
December 31, 2008	3,623,333	1.38

Employee stock options are granted at a price equal to the fair market value of the Company's stock on the date of the grant. The weighted average grant-date fair value of options granted during 2008 and 2007 was \$0.46 and \$0.86, respectively and were estimated using the Black Scholes option valuation model. There were no options exercised in 2008. The total intrinsic value of options exercised during 2007 was \$393. The total intrinsic value of options outstanding and options exercisable at December 31, 2008 and 2007 was \$0 because all outstanding options were out of the money as of December 31, 2008 and 2007.



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As of December 31, 2008, there was approximately \$173 of total unrecognized compensation expense related to non-vested share-based compensation arrangements, which is expected to be recognized over a weighted average period of 1 year.

As of December 31, 2008, there were 2,603,212 outstanding stock options that had vested with a weighted average exercise price of \$1.59 and a weighted average remaining contractual term of approximately 6 years.

***Warrants***

On April 28, 2008, in connection with the sale of the Series D Stock, the Company issued warrants to purchase approximately 1,077,586 shares of Common Stock at an exercise price of \$1.39 per share that expire on April 28, 2015 (See Note 9). If such warrants are not exercised by April 28, 2015 they will terminate. The Company initially computed the fair value of the warrants, or \$633, using the Black-Scholes option pricing model and then used the relative fair value method to allocate the proceeds from the offering to the warrants and the Series D Stock. As a result of that allocation, the value of the common shares issuable upon the conversion of the Series D Stock as of the date of issuance (the amount for which the shares could have been sold) exceeded the proceeds from the offering allocable to the Series D Stock by \$562. This amount represented the value of beneficial conversion rights which was immediately accreted. The related charge is reflected in the accompanying consolidated statements of operations as an increase in the net loss for the purposes of determining the net loss applicable to common stock in 2008. The warrants are exercisable at any time within their terms. No such warrants were exercised in the year ended December 31, 2008.

On November 19, 2007, in connection with the sale of the Series D Stock, the Company issued warrants to purchase approximately 3,232,758 shares of Common Stock at an exercise price of \$1.39 per share that expire on November 19, 2014 (See Note 9). If such warrants are not exercised by November 19, 2014 they will terminate. The Company initially computed the fair value of the warrants, or \$2,482, using the Black-Scholes option pricing model and then used the relative fair value method to allocate the proceeds from the offering to the warrants and the Series D Stock. As a result of that allocation, the value of the common shares issuable upon the conversion of the Series D Stock as of the date of issuance (the amount for which the shares could have been sold) exceeded the proceeds from the offering allocable to the Series D Stock by \$2,130. This amount represented the value of beneficial conversion rights which was immediately accreted. The related charge is reflected in the accompanying consolidated statements of operations as an increase in the net loss for the purposes of determining the net loss applicable to common stock in 2007. The warrants are exercisable at any time within their terms. No such warrants were exercised in the years ended December 31, 2008 and 2007.

On May 10, 2006, in connection with the sale of the Series C Stock, the Company issued warrants (the Series C Warrants) to purchase approximately 2,224,718 shares of Common Stock at an exercise price of \$2.05 per share that expire on May 10, 2013 (See Note 9). The Company initially computed the fair value of the warrants, or \$3,136, using the Black-Scholes option pricing model and then used the relative fair value method to allocate the proceeds from the offering to the warrants and the Series C Stock. As a result of that allocation, the value of the common shares issuable upon the conversion of the Series C Stock as of the date of issuance (the amount for which the shares could have been sold) exceeded the proceeds from the offering allocable to the Series C Stock by \$2,621. This amount represented the value of beneficial conversion rights which was immediately accreted. The warrants are exercisable anytime within



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their terms. No such warrants were exercised in the years ended December 31, 2008 and 2007. As a result of the sales of the Series D Stock, the exercise price of the Series C Warrants was adjusted to \$1.76 per share.

In connection with the sale of shares of Common Stock to investors led by Merlin Biomed Group, the Company, during the period from February 4, 2005 to April 4, 2005, issued five-year warrants to purchase a total of 618,470 shares of Common Stock at an exercise price of \$1.625 per share. Beginning in August 2007, if the share price of Common Stock exceeds \$3.25 per share for any ten consecutive trading day period and certain other conditions are met, the Company may call any or all of the unexercised warrants by purchasing the warrants at a price of \$0.01 each. The Common Stock has not exceeded \$3.25, and therefore the Company has not been entitled to exercise its call right. No such warrants were exercised in the fiscal years ended December 31, 2008 and 2007.

In connection with the sale of shares of Common Stock to Medtronic International, Ltd. (Medtronic International) (See Note 9) the Company, on April 27, 2005, issued five-year warrants to purchase a total of 285,388 shares of Common Stock at an exercise price of \$2.19 per share. If the share price of Common Stock exceeds \$4.38 per share for any ten consecutive trading day period and certain other conditions are met, the Company, beginning in August 2007, may call any or all of the unexercised warrants by purchasing the warrants at a price of \$0.01 each. No such warrants were exercised in the fiscal years ended December 31, 2008 and 2007.

The following summarizes warrant activity for the years ended December 31, 2008 and 2007:

	Warrants	Weighted Average Exercise Price
January 1, 2007	3,131,576	\$1.83
Granted	3,232,758	1.39
January 1, 2008	6,364,334	1.61
Granted	1,077,586	1.39
December 31, 2008	7,441,920	1.58

The weighted-average remaining contractual life of warrants outstanding was 4.9 and 5.4 years at December 31, 2008 and 2007, respectively. The exercise prices for the warrants outstanding at December 31, 2008 ranged from \$1.39 to \$25.00.

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**(8) Accounts Payable and Accrued Expenses**

Accounts payable and accrued expenses consist of the following:

	<b>December 31, 2008</b>	<b>December 31, 2007</b>
Accounts payable	\$ 273	\$ 487
Professional fees	269	265
Clinical trial fees	169	174
Research fees	90	98
Compensation	-	208
Other	49	33
	<b>\$ 850</b>	<b>\$ 1,265</b>

**(9) Private Placements***Series D Convertible Preferred Stock*

On April 28, 2008, the Company issued and sold 142,857 shares of Series D Stock, at a price of \$35.00 per share, or a total of \$5,000, to Corriente in a private placement transaction, resulting in net proceeds after expenses of approximately \$4,932. Each share of Series D Stock is currently convertible into approximately 30.17 shares of Common Stock. The Series D Stock is not redeemable by the Company. In connection with the sale of the Series D Stock on April 28, 2008, the Company issued warrants to purchase 1,077,586 shares of the Common Stock at an exercise price of \$1.39 per share that expire on April 28, 2015 (See Note 7).

On April 28, 2008, the Company also entered into an amendment to the Registration Rights Agreement (the Registration Rights Agreement), dated as of November 19, 2007, by and among the Company, Corriente, GEPT (collectively with Corriente, the Series D Investors), and the holders (the Series C Investors and collectively with the Series D Investors, the Investors) of the Series C Stock, which provides an additional right to demand a registration (the Series D Demand), which may be requested by holders of the Series D Stock. All of the Investors have a right to participate in the Series D Demand. Pursuant to the amendment of the Registration Rights Agreement, the Company is required to pay a cash amount, as liquidated damages, to those Investors participating in the Series D Demand if a registration statement filed pursuant to such Series D Demand is not declared effective within 150 days of the notice containing the Series D Demand. The cash amount shall equal 1% of the total amount that such participating Investors invested in the Company, and is payable until such registration statement is declared effective up to an aggregate amount of \$1,000. This liquidated damages provision does not result in the Company recording a charge at this time.

The Company recorded a charge in the second quarter of 2008 of approximately \$562 for the accretion of beneficial conversion rights related to the issuance of the Series D Stock and warrants on April 28, 2008. The related charge is reflected in the statements of operations for the year ended December 31, 2008 as an increase in the net loss for the purposes of determining the net loss applicable to common stock.

Additionally, as a result of this financing, in accordance with the contingent anti-dilution terms of the Series C Stock, the Series C Stock's conversion rate was adjusted from 21.4724 to 21.875. This anti-dilution adjustment resulted in a contingent beneficial conversion charge of

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approximately \$212, which was used to calculate net loss applicable to common stock for the year ended December 31, 2008.

On November 19, 2007 the Company issued and sold 428,571 shares of Series D Stock, at a price of \$35.00 per share, or a total of \$15,000, to the Series D Investors in a private placement transaction, resulting in net proceeds after expenses of approximately \$14,770. Each share of Series D Stock is currently convertible into 30.17 shares of Common Stock per share. The Series D Stock is not redeemable by the Company.

The Company also entered into the Registration Rights Agreement, which provides, collectively to the Series D Investors and the Series C Investors, certain registration rights for the shares of Common Stock underlying the securities of the Company owned by them.

As part of this transaction, each share of Series C Stock, held by a Series C Investor who purchased at least the same dollar amount of Series D Stock as its initial purchase of Series C Stock, was automatically converted, effective as of the Closing Date, into 0.710172 shares of Series D Stock and 0.408109 additional shares of Series C Stock. As a result, an aggregate of 230,184 shares of Series C Stock was converted into 163,470 shares of Series D Stock and 93,940 shares of newly issued Series C Stock. Because the Company redeemed certain investors' convertible preferred stock for other securities, the Company, in accordance with EITF D-42 "The Effect on the Calculation of Earnings per Share for the Redemption or Induced Conversion of Preferred Stock," calculated the excess of (1) the fair value of all securities and other consideration transferred to the participating Series C Investors over (2) the fair value of securities issuable pursuant to the original Series C Stock conversion terms. This excess, or \$2,604, was used to calculate net loss applicable to common stock for the year ended December 31, 2007.

Additionally, the Company issued 192,017 shares of Common Stock to the Series C Investors that did not participate in the Series D Stock financing, in exchange for their consent to the issuance of the Series D Stock and to certain amendments to the Series C Stock Subscription Agreement and the Series C Certificate of Designation. The fair value of such issuance, \$192, was used to calculate net loss applicable to common stock for the year ended December 31, 2007.

Upon a liquidation event (such as a liquidation, merger or sale of substantially all of the Company's assets), the holders of the Series D Stock, on a pari passu basis with the holders of the Company's Series A Preferred Stock, will have a liquidation preference prior and in preference to the holders of the Series C Stock and Common Stock or any other class or series of capital stock ranking junior to the Series D Stock, and will be entitled to receive a per share amount equal to the greater of: (i) \$35 plus all accrued and unpaid dividends thereon or (ii) the amount payable upon conversion of the Series D Stock into shares of Common Stock.

The Series D Stock accrues dividends at a rate of 7% per annum, payable in semi-annual installments, which accrue, cumulatively, until paid. The Company accrued dividends of Series D Stock with a fair value of \$1,717 and \$179 as of December 31, 2008 and 2007, respectively. The Company disclosed this aggregate amount of arrearages in cumulative dividends on the face of the statement of operations below the net loss line, and such amount was used to calculate net loss applicable to common stock and common stock per share.

The Series D Investors shall vote together with all other classes and series of capital stock of the Company as a single class on all actions to be taken by the Company's stockholders,

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except that, as long as the Series D Stock comprises at least 5% of the Company's outstanding capital stock, the approval of the holders in interest of 70% of the Series D Stock is required to (i) create any new class of capital stock that is senior to, or on parity with, the Series D Stock, (ii) amend the Company's Certificate of Incorporation, including the Series D Certificate, in any manner that adversely affects the Series D Stock and (iii) purchase or redeem any of the Company's capital stock or pay dividends thereon. Each share of Series D Stock will be entitled to a number of votes per share equal to the number of shares of Common Stock underlying such share of Series D Stock.

The Series D Stock's conversion rate will be adjusted if the Company issues Common Stock (or convertible securities) at a price per share below \$1.16. There is no termination date for this anti-dilution protection. The Series D Stock is also subject to customary adjustment for stock splits and reverse splits, and corporate transactions such as mergers and reorganizations.

In connection with the sale of the Series D Stock, the Company also issued warrants to purchase approximately 3,232,758 shares of Common Stock at an exercise price of \$1.39 per share that expire on November 19, 2014 (See Note 7).

*Series C Convertible Preferred Stock*

On May 10, 2006, the Company issued and sold 342,857 shares of Series C Stock, at a price of \$35.00 per share, or a total of approximately \$12,000, to GEPT, DaimlerChrysler Corporation Master Retirement Trust and certain funds managed by ProMed Management, LLC in a private placement transaction, resulting in net proceeds after expenses of approximately \$11,612. The shares of Series C Stock, including all dividends paid to date, are currently convertible into approximately 21.4724 shares of Common Stock per share. The Series C Stock is not redeemable by the Company.

Upon a liquidation event (such as a liquidation, a merger or a sale of substantially all of the Company's assets), the holders of Series C Stock will have a liquidation preference prior and in preference to the holders of Common Stock or any other class or series of capital stock ranking junior to the Series C Stock, and will be entitled to receive a per share amount equal to the greater of: (i) \$35 plus unpaid dividends or (ii) the amount payable upon conversion to Common Stock.

Through November 19, 2007, the Series C Stock accrued paid-in-kind cumulative dividends at a rate of 9% per annum, payable in quarterly installments in shares of Series C Stock (PIK Dividends). Effective November 19, 2007, certain terms of the Series C Stock were amended as part of the issuance of Series D Stock, including the payment of a 9% semi-annual cash dividend in lieu of the PIK Dividends, and the inclusion of a provision that allows the Company to pay accrued and unpaid dividends in either cash or shares of Common Stock upon conversion of the Series C Stock. As of December 31, 2008, the Company paid dividends by issuing approximately 90,858 shares of Series C Stock with a fair value of \$1,811. The Company accrued cash dividends of Series C Stock with a fair value of \$935 and \$113 as of December 31, 2008 and 2007, respectively. The Company disclosed this aggregate amount of arrearages in cumulative dividends on the face of the statement of operations below the net loss line, and such amount was used to calculate net loss applicable to common stock and common stock per share.



Each share of Series C Stock will be entitled to a number of votes per share equal to the number of shares of underlying Common Stock. As long as the Series C Stock comprises at least 5% of the Company's outstanding securities, the Company may not create any new class of stock

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that is pari passu with or senior to the Series C Stock and junior to the Series D Stock without the consent of the holders of at least 70% of the Series C Stock.

As a result of the issuance of Series D Stock, in accordance with the contingent anti-dilution terms of the original Series C Stock's Certificate of Designation, the Series C Stock's conversion rate was adjusted from 19.6629 to 21.4724 shares of Common Stock per share. This anti-dilution adjustment resulted in a contingent beneficial conversion charge of \$627, which was used to calculate net loss applicable to common stock for the year ended December 31, 2007.

The Series C Preferred Stock's conversion rate will be further adjusted if the Company issues Common Stock (or convertible securities) at a price per share that is less than \$1.63. There is no termination date for this anti-dilution protection. The Series C Stock is also subject to customary adjustment for stock splits and reverse splits, and corporate transactions such as mergers and reorganizations.

In connection with the sale of the Series C Stock, the Company also issued warrants to purchase approximately 2,224,719 shares of Common Stock at an exercise price of \$2.05 per share that expire on May 10, 2013 (See Note 7).

In accordance with the contingent anti-dilution terms of the Series C Warrants, the exercise price of the warrants originally issued to the Series C Investors was adjusted from \$2.05 to \$1.81 per share in 2007 and from \$1.81 to \$1.76 per share in 2008.

The holders of both the Series C Stock and the Series D Stock, among other things, have certain demand and piggyback registration rights with respect to the Common Stock underlying the Series C Stock, the Series D Stock and warrants issued to the Series C Investors and the Series D Investors.

*Medtronic's Stock*

On April 27, 2005, Medtronic International, in conjunction with a development and manufacturing agreement between the Company and Medtronic, Inc. (Medtronic) (the Development Agreement), increased its equity investment in the Company by \$2,000 through the purchase of 1,141,522 shares of Common Stock at a price of \$1.752 per share, plus a warrant to purchase 285,388 shares of Common Stock at an exercise price of \$2.19 per share. As a result of the transaction, the Company recognized approximately \$795 in deferred research and development cost, an amount that was expensed over the 24 month term of the agreement on a straight-line basis. The deferred research and development cost represented the market value of the Common Stock and the fair value of the warrant (which was determined using the Black-Scholes pricing model) issued by the Company on the effective date of the agreement, which totaled approximately \$2,800, less the aggregate price Medtronic paid for the Common Stock. The amounts charged to operations in 2008 and 2007 were approximately \$0 and \$132, respectively. The Company currently has the option to call the warrant, provided that at such time there is a shelf registration statement effective for at least six months covering the shares of Common Stock underlying the warrant. If the holder does not exercise the warrant once the call option requirements have been met, the Company may redeem the Warrant at a price of \$0.01 per share. (See Note 10 for a discussion of the Development Agreement.)



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**(10) Commitments and Contingencies:**

**License Agreements:**

On August 28, 2008, the Company entered into a License Agreement (the License Agreement) with Aegera Therapeutics, Inc. (Aegera), whereby Aegera granted the Company an exclusive license for the worldwide rights, excluding China, for the use of the XIAP gene (x-linked inhibitor of apoptosis protein) for therapeutic or prophylactic purposes in the treatment of Huntington's disease. Pursuant to the License Agreement, the Company paid Aegera an initial fee that was expensed as research and development expense on the effective date of the License Agreement. Additionally, the Company will pay annual license maintenance fees beginning on January 1, 2009 through the term of the agreement and will make certain milestone and royalty payments to Aegera as provided for in the License Agreement.

The Company entered into a Sublicense Agreement (the Sublicense Agreement), effective as of August 4, 2006, with Diamyd Therapeutics AB (Diamyd), a company organized under the laws of Sweden. Pursuant to the Sublicense Agreement, Diamyd granted to the Company a non-exclusive worldwide license to certain patent rights and technical information for the use of a gene version of glutamic acid decarboxylase (GAD) 65 in connection with the gene transfer treatment of Parkinson's disease as conducted by the Company during its Phase 1 clinical trial. Diamyd is the exclusive licensee of such patent rights owned by the Regents of the University of California, Los Angeles, which has approved the Sublicense Agreement. Pursuant to the Sublicense Agreement, the Company paid Diamyd an initial fee of \$500, an amount that was expensed as research and development expense on the effective date of the Sublicense Agreement. Beginning on January 1, 2008, the Company is committed to pay an annual maintenance fee of \$75 through the term of the agreement and will make certain milestone and royalty payments to Diamyd as provided for in the Sublicense Agreement. The Sublicense Agreement is terminable at any time by the Company upon 90 days' notice. The amounts charged to operations in connection with the Diamyd Sublicense Agreement were \$75 and \$0 for the years ended December 31, 2008 and 2007, respectively.

In 2002, the Company entered into two license agreements with TJU whereby TJU granted to the Company the sole and exclusive right and license to certain patent rights and technical information. In conjunction with the agreements, the Company paid TJU an initial fee of \$100 and \$50, respectively, for each agreement. In addition, the Company is committed to pay annual maintenance fees of \$75 and \$20, respectively, through the term of the agreement, as well as benchmark payments and royalties. The maintenance fees can be applied to royalty and benchmark fees incurred in the calendar year of payment only. The licenses will continue for the lives of the patents covered in the agreements, which are currently set to expire in October 2021. The Company has the right to terminate the agreements at any time upon 90 days' written notice to TJU. The Company expenses maintenance fees when the services are rendered. The amount charged to operations in connection with the TJU agreements for each of the years ended December 31, 2008 and 2007 was \$95. (See Note 3).

In August 2002, the Company entered into a license agreement with Rockefeller and Yale (the Rockefeller-Yale Agreement) whereby the universities granted to the Company a nonexclusive license to certain patent rights and technical information. An initial fee of \$20 was paid to each of the two universities pursuant to the agreement. In addition, the Company is committed to pay an annual maintenance fee of \$5 per year to each university through the term of the agreement. Pursuant to the agreement, the Company must make payments upon reaching



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certain milestones. The Company has the right to terminate the agreement at any time upon 90 days written notice. The Company expenses maintenance fees when the services are rendered. The amount charged to operations in connection with the Rockefeller-Yale Agreement for each of the years ended December 31, 2008 and 2007 was \$10.

***Research Agreements:***

Effective May, 2006, the Company entered into a Sponsored Research Agreement ( Research Agreement ) with The Ohio State University Research Foundation ( OSURF ) which provides for research covering the development of gene transfer approaches to neurodegenerative disorders, including Parkinson's disease, epilepsy, Huntington's disease, Alzheimer's disease, as well as gene transfer approaches to pain, stroke, neurovascular diseases and other research. The Research Agreement required the Company to pay \$250 over the initial 18 month term, which expired in November 2007. The Company and OSURF have subsequently amended the Research Agreement to extend the term through November 10, 2009 at an annual rate of \$167. The amount charged to operations in connection with the sponsored research for each of the years ended December 31, 2008 and 2007 was \$167.

On April 27, 2005, the Company entered into the Development Agreement with Medtronic (See Note 9). The Development Agreement provides that the Company will use its experience in technology relating to biologics for the treatment of Parkinson's disease and temporal lobe epilepsy ( TLE ) and Medtronic will use its experience in delivery systems for biologic and pharmaceutical compositions to collaborate on a project through which Medtronic will develop a system for delivering biologics (the Product ). The Development Agreement has been in place for two years and automatically renews for successive one-year periods thereafter, unless either party gives the other at least sixty days' prior written notice of its intent not to renew. Under the Development Agreement, the Company was required to pay development costs of \$850 to Medtronic over the course of the project based upon development milestones. As of December 31, 2008, the Company had paid \$850 to Medtronic for milestones achieved. The amounts charged to operations in connection with these milestones for the years ended December 31, 2008 and 2007 were \$0 and \$213, respectively. Following regulatory approval and commercialization of the Product, Medtronic will pay certain commissions to the Company with respect to sales of the Product. Furthermore, the Company has granted to Medtronic a right of first offer to negotiate, in good faith, for the right to distribute or commercialize certain gene transfer products developed by the Company for Parkinson's disease or TLE.

On July 2, 2003, the Company entered into a Clinical Study Agreement (the Clinical Study Agreement ) with Cornell University for its Medical College ( Cornell ) to sponsor the Company's Phase 1 clinical trial for the treatment of Parkinson's disease. Under this agreement, the Company paid Cornell \$36 when each patient commenced treatment and \$23 annually for the services of a nurse to assist in the clinical study. The Company fulfilled its obligation under this portion of the agreement in May 2006 when the last patient to participate in the clinical study completed its one-year follow-up.

On September 24, 2004, the parties amended the Clinical Study Agreement to provide for research covering the development of gene transfer approaches to neurodegenerative disorders, including Parkinson's disease, Huntington's disease, Alzheimer's disease and epilepsy (the Scientific Studies ). On March 2, 2007, the parties entered into Amendment No. 2 to the Clinical Study Agreement to further revise and expand the scope of the work to be performed. This sponsored research is funded by the Company and is being conducted in Cornell's



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Laboratory of Molecular Neurosurgery under the direction of Michael Kaplitt, one of the Company's scientific co-founders. The Company is required to pay Cornell \$200 per year for the duration of the Scientific Studies. Cornell has agreed that the Company has a sixty (60) day exclusive right and option to negotiate with it an exclusive, worldwide right and license to make, have made, use and sell commercial products embodying any inventions conceived or first reduced to practice by it in the course of this work. Pursuant to the terms of the Cornell License Agreement (as defined below), the Company agreed to continue research support to Cornell under the Clinical Study Agreement during the term of the Cornell License Agreement. The amounts charged to operations in connection with the sponsored research for the years ended December 31, 2008 and 2007 were \$200 and \$172, respectively.

**Consulting and Employment Agreements:**

Effective July 17, 2006, the Company hired John E. Mordock to serve as its President and Chief Executive Officer under a letter agreement dated as of July 17, 2006. Under the letter agreement, Mr. Mordock was initially paid an annual base salary of \$200, which was increased to \$250 effective January 1, 2007.

On December 4, 2007, the Company entered into an employment agreement with Mr. Mordock, which superseded his letter agreement. The employment agreement provides that Mr. Mordock shall be employed by the Company for a period of two years, shall initially receive an annual base salary of at least \$250 and shall be eligible to receive an annual bonus in the discretion of the Board. Effective January 1, 2008, his annual base salary was set at \$275. During the period of his employment, Mr. Mordock will be reimbursed for temporary housing and automobile expenses related to his employment. If Mr. Mordock's employment is terminated by the Company without Cause or by Mr. Mordock for Good Reason (including a Change in Control), as those terms are defined in his employment agreement, he shall be entitled to a cash payment equal to the lesser of (i) one year of base salary or (ii) the base salary payable for the remaining term of the employment agreement. In addition, all of his options shall immediately vest and be exercisable for up to one year following the date of any such termination. As of December 31, 2008, total unrecognized compensation cost related to Mr. Mordock's stock option awards was approximately \$36.

Effective July 10, 2006, Dr. Christine V. Sapan was appointed as Executive Vice President, Chief Development Officer of the Company under a letter agreement dated June 23, 2006. Dr. Sapan's base annual salary was \$225, which was increased to \$264 effective January 1, 2008. Dr. Sapan is eligible to receive a discretionary annual bonus, with a target bonus of 40% of her annual base salary. In the event of her relocation, Dr. Sapan will be reimbursed by the Company for all reasonable moving expenses in connection with such relocation. During the first six months of employment, Dr. Sapan was reimbursed for temporary housing and automobile expenses. If Dr. Sapan's employment is terminated by the Company without Cause (as defined in her letter agreement), or by Dr. Sapan as a result of a demotion of her position, diminution in her duties or a Change of Control (as defined in the 2000 Stock Option Plan), she will be entitled to receive a payment of twelve months' base salary. All of her options shall immediately vest and be exercisable for up to one year following the date of any such termination. As of December 31, 2008, total unrecognized compensation cost related to Dr. Sapan's stock option awards was approximately \$30.

On January 23, 2006, the Company hired Marc L. Panoff as its Chief Financial Officer and Treasurer under a letter agreement dated as of December 15, 2005. Mr. Panoff was also





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appointed as the Company's Secretary on May 9, 2006. Under the letter agreement, Mr. Panoff initially received an annual base salary of \$165, which was increased to \$185 effective January 1, 2007.

On December 4, 2007, the Company entered into an employment agreement with Mr. Panoff, which superseded his letter agreement. The employment agreement provides that Mr. Panoff shall be employed by the Company for a period of two years, shall initially receive an annual base salary of at least \$185 and shall be eligible to receive an annual bonus in the discretion of the Board. Effective January 1, 2008, his annual base salary was set at \$203. If Mr. Panoff's employment is terminated by the Company without Cause or by Mr. Panoff for Good Reason (including a Change in Control), as those terms are defined in his employment agreement, he shall be entitled to a cash payment equal to the lesser of (i) one year of base salary or (ii) the base salary payable for the remaining term of the employment agreement. In addition, all of his options shall immediately vest and be exercisable for up to one year following the date of any such termination. As of December 31, 2008, total unrecognized compensation cost related to Mr. Panoff's stock option awards was approximately \$24.

Effective October 1, 2008, the Company extended, for a period of one year, the term of its consulting agreement with Dr. Matthew J. During, one of the Company's scientific founders. Pursuant to the consulting agreement, dated as of October 1, 1999, as amended, Dr. During provides advice and consulting services to the Company on an exclusive basis in scientific research on human gene transfer in the central nervous system. The consulting agreement also provides for Dr. During to assist the Company in its fund raising efforts and to serve as a member of the Company's SAB. Dr. During's agreement, as amended, provides for payments of \$175 per annum. The Company paid Dr. During \$175 in retainer fees in both 2008 and 2007.

The Company is party to an Amended and Restated Consulting Agreement, dated April 25, 2005, with Michael Kaplitt, one of the Company's scientific co-founders and the son of Martin Kaplitt, the Company's Chairman of the Board. Pursuant to the terms of this agreement, Michael Kaplitt will provide advice and consulting services through April 30, 2010 on an exclusive basis in scientific research on human gene transfer in the nervous system and will continue to serve as a member of the Company's SAB. Michael Kaplitt was paid an annual retainer of \$100 in equal quarterly installment payments from October 2005 through September 2006. Effective October 1, 2006, Michael Kaplitt's annual retainer was increased to \$175 payable in equal quarterly installment payments, which installment payments commenced in January 2007. The Company paid Michael Kaplitt \$175 in retainer fees in each of 2007 and 2008, thereunder. Under this agreement, the Company granted Michael Kaplitt non-qualified stock options to purchase 160,000 shares of Common Stock at an exercise price of \$2.05 per share on April 25, 2005. Michael Kaplitt is also the neurosurgeon who performed the surgical procedures on the twelve patients required by the protocol for the Company's sponsored Phase 1 clinical trial for the treatment of Parkinson's disease.

Effective February 23, 2007, the Company entered into a consulting agreement with Martin Kaplitt. Under the terms of this agreement, Martin Kaplitt provided medical and scientific consulting and advisory services to the Company for a one-year period, and received compensation at an annual rate of \$85. Martin Kaplitt's consulting agreement was extended for an additional one-year term, effective January 1, 2008, at an annual rate of \$110, and further extended for a one-year term effective January 1, 2009, at an annual rate of \$125. Effective February 23, 2007, Martin Kaplitt no longer served as the Executive Chairman of the Company, but continues to serve as Chairman of the Company's Board of Directors.



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The Company has consulting agreements with five scientists who, in addition to Michael Kaplitt and Dr. During, comprise the Company's SAB. These agreements provide that the scientists are engaged by the Company to provide advice and consulting services in scientific research on human gene transfer in the brain and central nervous system and to assist the Company in seeking financing and meeting with prospective investors.

In May 2003, the Company entered into a stock purchase agreement to sell shares of its Common Stock at a purchase price of \$0.01 per share to Dr. Paul Greengard, the Chairman of the SAB. At the time of such agreement, the fair value per share of Common Stock based on an estimate of the fair market value of common equity in Neurologix on a minority interest basis, as of April 28, 2003, was deemed to be \$0.90 per share. The reduced purchase price was provided to Dr. Greengard as an inducement for him to serve as the Chairman of the SAB. Accordingly, the fair value of the shares of approximately \$89, based on the difference between the purchase price of \$0.01 per share and the fair value per share of \$0.90, was recognized as an advisory board fee over the service period of three years. In connection therewith, on July 1, 2003, the Company entered into a consulting agreement with Dr. Greengard to serve as the Chairman of the SAB for a three year term, with automatic one year renewals, until terminated by either party pursuant to the terms of the agreement. Pursuant to the terms of the agreement, Dr. Greengard receives compensation of \$25 annually. The shares issued to the Chairman of the SAB were converted into 276,054 shares of Common Stock in connection with the Merger.

The agreements with the remaining four SAB members provide for payments aggregating \$12 per annum for three of the members and \$25 per annum for one of the members for a duration of three years from the date of each respective agreement, and are automatically renewed from year to year unless terminated for cause or upon 30 days written notice to the other party prior to an annual anniversary date. All of the consulting agreements with the SAB members are subject to confidentiality, proprietary information and invention agreements. Any discoveries and intellectual property obtained through these agreements related to the research covered under the agreements are the property of the Company.

**Operating Lease Agreements:**

In August 2004, the Company subleased office space at One Bridge Plaza, Fort Lee, New Jersey (the Sublease) from PCS, an affiliated company, for use as its corporate offices (See Note 3). The Sublease provides for a base annual rent of approximately \$36 through the expiration of the Sublease on June 30, 2009.

Effective April 13, 2007, the Company entered into a lease (the BPRA Lease) with Bridge Plaza Realty Associates, LLC (BPRA) for additional office space at One Bridge Plaza, Fort Lee, New Jersey. The BPRA Lease, which expires in March 2010, provides for a base annual rent of approximately \$21 through its term. Pursuant to an amendment to the BPRA Lease, dated February 1, 2008, the office space leased under the Sublease will be included under the BPRA Lease at a base annual rent of \$36 effective July 1, 2009 through the term of the BPRA Lease.

In April 2006, the Company entered into a Facility Use Agreement (the Facility Use Agreement) and Visiting Scientist Agreements with The Ohio State University (OSU), all of which allow three of the Company's scientists to access and use OSU's laboratory facilities and certain equipment to perform their research under the direction of Dr. Matthew During. The term of the Facility Use Agreement is four years, subject to earlier termination under certain



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circumstances. The Facility Use Agreement will automatically terminate upon the termination of the Research Agreement with OSURF. As of December 31, 2008, the Company has paid OSU an amount of \$69 representing rent for the first three years of the Facility Use Agreement. Unless sooner terminated, the Company will pay an additional \$24 over the remaining year of such agreement.

One of the Company's scientists conducts research at Cornell University in New York City under the direction of Michael Kaplitt, as provided for by the Company's research agreement with Cornell.

The Company incurred total rent expense associated with operating leases and subleases of \$80 and \$79 for the years ended December 31, 2008 and 2007, respectively.

At December 31, 2008, approximate future lease payments under the Company's operating leases and subleases are as follows:

**Year Ending December 31,**

2009	\$81
2010	17
2011 and thereafter	-
	\$98

**(11) Subsequent Event:****License Agreements:**

On January 13, 2009, the Company entered into a License Agreement (the Cornell License Agreement), with Cornell University (Cornell), whereby Cornell granted the Company an exclusive license for the worldwide use of certain patents for the development of products and methods for the treatment of psychiatric conditions. Under the terms of the Cornell License Agreement, the Company paid Cornell an initial fee, and, during the term of the Cornell License Agreement, will pay Cornell an annual license maintenance fee and certain milestone and royalty payments as provided for in the Cornell License Agreement. In addition, the Company agreed to continue research support to Cornell under the Clinical Study Agreement during the term of the Cornell License Agreement.

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

None.

**Item 9A(T). Controls and Procedures**

*Disclosure Controls and Procedures.*

The Company maintains disclosure controls and procedures as required under Rule 13a-15(e) and Rule 15d-15(e) promulgated under the Exchange Act, that are designed to ensure that information required to be disclosed in the Company's 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 the Company's management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

As of December 31, 2008, the Company's management carried out an evaluation, under the supervision and with the participation of the Company's Chief Executive Officer and Chief Financial Officer, of the effectiveness of its disclosure controls and procedures. Based on the foregoing, its Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures were effective as of December 31, 2008.

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

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting. The Company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the Company's financial statements for external purposes in accordance with generally accepted accounting principles. Internal control over financial reporting is defined in Rules 13a-15(f) and 15d-15(f) promulgated under the Exchange Act.

As of December 31, 2008, the Company's management assessed the effectiveness of the Company's internal control over financial reporting based on criteria for effective internal control over financial reporting established in *Internal Control - Integrated Framework*, issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this assessment, management has determined that the Company's internal control over financial reporting, as of December 31, 2008, is effective.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements under all potential conditions. Therefore, effective internal control over financial reporting provides only reasonable, and not absolute, assurance that a restatement of our financial statements would be prevented or detected.

*Changes in Internal Control Over Financial Reporting*

There were no changes in the Company's internal control over financial reporting that occurred during the period covered by this report that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

This annual report does not include an attestation report of the Company's registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by the Company's registered public accounting firm pursuant to temporary rules of the SEC that permit the Company to provide only

management's report in this annual report.



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**Item 9B. Other Information**

None.

**PART III**

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

Under the by-laws of the Company, the Board is divided into three classes: Class I directors, Class II directors and Class III directors. The members of one of the three classes of directors are elected each year for a three-year term or until their successors have been elected and qualified, or until the earliest of their death, resignation or retirement. The Board is currently comprised of nine directors.

There are no family relationships between any of the directors or executive officers of the Registrant nor were there any special arrangements or understandings regarding the selection of any director or executive officer.

The information required by this item will be included in the Company's definitive Proxy Statement in connection with the 2009 Annual Meeting of Stockholders and is hereby incorporated herein by reference.

**Item 11. Executive Compensation**

The information required by this item will be included in the Company's definitive Proxy Statement in connection with the 2009 Annual Meeting of Stockholders and is hereby incorporated herein by reference.

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

The information required by this item will be included in the Company's definitive Proxy Statement in connection with the 2009 Annual Meeting of Stockholders and is hereby incorporated herein by reference.

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

The information required by this item will be included in the Company's definitive Proxy Statement in connection with the 2009 Annual Meeting of Stockholders and is hereby incorporated herein by reference.

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

The information required by this item will be included in the Company's definitive Proxy Statement in connection with the 2009 Annual Meeting of Stockholders and is hereby incorporated herein by reference.

**PART IV**

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

See the Exhibit Index attached hereto for a list of the exhibits filed or incorporated by reference as a part of this report.

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**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.

Dated: March 24, 2009

**NEUROLOGIX, INC.**

/s/ John E. Mordock  
John E. Mordock, President and Chief Executive Officer

/s/ Marc L. Panoff  
Marc L. Panoff, Chief Financial Officer, Secretary and  
Treasurer

In accordance with the Exchange Act, this Report has been signed by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

Dated: March 24, 2009

/s/ Cornelius E. Golding  
Cornelius E. Golding, Director

Dated: March 24, 2009

/s/ William J. Gedale  
William J. Gedale, Director

Dated: March 24, 2009

/s/ Martin J. Kaplitt  
Martin J. Kaplitt, Director

Dated: March 24, 2009

/s/ Clark A. Johnson  
Clark A. Johnson, Director

Dated: March 24, 2009

/s/ John E. Mordock  
John E. Mordock, Director

Dated: March 24, 2009

/s/ Craig J. Nickels  
Craig J. Nickels, Director

Dated: March 24, 2009

/s/ Austin M. Long, III  
Austin M. Long, III, Director

Dated: March 24, 2009

/s/ Jeffrey B. Reich  
Jeffrey B. Reich, Director

Dated: March 24, 2009

/s/ Elliott Singer  
Elliott Singer, Director

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**EXHIBIT INDEX**

Exhibit No.	Exhibit
3.1	Restated Certificate of Incorporation of Neurologix, Inc. (filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K, dated September 13, 2004, and incorporated herein by reference).
3.2	Amended and Restated by-laws of Neurologix, Inc. (filed as Exhibit 3.4 to the Registrant's Annual Report on Form 10-K, dated April 9, 2004, and incorporated herein by reference).
4.1	Certificate of Designations, Preferences and Rights of Series C Convertible Preferred Stock of Neurologix, Inc. (filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K, dated May 11, 2006, and incorporated herein by reference).
4.2	Certificate of Designations, Preferences and Rights of Series C Convertible Preferred Stock of Neurologix, Inc. (filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K, dated November 21, 2007, and incorporated herein by reference).
4.3	Certificate of Designations, Preferences and Rights of Series D Convertible Preferred Stock of Neurologix, Inc. (filed as Exhibit 3.2 to the Registrant's Current Report on Form 8-K, dated November 21, 2007, and incorporated herein by reference).
4.4	Registration Rights Agreement, dated as of March 28, 2000, by and among Arinco Computer Systems Inc., Pangea Internet Advisors LLC and the persons party to the Securities Purchase Agreement (filed as Exhibit 10.2 to the Registrant's Current Report on Form 8-K, dated April 4, 2000, and incorporated herein by reference).
4.5	Registration Rights Agreement, dated as of February 4, 2005, by and among Neurologix, Inc, Merlin Biomed Long Term Appreciation Fund LP and Merlin Biomed Offshore Master Fund LP (filed as Exhibit 10.3 to the Registrant's Current Report on Form 8-K, dated February 10, 2005, and incorporated herein by reference).
4.6	Registration Rights Agreement, dated as of April 27, 2005, by and among Neurologix, Inc. and Medtronic International, Ltd. (filed as Exhibit 10.3 to the Registrant's Current Report on Form 8-K, dated May 2, 2005, and incorporated herein by reference).
4.7	Registration Rights Agreement, dated as of November 19, 2007, by and among Neurologix, Inc., General Electric Pension Trust, the DaimlerChrysler Corporation Master Retirement Trust, certain funds managed by ProMed Asset Management LLC and Corriente Master Fund, L.P. (filed as Exhibit 10.2 to the Registrant's Current Report on Form 8-K, dated November 21, 2007, and incorporated herein by reference).

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- 4.8 Amendment to Registration Rights Agreement, dated as of April 28, 2008, by and among the Company, General Electric Pension Trust, Chrysler LLC Master Retirement Trust, certain funds managed by ProMed Asset Management LLC and Corriente Master Fund, L.P. (filed as Exhibit 10.2 to the Registrant's Current Report on Form 8-K, dated April 29, 2008, and incorporated herein by reference).
- 10.1 Consulting Agreement, dated as of October 1, 1999, by and between Dr. Matthew During and Neurologix, Inc. (filed as Exhibit 10.29 to the Registrant's Annual Report on Form 10-K, dated April 9, 2004, and incorporated herein by reference).
- 10.2 Arinco Computer Systems Inc. 2000 Stock Option Plan, effective as of March 28, 2000 (filed as Annex E to the Registrant's Proxy Statement on Schedule 14A, dated August 11, 2000, and incorporated herein by reference).
- 10.3 Amendment One to Arinco Computer Systems Inc. 2000 Stock Option Plan, effective as of June 27, 2000 (filed as Annex E to the Registrant's Proxy Statement on Schedule 14A, dated August 11, 2000, and incorporated herein by reference).
- 10.4 Exclusive License Agreement, effective as of June 1, 2002, by and between Thomas Jefferson University and Neurologix Inc. (filed as Exhibit 10.31 to the Registrant's Annual Report on Form 10-K, dated April 9, 2004, and incorporated herein by reference).
- 10.5 Exclusive License Agreement, effective as of August 1, 2002, by and between Thomas Jefferson University and Neurologix, Inc. (filed as Exhibit 10.32 to the Registrant's Annual Report on Form 10-K, dated April 9, 2004, and incorporated herein by reference).
- 10.6 Non-Exclusive License Agreement, dated as of August 28, 2002, by and between Yale University, The Rockefeller University and Neurologix, Inc. (filed as Exhibit 10.33 to the Registrant's Annual Report on Form 10-K, dated April 9, 2004, and incorporated herein by reference).
- 10.7 License Agreement, dated as of November 1, 2002, by and between The Rockefeller University and Neurologix, Inc. (filed as Exhibit 10.34 to the Registrant's Annual Report on Form 10-K, dated April 9, 2004, and incorporated herein by reference).
- 10.8 Clinical Study Agreement, dated as of July 2, 2003, by and between Cornell University and Neurologix, Inc. (filed as Exhibit 10.35 to the Registrant's Annual Report on Form 10-K, dated April 9, 2004, and incorporated herein by reference).
- 10.9 Clinical Study Agreement, dated August 1, 2003, by and between North Shore University Hospital and Neurologix, Inc. (filed as Exhibit 10.36 to the Registrant's Annual Report on Form 10-K, dated April 9, 2004, and incorporated herein by reference).
- 10.10 Amendment, dated as of October 8, 2003, to that certain Consulting Agreement, dated October 1, 1999, by and between Dr. Matthew During and Neurologix, Inc. (filed as Exhibit 10.37 to the Registrant's Annual Report on Form 10-K, dated April 9, 2004, and incorporated herein by reference).



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- 10.11 Sub Lease, dated August 10, 2004, by and between Neurologix, Inc. and Palisade Capital Securities L.L.C. (filed as Exhibit 10.19 to the Registrant's Amendment No. 1 to the Annual Report on Form 10-KSB, dated September 28, 2005, and incorporated herein by reference).
- 10.12 Amendment No. 1 to Clinical Study Agreement, dated September 24, 2004, by and between Cornell University for its Medical College and Neurologix, Inc. (filed as Exhibit 99.1 to the Registrant's Report on Form 8-K, dated September 30, 2004, and incorporated herein by reference).
- 10.13 Stock Purchase Agreement, dated as of February 4, 2005, by and among Neurologix, Inc, Merlin Biomed Long Term Appreciation Fund LP and Merlin Biomed Offshore Master Fund LP (filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K, dated February 10, 2005, and incorporated herein by reference).
- 10.14 Form of Amendment to the Stock Purchase Agreement dated as of February 4, 2005, by and among Neurologix, Inc, Merlin Biomed Long Term Appreciation Fund LP and Merlin Biomed Offshore Master Fund LP (filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K, dated February 25, 2005, and incorporated herein by reference).
- 10.15 Amendment No. 1 to the Stock Purchase Agreement, dated as of February 9, 2005, by and between Neurologix, Inc. and Copper Spire Fund Portfolio (filed as Exhibit 10.4 to the Registrant's Current Report on Form 8-K, dated February 10, 2005, and incorporated herein by reference).
- 10.16 Form of Warrant Certificate to purchase shares of common stock of Neurologix, Inc. (filed as Exhibit 10.2 to the Registrant's Current Report on Form 8-K, dated February 10, 2005, and incorporated herein by reference).
- 10.17 Amended and Restated Consulting Agreement, dated April 25, 2005, by and between Michael G. Kaplitt and Neurologix Research, Inc. (filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K, dated April 29, 2005, and incorporated herein by reference).
- 10.18 Stock Purchase Agreement, dated as of April 27, 2005, by and among Neurologix, Inc. and Medtronic International, Ltd. (filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K, dated May 2, 2005, and incorporated herein by reference).
- 10.19 Warrant Certificate to purchase shares of common stock of Neurologix, Inc. (filed as Exhibit 10.2 to the Registrant's Current Report on Form 8-K, dated May 2, 2005, and incorporated herein by reference).
- 10.20 Development and Manufacturing Agreement, dated as of April 27, 2005, by and among Neurologix, Inc. and Medtronic, Inc. (filed as Exhibit 10.8 to the Registrant's Quarterly Report on Form 10-QSB, dated May 13, 2005, and incorporated herein by reference).
- 10.21 Neurologix, Inc. 2000 Stock Option Plan Amendment No. 2, effective as of May 9, 2006 (filed as Exhibit A to the Registrant's Proxy Statement on Schedule 14A, dated April 5, 2006, and incorporated herein by reference).



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- 10.22 Master Sponsored Research Agreement, dated as of May 10, 2006, by and between The Ohio State University Research Foundation and Neurologix, Inc. (filed as Exhibit 10.19 to the Registrant's Annual Report on Form 10-KSB, dated March 24, 2008, and incorporated herein by reference).
- 10.23 Stock and Warrant Subscription Agreement, dated as of May 10, 2006, by and between Neurologix, Inc., General Electric Pension Trust, the DaimlerChrysler Corporation Master Retirement Trust, ProMed Partners, LP, ProMed Partners II, LP, ProMed Offshore Fund Ltd., ProMed Offshore Fund II, Ltd., Paul Scharfer and David B. Musket (filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K, dated May 11, 2006, and incorporated herein by reference).
- 10.24 Form of Warrant Certificate to purchase shares of common stock of Neurologix, Inc. (filed as Exhibit 10.2 to the Registrant's Current Report on Form 8-K, dated May 11, 2006, and incorporated herein by reference).
- 10.25 Letter Agreement, dated June 23, 2006, by and between Christine V. Sapan and Neurologix, Inc. (filed as Exhibit 10.22 to the Registrant's Annual Report on Form 10-KSB, dated March 24, 2008, and incorporated herein by reference).
- 10.26 Separation Agreement, dated as of July 17, 2006, by and between Neurologix, Inc. and Michael Sorell (filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K, dated July 20, 2006, and incorporated herein by reference).
- 10.27 Sublicense Agreement, dated July 27, 2006, by and between Neurologix, Inc. and Diamyd Therapeutics AB (filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K, dated August 7, 2006, and incorporated herein by reference).
- 10.28 Consulting Agreement, dated February 23, 2007, by and between Neurologix, Inc. and Dr. Martin J. Kaplitt (filed as Exhibit 99.1 to the Registrant's Current Report on Form 8-K, dated February 26, 2007, and incorporated herein by reference).
- 10.29 Amendment No. 2 to Clinical Study Agreement, dated March 2, 2007, by and between Cornell University and Neurologix, Inc. (filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K, dated March 7, 2007, and incorporated herein by reference).
- 10.30 Amendment No. 1 to Stock Purchase Agreement, dated as of March 29, 2007, by and among Neurologix, Inc., Merlin Biomed Long Term Appreciation Fund LP, and Merlin Biomed Offshore Master Fund LP (filed as Exhibit 10.25 to the Registrant's Annual Report on Form 10-KSB, dated April 2, 2007, and incorporated herein by reference).
- 10.31 Neurologix, Inc. 2000 Stock Option Plan Amendment No. 3, effective as of May 8, 2007 (filed as Exhibit A to the Registrant's Proxy Statement on Schedule 14A, dated April 10, 2008, and incorporated herein by reference).
- 10.32 Amendment to Consulting Agreement, dated October 1, 2007, by and between Matthew During and Neurologix, Inc. (filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K, dated October 5, 2007, and incorporated herein by reference).





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- 10.33 Stock Purchase Letter Agreement, dated November 8, 2007, by and between Neurologix, Inc. and General Electric Pension Trust (filed as Exhibit 10.4 to the Registrant's Current Report on Form 8-K, dated November 21, 2007, and incorporated herein by reference).
- 10.34 Stock Purchase Letter Agreement, dated November 8, 2007, by and between Neurologix, Inc. and DaimlerChrysler Corporation Master Retirement Trust (filed as Exhibit 10.5 to the Registrant's Current Report on Form 8-K, dated November 21, 2007, and incorporated herein by reference).
- 10.35 Stock Purchase Letter Agreement, dated November 8, 2007, by and between Neurologix, Inc. and ProMed Partners LP (filed as Exhibit 10.6 to the Registrant's Current Report on Form 8-K, dated November 21, 2007, and incorporated herein by reference).
- 10.36 Stock and Warrant Subscription Agreement, dated as of November 19, 2007, by and between Neurologix, Inc., General Electric Pension Trust, Corriente Master Fund, L.P., Martin J. Kaplitt, and Palisade Private Holdings LLC (filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K, dated November 21, 2007, and incorporated herein by reference).
- 10.37 Form of Warrant Certificate to purchase shares of common stock of Neurologix, Inc. (filed as Exhibit 10.3 to the Registrant's Current Report on Form 8-K, dated November 21, 2007, and incorporated herein by reference).
- 10.38 Employment Agreement, dated as of December 4, 2007, by and between John E. Mordock and Neurologix, Inc. (filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K, dated December 4, 2007, and incorporated herein by reference).
- 10.39 Employment Agreement, dated as of December 4, 2007, by and between Marc Panoff and Neurologix, Inc. (filed as Exhibit 10.2 to the Registrant's Current Report on Form 8-K, dated December 4, 2007, and incorporated herein by reference).
- 10.40 Stock and Warrant Subscription Agreement, dated as of April 28, 2008, by and between Neurologix, Inc., Corriente Master Fund, L.P. and, solely with respect to Article V thereof, General Electric Pension Trust (filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K, dated April 29, 2008, and incorporated herein by reference).
- 10.41 Form of Warrant Certificate (filed as Exhibit 10.3 to the Registrant's Current Report on Form 8-K, dated April 29, 2008, and incorporated herein by reference).
- 10.42 Amendment to the Master Sponsored Research Agreement, dated as of May 29, 2008, between Neurologix, Inc. and The Ohio State University Research Foundation, on behalf of Ohio State University (filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K, dated June 11, 2008, and incorporated herein by reference).
- 10.43 Addendum to the Development and Manufacturing Agreement, effective as of August 1, 2008, between Neurologix, Inc. and Medtronic, Inc. (filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K, dated August 15, 2008, and incorporated herein by reference).



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- 10.44 License Agreement, dated as of August 28, 2008, between Neurologix, Inc. and Aegea Therapeutics, Inc. (filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K, dated September 4, 2008, and incorporated herein by reference).
- 10.45 Letter Agreement, dated October 3, 2008, between Neurologix, Inc. and Dr. Matthew During (filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K, dated October 7, 2008, and incorporated herein by reference).
- 10.46 Second Amendment to Master Sponsored Research Agreement, dated as of October 29, 2008, between Neurologix, Inc. and The Ohio State University Research Foundation, on behalf of Ohio State University (filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K, dated December 16, 2008, and incorporated herein by reference).
- 10.47 License Agreement, dated as of January 13, 2009, by and between Neurologix, Inc. and Cornell University (filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K, dated January 14, 2009, and incorporated herein by reference).
- 23.1 Consent of BDO Seidman LLP, Independent Registered Public Accounting Firm.\*\*
- 23.2 Consent of J.H. Cohn LLP, Former Independent Registered Public Accounting Firm.\*\*
- 31.1 Rule 13a-15(e)/15d-15(e) Certification of Principal Executive Officer.\*\*
- 31.2 Rule 13a-15(e)/15d-15(e) Certification of Chief Financial Officer/Treasurer.\*\*
- 32.1 Section 1350 Certification, Chief Executive Officer and Chief Financial Officer/Treasurer.\*\*

\*\* Filed herewith