NeuroMetrix, Inc.
Form 424B5
February 08, 2012

Filed Pursuant to Rule 424(b)(5)
Registration Nos. 333-178165 and 333-179418

Up to 10,500,000 Units, each consisting of Common Stock and Warrants

We are offering up to 10,500,000 units, each consisting of one share of common stock and one warrant. Each warrant entitles the holder to purchase one half of a share of our common stock. The shares of common stock and warrants will immediately separate and will be issued separately. The warrants are exercisable at an exercise price of $1.15 per share (115% of the aggregate offering price for a unit) for a five year term. We are not required to sell any specific dollar amount or number of units but will use our best efforts to sell all of the units being offered.

Our common stock is listed on the NASDAQ Capital Market under the symbol NURO. We do not intend to apply to list the warrants on any securities exchange. The last reported sale price of our common stock on the NASDAQ Capital Market on February 7, 2012 was $1.15 per share.

Investing in our units, common stock and warrants involves risks. See Risk Factors beginning on page 9.

	Per Unit	Total[1]
Offering price per unit	$ 1.00	$ 10,500,000
Placement agent s fees[2]	$ 0.08	$ 840,000
Offering proceeds, before expenses, to NeuroMetrix	$ 0.92	$ 9,660,000

(1) Assumes all units offered pursuant to this prospectus are sold in the offering.
(2) Includes a non-accountable expense equal to 2% of the gross proceeds of this offering.

Dawson James Securities, Inc. is the placement agent for this offering. Dawson James is not purchasing or selling any units, nor are they required to arrange for the purchase and sale of any specific number or dollar amount of units, other than to use their best efforts to arrange for the sale of units by us. We have not arranged to place the funds in an escrow, trust or similar account.

In addition to the placement agent s fees, we have agreed to pay up to $50,000 of the fees and expenses of the placement agent in connection with this offering. As additional compensation, we plan to issue the placement agent warrants to purchase a number of shares of common stock equal to 5.0% of the number of shares of common stock included in the units sold in this offering (excluding the shares of common stock that may be issued upon exercise of the warrants included in the units) at an exercise price of $1.25 per share (125% of the aggregate offering price for a unit). The placement agent s warrants will be exercisable at any time beginning one year after the effective date of the registration statement of which this prospectus forms a part, and will expire on the fifth anniversary of the effectiveness of the registration statement related to the offering. See Plan of Distribution.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation

to the contrary is a criminal offense.

We expect to deliver the securities to investors on or about February 13, 2012.

DAWSON JAMES SECURITIES, INC.

The date of this prospectus is February 8, 2012.

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You should rely only on the information contained or incorporated by reference in this prospectus and any free-writing prospectus prepared by or on behalf of us or to which we have referred you. Neither we nor the placement agent have authorized anyone to provide you with additional or different information. We are offering to sell, and are seeking offers to buy these securities only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of our securities.

Registered Trademarks and Trademark Applications: In the United States we have registered trademarks for NEUROMETRIX , NC-STAT and onCall , each registered with the United States Patent and Trademark Office. In addition, the marks ADVANCE and NC-stat DPNCHECK are the subject of either a trademark registration or application for registration in the United States. We also hold certain foreign trademark registrations for the marks NEUROMETRIX and NC-STAT. Solely for convenience, the trademarks, service marks and trade names referred to in this prospectus are without the ® and ™ symbols, but such references are not intended to indicate, in any way, that the owner thereof will not assert, to the fullest extent under applicable law, such owner s rights to these trademarks, service marks and trade names. This prospectus contains additional trade names, trademarks and service marks of other companies, which, to our knowledge, are the property of their respective owners.

We obtained industry and market data used throughout and incorporated by reference into this prospectus through our research, surveys and studies conducted by third parties and industry and general publications. We have not independently verified market and industry data from third-party sources.

On September 1, 2011 we completed a 1-for-6 reverse split of our common stock. Throughout this prospectus we have restated historical per share data, as well as data related to common stock, options and warrants to reflect the effects of this reverse split.

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PROSPECTUS SUMMARY

This summary highlights selected information contained in greater detail elsewhere in this prospectus or incorporated by reference into this prospectus. This summary may not contain all of the information that you should consider before investing in the units and the common stock and warrants included in the units. You should carefully read the entire prospectus, including Risk Factors beginning on page 9 and the financial statements and related notes and other documents incorporated by reference into this prospectus, before making an investment decision. As used in this prospectus, references to we, our, us and NeuroMetrix refer to NeuroMetrix, Inc. unless the context requires otherwise.

Our Business and Opportunity

We are an emerging diabetes company that also manages a legacy, point of care neurodiagnostics franchise to optimize its cash contribution to our diabetes initiatives. Diabetes is a worldwide epidemic. Recent studies estimate the worldwide prevalence of diabetes to be over 350 million people, of which approximately 90% are of the Type II variety. Within the United States, there are over 25 million people with diabetes and another 80 million people with pre-diabetes, which represents a constellation of conditions such as obesity and high triglyceride levels that are likely to progress to diabetes. In the United States, the annual cost of treating diabetes is over $100 billion. Although there are dangerous acute manifestations of diabetes, the primary burden of the disease is in the long term complications of chronic high blood sugar, or hyperglycemia. These complications include among other things cardiovascular disease, nerve disease and resulting pathological conditions such as foot ulcers and amputation, eye disease leading to blindness, and kidney failure.

The most common long-term complication of diabetes, which affects over 50% of the diabetic population, is nerve disease or diabetic neuropathy. There are different forms of diabetic neuropathy; the most common are diabetic peripheral neuropathy, or DPN, carpal tunnel syndrome, or CTS, and autonomic neuropathy. DPN is a systemic nerve disease that is worse in the feet and lower legs. It may lead to loss of sensation in the feet, severe pain in the feet and legs, and increases the risk of falling. DPN is the primary trigger for diabetic foot ulcers which may progress to the point where amputation is required. People with diabetes have a 15% to 25% lifetime risk of developing a foot ulcer and 15% of foot ulcers lead to amputation. Foot ulcers are among the most expensive complications of diabetes, with a typical cost of $5,000 to $50,000 per episode. CTS is caused by focal damage to the median nerve as it passes from the forearm into the hand, through the wrist. When the median nerve is compressed it can lead to symptoms in the hand including pain, numbness, and loss of strength. Autonomic neuropathy is a systemic disease of the autonomic nerves, which regulate the heart, digestion, sexual function, and other essential bodily functions. Damage to these nerves leads to a host of clinical complications that include an increased risk of sudden death, elevated risk of stroke, digestion difficulties and impotence.

Most people with diabetes receive health care attention in primary care settings where physicians have limited access to sophisticated diagnostic tools to detect diabetic neuropathy early and monitor its progress and response to treatment. As a result, they rely primarily on clinical examination of patients, which although it is an important part of the evaluation of a patient with diabetes, has limited sensitivity and specificity and can usually only detect later stage disease where treatment options and efficacy are compromised.

Early detection of DPN is particularly important because there are no treatment options once the nerves have degenerated. At the present time, the most widely used and recommended diagnostic method for DPN is the 5.07/10-g monofilament test. This test assesses the patient s ability to detect focal pressure application in the foot. The inability

to detect a monofilament indicates that the patient lacks adequate sensation to protect their feet from mechanical insults that can lead to foot ulcers; a condition known as loss of protection sensation, or LOPS. Although the monofilament is an important clinical test, it is insensitive to early DPN where interventions may slow or even halt further nerve damage. Nerve conduction studies, or NCS, are objective electrical tests of nerve function. They are widely considered the gold standard diagnostic method for DPN and can even detect mild nerve damage before it is expressed as clinical symptoms. NCS have typically been provided by specialists using expensive equipment and therefore access has been limited, particularly for common conditions such as DPN.

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Currently, there are limited treatment options for diabetic neuropathies. There are no approved disease modifying treatments for DPN, although a few pharmacological candidates are in clinical trials. Several large studies have shown that reducing hyperglycemia lowers the risk of developing DPN and decreases its severity. There is also observational data that suggests that reductions in triglyceride levels slows the progression of DPN. Several drugs, such as duloxetine, gabepentin, and pregabalin, have been approved to treat the pain associated with DPN, which is referred to as painful diabetic neuropathy. Unfortunately, these drugs, which are also anti-depressants or anti-seizure medications, have systemic effects and are therefore often associated with intolerable side effects. Like DPN, autonomic neuropathies are difficult to manage, however early identification may allow physicians to lower cardiovascular risk. Mild to moderate CTS is effectively treated with conservative measures such as splinting and local steroid injections. More advanced CTS is usually managed surgically. In either case, it is essential to intervene before extensive nerve degeneration has occurred.

Our Strategy

We believe that there are large and important unmet needs in both the diagnosis and treatment of diabetic neuropathies. As a medical device company with both unique and substantial experience in devices to measure and alter peripheral nerve function, we believe we are in the unique position to address these unmet needs through the development of novel proprietary medical devices. Therefore, we are focused on developing and marketing medical devices for the diagnosis and treatment of diabetic neuropathies. We believe that we are the only medical device company with a strategic focus on the diabetic neuropathy vertical market and our goal is to be the dominant player in this field.

Our key business strategies by which we intend to meet our objectives in diabetic neuropathy include:

Drive Adoption of NC-stat DPNCheck, Our Initial Product for Diabetic Neuropathy, in the United States. NC-stat DPNCheck was launched in September 2011. Our initial target market is endocrinologists and podiatrists in the United States. We believe that this market represents approximately 15,000 physicians who are viewed as leaders in the detection and management of DPN. We initiated sales into this market through a direct, specialty sales force that we hired, trained and deployed during the third quarter of 2011.

Over 100,000 primary care physicians provide front-line care to approximately 85% of people with diabetes in the United States. We believe this is the most attractive sector of the United States market for NC-stat DPNCheck. Due to the size of the market and the large number of potential call points, we believe that the most effective sales approach is through national and/or regional third party distributors. Our strategy is to first establish product credibility in the endocrinology/podiatry market before negotiating arrangements with distributors to address the United States primary care market.

We believe that there may be an opportunity to sell NC-stat DPNCheck for use in retail medical clinics such as those in chain drug stores and department store pharmacies. There are approximately 1,200 retail medical clinics in the United States, a number growing at a double digit rate.

We believe that corporate accounts, including managed care organizations, companies that self-insure the health care risks of their employee populations, and governmental entities represent an attractive opportunity because of their focus on prevention and on health care costs over long durations. We plan to hire internal sales resources to market NC-stat DPNCheck directly to these corporate accounts.

Commercialize NC-stat DPNCheck in Select International Markets Using a Distribution Network. We have gained some experience in international markets with our ADVANCE System, which is currently used in the United Kingdom, Netherlands and India, among other countries, and which we sell through a distribution network. While international markets are a secondary priority at present, we believe we can leverage our distribution network to either sell NC-stat DPNCheck or to help us identify more appropriate distributors.

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Expand Our Diabetic Neuropathy Products in the Near Term to Include SENSUS, a Pain Therapy Device. We are developing SENSUS, a pain therapy device which is a transcutaneous electrical nerve stimulator designed specifically for use in treating painful diabetic neuropathy. We believe that our unique expertise in peripheral nerve stimulation will expedite product development resulting in a product that is attractive to endocrinologists, podiatrists, and primary care physicians that are challenged with trying to manage pain in their patients with diabetes.

Initiate Clinical Studies to Further Validate the Clinical and Economic Benefits of Our Diabetes Products. We appointed a Chief Medical Officer in September 2011 who is responsible for developing and managing our diabetes-related clinical programs. These include studies to further validate the clinical and economic benefits of NC-stat DPNCheck testing, and various clinical and research and development activities in support of new diabetic neuropathy focused products, including SENSUS. This work should provide important support to our commercialization efforts and our efforts to obtain third party reimbursement for physicians using our products.

Obtain Coverage and Payment for NC-stat DPNCheck. While payers are not our direct customers, their coverage and reimbursement policies influence medical practice. We believe that NC-stat DPNCheck is appropriately described under the existing Category I CPT Code 95905; however, we expect only limited third-party reimbursement for health care providers using the device to detect and monitor diabetic neuropathy. We believe that the low cost of testing with NC-stat DPNCheck combined with its clinical utility will result in the development of an out-of-pocket payment model. We intend to initiate the type of clinical studies that may lead to expanded third party coverage over time.

Manage Our Legacy Neurodiagnostics Business to Optimize Cash Flow. Our neurodiagnostics business currently accounts for nearly all of our revenue. We restructured this portion of our business in January 2011 when we shifted our strategic focus toward more attractive opportunities in diabetes care. Accordingly, the legacy business is managed for cash and not growth and it is our intention to continue to carefully manage this business in order to optimize its future cash contribution.

Our Business Model

We develop and market neurodiagnostic systems which typically consist of a medical device plus single-use biosensors or electrodes. Other accessories are also offered to our customers. Our goal for these systems is to build an installed base of active customer accounts that regularly reorder consumables to meet their clinical practice needs. We successfully implemented this model when we started our business with the NC-stat System, applied it to subsequent product generations and, more recently, to the ADVANCE System. The planning for our diabetes care pipeline including NC-stat DPNCheck and products in development such as SENSUS, is based on the device plus consumables business model.

Our Products

Marketed Products

NC-stat® DPNCheck™

NC-stat DPNCheck is a fast, accurate, and quantitative nerve conduction test that may be used to evaluate systemic neuropathies such as DPN. It is designed to be used by primary care physicians, endocrinologists, podiatrists and other clinicians at the point-of-care to objectively detect, stage, and monitor DPN. The device measures nerve conduction velocity and response amplitude of the sural nerve, a nerve in the lower leg and ankle. These parameters are widely

recognized as sensitive and specific biomarkers of DPN.

ADVANCE™ NCS/EMG System

The ADVANCE NCS/EMG System, or the ADVANCE System, is a comprehensive platform for the performance of traditional nerve conduction studies and invasive electromyography procedures. Historically, the ADVANCE System has been marketed to a broad range of physician specialties including neurologists, orthopedic surgeons, primary care physicians, and endocrinologists, and utilized for a variety of different clinical indications including assessment of CTS, low back and leg pain, and DPN. It is most commonly used in the assessment of CTS. Numerous papers have been published on the use of this technology in this clinical

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application. With the Company s focus on diabetic neuropathies, we intend to target new sales of ADVANCE Systems for use by endocrinologists and primary care physicians who evaluate patients with diabetes and upper extremity symptoms suggestive of CTS.

Products in Development

SENSUS™

The SENSUS pain therapy device is a transcutaneous electrical nerve stimulator, or TENS, designed specifically for use in treating painful diabetic neuropathy, or PDN. A recent evidence based review by the American Academy of Neurology determined that TENS was a useful modality for managing this form of pain. TENS may reduce pain in patients with PDN without significant side effects and we believe that a PDN-specific TENS device that is effective, easy to use and low cost could improve management of pain in patients with PDN. We further believe that currently available TENS devices do not meet this need because they are not optimized for PDN, but are instead targeted at low back pain, sports medicine, and rehabilitation applications. Furthermore, they are difficult to administer and tend to be complicated for clinicians and patients.

ADVANCE™ CTS

We are currently exploring the market for a version of the ADVANCE device dedicated to detection of CTS in people with diabetes. The second most common form of diabetic neuropathy is focal damage to the median nerve or CTS. We are currently investigating this market opportunity by creating a diabetes CTS package consisting of the ADVANCE System and the combined median and ulnar nerve specific electrode, both of which are commercially available. If we determine that an attractive market exists for this clinical indication, then we will invest in development of an easier to use and lower cost version of the ADVANCE System dedicated specifically to detection of CTS in diabetes.

Legacy Neurodiagnostics Business

We were founded in 1996 as a science-based health care company. Our focus had been the development of innovative products for the detection, diagnosis, and monitoring of peripheral nerve and spinal cord disorders, such as those associated with carpal tunnel syndrome, lumbosacral disc disease and spinal stenosis, and diabetes. Our NC-stat System for the performance of nerve conduction studies at the point-of-care was commercially launched in 1999. The second generation NC-stat was released in 2002. In 2008 we brought to market the more sophisticated ADVANCE System for nerve conduction testing and performance of invasive needle electromyography. These systems were general purpose with broad application in evaluating and diagnosing nerve disorders. Numerous studies demonstrating the clinical accuracy and utility of these devices have been conducted and published in high quality peer-reviewed journals. Furthermore, these devices have been used in clinical trials sanctioned by the Food and Drug Administration, or FDA, for pharmacological agents and large scale epidemiological studies sponsored by the National Institute of Health, or NIH, the Center for Disease Control, or CDC, and other governmental agencies. The products have been cleared by the FDA, field tested for over a decade and highly regarded for their ease of use, accuracy and reproducibility of results.

Following launch of NC-stat in 1999, we experienced rapid revenue growth, which lead to our initial public offering in 2004. The health market, particularly the physician office segment, embraced the opportunity to perform nerve conduction tests which previously had always required referral to specialists. Point-of-care nerve testing was seen to provide a combination of improved patient care and patient convenience. The success of point-of-care nerve testing, a market which we created, was met with resistance in some sectors of the medical community, particularly by

neurologists and physical medicine and rehabilitation physicians, both of which had traditionally provided nerve testing services. As a consequence of successful lobbying by these specialists, physicians using our technology experienced increased denials of coverage by third party payers resulting in their discontinuing usage and our difficulty in accruing new customer accounts. In late 2009, the U.S. Centers for Medicare and Medicaid Services, or CMS, included in the Physician Fee Schedule a new Category 1CPT Code (95905) for nerve conduction studies performed using preconfigured electrodes such as those employed with our products. During 2010 most Medicare fiscal intermediaries assumed coverage for CPT 95905 for at least some clinical indications; however, the health care environment has been such that we

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have been unable to secure broad coverage among private payers, which is essential to the success of our products. This experience was reflected in our revenues which peaked in 2006 at $55.3 million. We have reported revenue from this business of $31.1 million in 2008, $26.1 million in 2009 and $13.9 million in 2010 and for the nine month period ended September 30, 2011 reported revenue of $8.0 million.

As we managed our general purpose neurodiagnostic business to improve reimbursement and minimize customer erosion, we increasingly became aware of the unmet medical need for improved diagnostic tools and therapies in the specific area of diabetic neuropathy. Diabetes care is one of the fastest growing sectors of health care as discussed above. We believe that our tools and therapies for addressing diabetic neuropathy represent a significant market opportunity. Consequently, in January 2011 we announced a shift to diabetes care as our primary business focus. We also restructured our neurodiagnostics business to consolidate functions and to eliminate our direct sales force. We emphasized our commitment to supporting our neurodiagnostic products and installed base of physician accounts. Our objective for our legacy neurodiagnostics business is to maintain a high standard of product support while managing the business to optimize cash flow.

Risks Affecting Us

Our business is subject to numerous risks, as discussed more fully in the section entitled Risk Factors immediately following this prospectus summary. At September 30, 2011 we had an accumulated deficit of $126.2 million and held cash and cash equivalents of $11.7 million. We believe that these resources and the cash to be generated from expected product sales will be sufficient to meet our projected operating requirements at least until the fourth quarter of 2012. We face significant challenges and uncertainties and, as a result, our available capital resources may be consumed more rapidly than expected. We require additional funding to support our operating and capital needs. However, we may not be able to secure financing in a timely manner and on favorable terms, if at all. Without additional funds, we may be forced to delay, scale back or eliminate some of our sales and marketing efforts, research and development activities, or other operations in an effort to provide sufficient funds to continue our operations.

Our Corporate Information

Our President and Chief Executive Officer, Shai N. Gozani, M.D., Ph.D. founded NeuroMetrix in June 1996. We originally were incorporated in Massachusetts in 1996, and we reincorporated in Delaware in 2001. Our common stock is listed on the NASDAQ Capital Market under the ticker symbol NURO. Our principal offices are located at 62 Fourth Avenue, Waltham, Massachusetts 02451 and our telephone number is (781) 890-9989. Our web site is *www.neurometrix.com*. We have not incorporated by reference into this prospectus the information on our website, and you should not consider it to be a part of this document. Our web site address is included in this document as an inactive textual reference only. The NeuroMetrix name and logo and the names of products and services offered by NeuroMetrix are trademarks, registered trademarks, service marks or registered service marks of NeuroMetrix.

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The Offering

Securities offered

Up to 10,500,000 units. Each unit will consist of one share of common stock and one warrant. Each warrant entitles its holder to purchase one half of a share of our common stock. The shares of common stock and warrants will immediately separate upon issuance.

Offering price

$1.00 per unit

Description of the warrants

The warrants will be exercisable at any time until the fifth anniversary of the closing date at an exercise price of $1.15 per share (115% of the aggregate offering price for a unit).

Common stock outstanding before this offering

3,904,320 shares

Common stock to be outstanding after this offering

14,404,320 shares, based on 10,500,000 shares being issued in this offering, which does not include 5,250,000 shares of common stock issuable upon exercise of the warrants included in the offering units.

Use of proceeds

We intend to use the net proceeds of this offering for general corporate purposes, including continuing our commercialization efforts for NC-stat DPNCheck and development of our product candidates. See Use of Proceeds for additional information.

Risk factors

You should read the Risk Factors section of, and all of the other information set forth in, this prospectus to consider carefully before deciding whether to invest in the units offered by this prospectus.

NASDAQ Capital Market symbol

NURO

The number of shares of our common stock that will be outstanding immediately after this offering is based on 3,904,320 shares outstanding as of December 31, 2011 and excludes the following:

1,430,480 shares of common stock issuable upon the exercise of warrants outstanding as of December 31, 2011, at a weighted average exercise price of $13.20 per share;

338,597 shares of common stock issuable upon the exercise of options outstanding as of December 31, 2011, at a weighted average exercise price of $13.47 per share;

255,330 shares of common stock available for future issuance under our 2004 Stock Option and Incentive Plan as of December 31, 2011;

70,833 shares of common stock available for future issuance under our 2009 Non-qualified Inducement Stock Plan as of December 31, 2011;

6,254 shares of common stock available for future issuance under our 2010 Employee Stock Purchase Plan as of December 31, 2011;

up to 5,250,000 shares of common stock issuable upon the exercise of the warrants included in the units to be sold in this offering; and

up to 525,000 shares of common stock issuable upon the exercise of the warrants to be issued to the placement agent in connection with this offering.

Except where we state otherwise, the information we present in this prospectus reflects a 1-for-6 reverse stock split completed on September 1, 2011.

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Selected Financial Data

The following tables summarize our financial data for the periods presented. The summary statement of operations data and balance sheet data for each of the years ended December 31, 2010, 2009, 2008, 2007, and 2006 have been derived from our audited financial statements. The audited financial statements for the years ended December 31, 2010, 2009, and 2008, and the report thereon, were included in our Annual Report on Form 10-K for the year ended December 31, 2010 and are incorporated by reference into this prospectus. The summary statement of operations data for the nine months ended September 30, 2011 and 2010 and summary balance sheet data as of September 30, 2011 have been derived from our unaudited financial statements which were included in our Quarterly Report on Form 10-Q for the quarter ended September 30, 2011 and are incorporated by reference into this prospectus. The pro forma balance sheet data gives effect to the sale of units offered by this prospectus at an aggregate offering amount of $9,360,000, based on an offering price of $1.00 per unit and after deducting placement agent fees and estimated offering expenses payable by us. Our historical results are not necessarily indicative of the results to be expected for any future periods.

Our interim unaudited financial statements have been prepared in accordance with generally accepted accounting principles in the United States of America, or GAAP, on the same basis as the annual audited financial statements and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary to a fair statement of our financial position as of September 30, 2011 and the results of its operations for the nine months ended September 30, 2010 and 2011.

You should read this data together with the financial statements and related notes incorporated by reference into this prospectus, as well as Management s Discussion and Analysis of Financial Condition and Results of Operations and the other financial information in our Annual Report on Form 10-K for the fiscal year ended December 31, 2010, which are incorporated by reference into this prospectus.

	Years Ended December 31,					Nine Months Ended September 30,	
	2010	2009	2008	2007	2006	2011	2010
	(In thousands, except per share data)						
Statement of operations data:							
Revenues	$13,900	$26,137	$31,121	$43,667	$55,250	$8,037	$10,833
Cost of revenues	7,050	7,536	9,012	11,338	13,558	3,522	4,049
Gross margin	6,850	18,601	22,109	32,329	41,692	4,515	6,784
(Loss) income from continuing operations[1]	(17,012)	(11,918)	(21,129)	(8,482)	4,461	(7,565)	(12,804)
(Loss) income from discontinued operations[2]			(6,601)	104			
Net (loss) income[1]	(16,891)	(11,918)	(27,730)	(8,378)	4,268	(7,565)	(12,683)
Net (loss) income per common share from continuing operations[3]:							
Basic	$(4.40)	$(4.26)	$(9.23)	$(4.03)	$2.05	$(1.96)	$(3.30)
Diluted	$(4.40)	$(4.26)	$(9.23)	$(4.03)	$1.96	$(1.96)	$(3.30)

Net (loss) income per common share from discontinued operations[3]:							
Basic	$	$	$(2.88)	$0.05	$	$	$
Diluted	$	$	$(2.88)	$0.05	$	$	$
Net (loss) income per common share[3]:							
Basic	$(4.40)	$(4.26)	$(12.11)	$(3.98)	$2.05	$(1.96)	$(3.30)
Diluted	$(4.40)	$(4.26)	$(12.11)	$(3.98)	$1.96	$(1.96)	$(3.30)

(1) Includes a $5,175 warrants fair value adjustment expense in 2009. Includes the following unusual items in 2008: goodwill impairment ($5,833); legal settlement ($3,706); intangible asset impairment ($1,768); gain from deconsolidation of joint venture ($2,100); and loss on available-for-sale investment ($2,500).

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(2) In December 2007, we acquired substantially all of the assets of EyeTel Imaging, Inc., or EyeTel, and their product, the DigiScope, a product used for the detection of eye disorders such as diabetic retinopathy. On September 30, 2008, we approved a plan to discontinue sales and support of DigiScopes and DigiScope related services, effective November 1, 2008. On November 7, 2008, we sold substantially all of the assets related to the DigiScope business to Advanced Diagnostics, LLC in exchange for assuming certain identified commitments of approximately $400 and a cash payment of $50.

(3) Per common share amounts have been adjusted for all periods presented to reflect a 1-for-6 reverse split of our common stock completed on September 1, 2011.

	As of December 31,					As of September 30,
	2010	2009	2008	2007	2006	2011
	(In thousands)					
Balance sheet data:						
Cash, cash equivalents, and short-term investments	$16,987	$30,432	$19,797	$29,719	$40,321	$11,715
Working capital	19,020	34,374	21,632	33,304	41,894	12,403
Total assets	23,066	40,567	31,147	56,209	55,543	16,149
Total liabilities[(1)]	2,867	4,857	8,314	9,479	12,134	3,028
Total stockholders equity	20,199	35,710	22,833	46,730	43,409	13,121

(1) Includes capital leases payable of $57, $64, $82, $31, and $0 as of December 31, 2010, 2009, 2008, 2007, and 2006, respectively. As of September 30, 2011 and 2010, includes capital leases payable of $43 and $42, respectively.

	As of September 30, 2011	
	Actual	Pro forma
	(In thousands)	
Pro forma balance sheet effects of this offering:		
Cash, cash equivalents, and short-term investments	$ 11,715	$ 21,075
Working capital	12,403	21,763
Total assets	16,149	25,509
Total liabilities	3,028	3,028
Total stockholders equity	13,121	22,481

The following table represents certain unaudited quarterly information for each of the four quarters in the periods ended December 31, 2010 and 2009 and the three quarters in the interim period ended September 30, 2011. In our opinion, this information has been prepared on the same basis as the audited financial statements incorporated by reference into this prospectus and includes all the adjustments necessary for a fair statement of the unaudited quarterly results of operations (in thousands, except per share data).

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
2011:				
Net loss	$ (2,697)	$ (2,437)	$ (2,431)	N/A

Basic and diluted net loss per share[1]	$ (0.70)	$ (0.63)	$ (0.63)	N/A
2010:				
Net loss	$ (4,764)	$ (4,519)	$ (3,400)	$ (4,208)
Basic and diluted net loss per share[1]	$ (1.24)	$ (1.18)	$ (0.89)	$ (1.09)
2009:				
Net (loss) income	$ (1,217)	$ (1,801)	$ (9,263)	$ 363
Basic and diluted net (loss) income per share[1]	$ (0.52)	$ (0.77)	$ (3.43)	$ 0.09

(1) Per common share amounts have been adjusted for all periods presented to reflect a 1-for-6 reverse split of our common stock completed on September 1, 2011.

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RISK FACTORS

Investing in our units, common stock and warrants involves a high degree of risk. You should carefully consider the following risk factors and all other information contained in or incorporated by reference into this prospectus before purchasing our units, common stock and warrants. If any of the following risks were to occur, our business, financial condition or results of operations could be materially and adversely affected. In these circumstances, the market price of our common stock could decline, and you may lose some or all of your investment.

Risks Related to Our Business

We have incurred significant operating losses since inception and cannot assure you that we will again achieve profitability.

The extent of our future operating income or losses is highly uncertain, and we may not be able to reach and sustain profitability. We have incurred significant cumulative net losses since our inception. Our net losses for the nine month period ended September 30, 2011 and for the years ended December 31, 2010, 2009, and 2008, were approximately $7.6 million, $16.9 million, $11.9 million, and $27.7 million, respectively, reflecting a decline in revenues. At September 30, 2011, we had an accumulated deficit of approximately $126.2 million. We cannot assure you that we will be able to reach or sustain profitability.

We have shifted our business focus to diabetes care. We cannot assure you that we will be successful in diabetes care or that our initial commercial product, NC-stat DPNCheck, for diagnosis and evaluation of systemic neuropathies, such as DPN, will be successful.

Our strategic focus is now on diabetes care. Our initial diabetes care product, NC-stat DPNCheck, is a rapid, cost-effective, quantitative test for systemic neuropathies, such as DPN. NC-stat DPNCheck is a modified version of our existing NC-stat device, designed specifically for the assessment of sural nerve conduction, a biomarker for DPN, at the point of care. We initiated commercial shipments of NC-stat DPNCheck in the third quarter of 2011. Our future prospects are closely tied to our success with NC-stat DPNCheck which, in turn, depends upon market acceptance and growth in future revenues. We cannot assure you that our diabetes care strategy, including the commercialization of NC-stat DPNCheck and other products in our development pipeline, will be successful. If our diabetes care strategy is not successful, it could materially affect our revenues and results of operations.

Our future success could be adversely affected by a number of factors, including:

inability of physicians to obtain patient payment for nerve testing using NC-stat DPNCheck;
inability to secure broad-based third party reimbursement to physicians for nerve testing using NC-stat DPNCheck;
decreased rates of patient visits to physicians;
unfavorable experiences by physicians using NC-stat DPNCheck;
physicians reluctance to alter their existing practices; and
the failure of other companies existing drug development programs to produce an effective treatment for large fiber diabetic peripheral neuropathy, which may limit the perceived need for and the actual use of NC-stat DPNCheck and thereby limit or delay our growth in the diabetes market.

If we are unable to expand the market for the NC-stat DPNCheck product, our ability to increase our revenues will be limited and our business prospects will be adversely affected.

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We currently rely on sales of the products that comprise the ADVANCE and NC-stat Systems to generate substantially all of our revenues. Any factors that negatively impact our sales of these products, including our plans to discontinue support of NC-stat in the first quarter of 2012, could significantly reduce our ability to generate revenues.

We launched the NC-stat System in May 1999 and introduced the ADVANCE System, our next generation nerve conduction testing system, in June 2008. We have derived, and continue to derive, substantially all of our revenues from sales of the products that comprise these two systems, particularly from electrodes. The NC-stat System is being phased out and will not be supported beyond the first quarter of 2012. We expect that sales of the ADVANCE System will continue to constitute the majority of our sales for the next year and beyond. Accordingly, our ability to generate revenues is dependent on our ability to market and sell the products that comprise the ADVANCE System, particularly electrodes. Our sales of these products may be negatively impacted by many factors, including:

the failure of the market to accept our products;
changes in reimbursement rates or policies relating to our products by third-party payers;
manufacturing problems;
claims that our products infringe on patent rights or other intellectual property rights owned by other parties;
adverse regulatory or legal actions relating to our products; and
clinical trial results relating to our products or our competitors products.

If any of these events occurs, our ability to generate revenues could be significantly reduced.

If physicians or other health care providers are unable to obtain sufficient reimbursement from third-party health care payers for procedures performed using our products, the adoption of our products and our future product sales will continue to be materially adversely affected.

Widespread adoption of our products by the medical community is unlikely to occur if physicians do not receive sufficient reimbursement from third-party payers for performing procedures using our products. If physicians are unable to obtain adequate reimbursement for procedures performed using our products, we may be unable to sell our products at levels that are sufficient to allow us to achieve and maintain profitability, and our business would suffer significantly. Additionally, even if these procedures are reimbursed by third-party payers, adverse changes in payers policies toward reimbursement for the procedures would harm our ability to market and sell our products. Third-party payers include those governmental programs such as Medicare and Medicaid, workers compensation programs, private health insurers and other organizations. These organizations may deny coverage if they determine that a procedure was not reasonable or necessary, for example, if its use was not considered medically appropriate, or was experimental, or was performed for an unapproved indication.

In addition, some health care systems are moving towards managed care arrangements in which they contract to provide comprehensive health care for a fixed cost per person, irrespective of the amount of care actually provided. These providers, in an effort to control health care costs, are increasingly challenging the prices charged for medical products and services and, in some instances, have pressured medical suppliers to lower their prices. Guidelines of the U.S. Centers for Medicare and Medicaid Services, or CMS, set the reimbursement rates for procedures covered by Medicare.

Future regulatory action by CMS or other governmental agencies or negative clinical results may diminish reimbursement payments to physicians for performing procedures using our products. Medicaid reimbursement differs from state to state, and some state Medicaid programs may not cover the procedures performed with our products or pay physicians an adequate amount for performing those procedures, if at all. Additionally, some private payers do not follow the Medicare guidelines and may reimburse for only a portion of these procedures or not at all. We are unable

to predict what changes will be made in the reimbursement methods used by private or governmental third-party payers.

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The CMS Physician Fee Schedule includes the category I CPT code 95905, or CPT 95905, for nerve conduction studies performed with preconfigured electrode arrays, such as those utilized with our ADVANCE System and with our NC-stat DPNCheck device. This code has been adopted throughout the Medicare system. Although Medicare now provides coverage for nerve testing using our proprietary pre-configured electrodes under CPT 95905 for at least some clinical indications, most commercial insurance companies have not revised their coverage policies. We generally do not foresee a significant near-term improvement in reimbursement for procedures performed with our neurodiagnostic devices. Additionally, we do not expect broad third-party reimbursement coverage for NC-stat DPNCheck to develop in the near term and cannot be sure of our eventual success in obtaining such coverage. We cannot assure you that third-party coverage will be available, that the amounts paid for procedures performed with our medical devices will be adequate, or that future legislation, regulation, or reimbursement policies of third-party payers will not adversely affect the demand for our products or our ability to sell these products on a profitable basis. Uncertain physician economics creates an obstacle to new account acquisition. The unavailability or inadequacy of third-party payer coverage or reimbursement could have a material adverse effect on our business, operating results, and financial condition.

We are subject to extensive regulation by the FDA which could restrict the sales and marketing of ADVANCE and NC-stat DPNCheck, as well as other products for which we may seek FDA clearance or approval, and could cause us to incur significant costs.

We sell medical devices that are subject to extensive regulation in the United States by the FDA with regard to manufacturing, labeling, sale, promotion, distribution, shipping and ongoing monitoring and follow-up. Before a new medical device, or a new use of or claim for an existing product, can be marketed in the United States, it must first be cleared or approved by the FDA. Medical devices may be marketed only for the indications for which they are approved or cleared. The regulatory review process can be expensive and lengthy. The FDA s process for granting 510(k) clearance typically takes approximately three to six months, but it can be significantly longer. The process for obtaining a pre-market approval, or PMA, is much more costly and onerous. By law, the time period designated for the FDA s review of a PMA is 180 days; however, this time is often extended and it is not uncommon for the PMA review process to take three years or longer from the time the application is filed with the FDA.

The FDA may remove our devices from the market or enjoin them from commercial distribution if safety or effectiveness problems develop. Further, we may not be able to obtain additional 510(k) clearances or pre-market approvals for new products or for modifications to, or additional indications for, our existing products in a timely fashion, or at all. Delays in obtaining future clearances or approvals would adversely affect our ability to introduce new or enhanced products in a timely manner, which in turn would harm our revenue and future profitability. We have made modifications to our devices in the past and may make additional modifications in the future that we believe do not or will not require additional clearances or approvals. If the FDA disagrees, and requires new clearances or approvals for the modifications, we may be required to recall and to stop marketing the modified devices. If any of these events occurs or if the FDA takes other enforcement actions, we may not be able to provide our customers with the products they require on a timely basis, our reputation could be harmed, and we could lose customers and suffer reduced revenues and increased costs.

In the second quarter of 2010, we were notified by the FDA that certain reporting functions of the onCall Information System, or onCall, that operates with our cleared NC-stat device and for which we submitted a 510(k) premarket notification in 2006 were deemed by the FDA to be not substantially equivalent, or NSE, to the cleared NC-stat System or other existing predicate devices. In its letter, the FDA indicated that we could submit another 510(k) with specific additional information identified in the letter. onCall has been in use since 1999, and continued in use with FDA s agreement after we voluntarily submitted a 510(k) in 2006 for these reporting functions, in order to resolve our differences of opinion with FDA as to whether such reporting functions had been covered by previous 510(k)

premarket notifications. We submitted an administrative appeal of FDA s NSE determination in July 2010. The appeal was made to the FDA s next level supervisor under Title 21 of the Code of Federal Regulations Part 10.75, Internal Agency Review of Decisions. In December 2010, FDA s next level supervisor upheld the NSE decision and stated that onCall should not be marketed nor should users of NC-stat devices continue to have access to certain components of onCall. The

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FDA response suggested that we submit a new 510 (k) for certain components of onCall. In our February 2011 reply to the FDA, we reported that we have implemented a year-long program to transition users of NC-stat devices to our 510(k) cleared ADVANCE System which does not use those components of onCall which are addressed in the NSE letter. This transition program is underway and is expected to be accomplished in the first quarter of 2012. Additionally, we have notified our customers that we will no longer support the NC-stat System.

Our NC-stat DPNCheck device for detection and evaluation of peripheral neuropathy at the point of care is a technical modification to the NC-stat device, has the same intended use, and does not use those portions of the onCall System referenced in the NSE decision. Under the FDA s published guidance on 510(k) requirements for modified devices, we do not believe that a new 510(k) submission is required for NC-stat DPNCheck.

We also are subject to numerous post-marketing regulatory requirements, including the FDA s quality system regulations, which relate to the design, manufacture, packaging, labeling, storage, installation and servicing of our products, labeling regulations, medical device reporting regulations and correction and removal reporting regulations. Our failure or the failure by any manufacturer of our products to comply with applicable regulatory requirements could result in enforcement action by the FDA. FDA enforcement actions relating to post-marketing regulatory requirements or other issues, including any issues arising from the not substantially equivalent letter described above, may include any of the following:

warning letters, untitled letters, fines, injunctions, product seizures, consent decrees and civil penalties;
requiring repair, replacement, refunds, customer notifications or recall of our products;
imposing operating restrictions, suspension or shutdown of production;
refusing our requests for 510(k) clearance or PMA approval of new products, new intended uses, or modifications to existing products;
requesting voluntary rescission of 510(k) clearances or withdrawing PMA approvals that have already been granted; and
criminal prosecution.

If any of these events were to occur, they could harm our reputation, our ability to generate revenues and our profitability.

Also, from time to time, legislation is introduced into Congress that could significantly change the statutory provisions governing the approval, manufacturing and marketing of medical devices. FDA regulations and guidance are often revised or reinterpreted by the agency in ways that may significantly affect our business and our products. It is impossible to predict whether legislative changes will be enacted, or FDA regulations, guidance or interpretations changed, and what the impact of such changes, if any, may be. The FDA has publicly stated that it is reevaluating its longstanding 510(k) review program. It is not clear when the program will be modified and what effect the modified review process will have on our ability to bring our product candidates to market.

We depend on several single source manufacturers to produce our products. Any material adverse changes in our relationships with these manufacturers could prevent us from delivering products to our customers in a timely manner and may adversely impact our future revenues or costs.

We rely on third-party manufacturers to manufacture all of the components of our NC-stat DPNCheck and ADVANCE systems. In the event that our manufacturers cease to manufacture sufficient quantities of our products in a timely manner and on terms acceptable to us, we would be forced to locate alternate manufacturers. Additionally, if our manufacturers experience a failure in their production process, are unable to obtain sufficient quantities of the components necessary to manufacture our products or otherwise fail to meet our quality requirements, we may be forced to delay the manufacture and sale of our products or locate an alternative manufacturer. We may be unable to

locate suitable alternative manufacturers for our products, particularly our electrodes and biosensors, for which the manufacturing process is relatively specialized, on

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terms acceptable to us, or at all. We have entered into exclusive manufacturing and supply agreements with Parlex Polymer Flexible Circuits, Inc. for the manufacture of the electrodes and biosensors for the domestic market. Sunburst EMS, Inc. manufactures electronic boards and other components of our NC-stat DPNCheck components which we assemble in-house to produce completed devices. Sunburst EMS, Inc. also manufactures our ADVANCE monitors, docking stations, and communication hubs.

We have experienced transient inventory shortages on new products during the initial production ramp-up phase. If any materially adverse changes in our relationships with these manufacturers occur, our ability to supply our customers will be severely limited until we are able to engage an alternate manufacturer or, if applicable, resolve any quality issues with our existing manufacturer. This situation could prevent us from delivering products to our customers in a timely manner, lead to decreased sales or increased costs, or harm our reputation with our customers.

If our manufacturers are unable to supply us with an adequate supply of products as we expand our markets, we could lose customers, our potential future growth could be limited and our business could be harmed.

In order for us to successfully expand our business within the United States and internationally, our contract manufacturers must be able to provide us with substantial quantities of our products in compliance with regulatory requirements, in accordance with agreed upon specifications, at acceptable cost and on a timely basis. Our potential future growth could strain the ability of our manufacturers to deliver products and obtain materials and components in sufficient quantities. Manufacturers often experience difficulties in scaling up production, including problems with production yields and quality control and assurance. If we are unable to obtain sufficient quantities of high quality products to meet customer demand on a timely basis, we could lose customers, our growth may be limited and our business could be harmed.

The success of our business depends upon our ability to advance our pipeline products to commercialization.

Currently, our revenues entirely depend upon sales of our ADVANCE and NC-stat systems, the sales of which have been declining in recent years. We are presently focused on commercializing NC-stat DPNCheck, advancing our pipeline of other diabetes products, and supporting the general purpose ADVANCE platform. We expect that advancing our pipeline products will require significant time and resources. We may not be successful in our commercialization efforts for any of the product candidates currently in our pipeline and we may not be successful developing, acquiring, or in-licensing additional product candidates, to the extent we decide to do so. If we are not successful advancing new products through our development pipeline, the regulatory process and commercial launch, our business, financial condition, and results of operations will be adversely affected.

The patent rights we rely upon to protect the intellectual property underlying our products may not be adequate, which could enable third parties to use our technology and would harm our ability to compete in the market.

Our success will depend in part on our ability to develop or acquire commercially valuable patent rights and to protect these rights adequately. The risks and uncertainties that we face with respect to our patents and other related rights include the following:

the pending patent applications we have filed or to which we have exclusive rights may not result in issued patents or may take longer than we expect to result in issued patents;

the claims of any patents that are issued may not provide meaningful protection;

we may not be able to develop additional proprietary technologies that are patentable;

other parties may challenge patents, patent claims or patent applications licensed or issued to us; and

other companies may design around technologies we have patented, licensed or developed.

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We also may not be able to protect our patent rights effectively in some foreign countries. For a variety of reasons, we may decide not to file for patent protection in the United States or in particular foreign countries. Our patent rights underlying our products may not be adequate, and our competitors or customers may design around our proprietary technologies or independently develop similar or alternative technologies or products that are equal or superior to our technology and products without infringing on any of our patent rights. In addition, the patents licensed or issued to us may not provide a competitive advantage. If any of these events were to occur, our ability to compete in the market would be harmed.

Other rights and measures we have taken to protect our intellectual property may not be adequate, which would harm our ability to compete in the market.

In addition to patents, we rely on a combination of trade secrets, copyright and trademark laws, confidentiality, nondisclosure and assignment of invention agreements and other contractual provisions and technical measures to protect our intellectual property rights. We rely on trade secrets to protect the technology and algorithms we use in our customer data processing and warehousing information system. While we currently require employees, consultants and other third parties to enter into confidentiality, non-disclosure or assignment of invention agreements or a combination thereof where appropriate, any of the following could still occur:

the agreements may be breached or not enforced in a particular jurisdiction;
we may have inadequate remedies for any breach;
trade secrets and other proprietary information could be disclosed to our competitors; or
others may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or disclose such technologies.

If, for any of the above reasons, our intellectual property is disclosed or misappropriated, it would harm our ability to protect our rights and our competitive position.

We may need to initiate lawsuits to protect or enforce our patents and other intellectual property rights, which could be expensive and, if we lose, could cause us to lose some of our intellectual property rights, which would harm our ability to compete in the market.

We rely on patents to protect a portion of our intellectual property and our competitive position. Patent law relating to the scope of claims in the technology fields in which we operate is still evolving and, consequently, patent positions in the medical device industry are generally uncertain. In order to protect or enforce our patent rights, we may initiate patent litigation against third parties, such as infringement suits or interference proceedings. Litigation may be necessary to:

assert claims of infringement;
enforce our patents;
protect our trade secrets or know-how; or
determine the enforceability, scope and validity of the proprietary rights of others.

Any lawsuits that we initiate could be expensive, take significant time and divert management s attention from other business concerns. Litigation also puts our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing. Additionally, we may provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded, if any, may not be commercially valuable. The occurrence of any of these events could harm our business, our ability to compete in the market or our reputation.

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Claims that our products infringe on the proprietary rights of others could adversely affect our ability to sell our products and increase our costs.

Substantial litigation over intellectual property rights exists in the medical device industry. We expect that our products could be increasingly subject to third-party infringement claims as the number of competitors grows and the functionality of products and technology in different industry segments overlap. Third parties may currently have, or may eventually be issued, patents on which our products or technologies may infringe. Any of these third parties might make a claim of infringement against us. Any litigation regardless of its impact would likely result in the expenditure of significant financial resources and the diversion of management s time and resources. In addition, litigation in which we are accused of infringement may cause negative publicity, adversely impact prospective customers, cause product shipment delays or require us to develop non-infringing technology, make substantial payments to third parties, or enter into royalty or license agreements, which may not be available on acceptable terms, or at all. If a successful claim of infringement were made against us and we could not develop non-infringing technology or license the infringed or similar technology on a timely and cost-effective basis, our revenues may decrease substantially and we could be exposed to significant liability.

If we or the manufacturers of our products fail to comply with the FDA s quality system regulation, the manufacturing and distribution of our products could be interrupted, and our product sales and operating results could suffer.

We and our contract manufacturers are required to comply with the FDA s quality system regulation, or QSR, which is a complex regulation that governs the procedures and documentation of the design, testing, production, control, quality assurance, labeling, packaging, sterilization, storage and shipping of our devices. The FDA enforces the QSR through periodic inspections. We cannot assure you that our facilities or the facilities of the manufacturers of our products would pass any future inspection. If our or any of the facilities of the manufacturers of our products fail an inspection, the manufacturing or distribution of our products could be interrupted and our operations disrupted. Failure to take adequate and timely corrective action in response to an adverse inspection could result in a suspension or shutdown of our packaging and labeling operations and the operations of the manufacturers of our products or a recall of our products, or other administrative or judicial sanctions. If any of these events occurs, we may not be able to provide our customers with the quantity of products they require on a timely basis, our reputation could be harmed, and we could lose customers and suffer reduced revenues and increased costs.

Our products may be subject to recalls, even after receiving FDA clearance or approval, which would harm our reputation, business and financial results.

We are subject to the medical device reporting regulations, which require us to report to the FDA if our products may have caused or contributed to a death or serious injury, or have malfunctioned in a way that would likely cause or contribute to a death or serious injury if the malfunction were to occur. We are also subject to the correction and removal reporting regulations, which require us to report to the FDA any field corrections and device recalls or removals that we undertake to reduce a risk to health posed by the device or to remedy a violation of the Federal Food, Drug and Cosmetic Act, or FDCA, caused by the device which may present a risk to health. In addition, the FDA and similar governmental agencies in other countries have the authority to require the recall of our products if there is a reasonable probability that the products would cause serious adverse health consequences or death. A government-mandated or voluntary recall by us could occur as a result of manufacturing defects, labeling deficiencies, packaging defects or other failures to comply with applicable regulations. Any recall would divert management attention and financial resources and harm our reputation with customers and could have a material adverse effect on our financial condition and results of operations.

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We are subject to federal and state laws prohibiting kickbacks and false or fraudulent claims, which, if violated, could subject us to substantial penalties. Additionally, any challenge to or investigation into our practices under these laws could cause adverse publicity and be costly to respond to, and thus could harm our business.

A federal law commonly known as the federal anti-kickback law, and several similar state laws, prohibit the payment of any remuneration that is intended to induce physicians or others either to refer patients or to acquire or arrange for or recommend the acquisition of health care products or services. These laws constrain a medical device company s sales, marketing and other promotional activities by limiting the kinds of business relationships and financial arrangements, including sales programs we may have with hospitals, physicians or other potential purchasers of medical devices. Other federal and state laws generally prohibit individuals or entities from knowingly presenting, or causing to be presented, claims for payment to Medicare, Medicaid or other third-party payers that are false or fraudulent, or for items or services that were not provided as claimed. From time to time, we may provide coding and billing information as product support to purchasers of our products. Anti-kickback and false claims laws prescribe civil and criminal penalties for noncompliance, which can be quite substantial including exclusion from participation in federal health care programs. A number of states have enacted laws that require pharmaceutical and medical device companies to monitor and report payments, gifts and other remuneration made to physicians and other health care professionals and health care organizations. Some state statutes, such as the one in Massachusetts, impose an outright ban on gifts to physicians. These laws are often referred to as gift ban or aggregate spend laws and carry substantial fines if they are violated. Similar legislation, known as the Physician Payments Sunshine Act, has been introduced in Congress each year for the past several years but has not yet been enacted. In the event that we are found to have violated these laws or determine to settle a claim that we have done so, our business may be materially adversely affected as a result of any payments required to be made, restrictions on our future operations or actions required to be taken, damage to our business reputation or adverse publicity in connection with such a finding or settlement or other adverse effects relating thereto. Additionally, even an unsuccessful challenge or investigation into our practices could cause adverse publicity, and be costly to respond to, and thus could harm our business and results of operations.

In February 2009, we announced that we had reached a resolution with the United States Department of Justice, or DOJ, and the Office of Inspector General, or OIG, of the United States Department of Health and Human Services regarding the previously-disclosed investigation into certain of our past sales and marketing practices relating to our NC-stat System. As part of the resolution with the DOJ and OIG, we entered into a three-year Deferred Prosecution Agreement with the DOJ and a five-year Corporate Integrity Agreement with the OIG. Failure to comply with the terms of the Deferred Prosecution Agreement and the Corporate Integrity Agreement could result in substantial civil or criminal penalties and being excluded from government health care programs, which could materially reduce our sales and adversely affect our financial condition and results of operations.

If we are found to have violated laws protecting the confidentiality of patient health information, we could be subject to civil or criminal penalties, which could increase our liabilities, damage our reputation and harm our business.

There are a number of federal and state laws protecting the confidentiality of individually identifiable patient health information, including patient records, and restricting the use and disclosure of that protected information. In particular, the U.S. Department of Health and Human Services promulgated patient privacy rules under the Health Insurance Portability and Accountability Act of 1996, or HIPAA. These privacy rules protect medical records and other personal health information by limiting their use and disclosure, giving individuals the right to access, amend and seek accounting of their own health information and limiting most use and disclosures of health information to the minimum amount reasonably necessary to accomplish the intended purpose. Although we do not believe that we are subject to the HIPAA rules, the exact scope of these rules has not been clearly established. If we are found to be in

violation of the privacy rules under HIPAA, we could be subject to civil or criminal penalties, which could increase our liabilities and harm our reputation or our business.

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The use of our products could result in product liability claims that could be expensive, damage our reputation and harm our business.

Our business exposes us to an inherent risk of potential product liability claims related to the manufacturing, marketing and sale of medical devices. The medical device industry historically has been litigious, and we face financial exposure to product liability claims if the use of our products were to cause or contribute to injury or death. Our NC-stat and ADVANCE systems and NC-stat DPNCheck may be susceptible to claims of injury because their use involves the electric stimulation of a patient s nerves. Although we maintain product liability insurance for our products and other commercial insurance, the coverage limits of these policies may not be adequate to cover future claims. As sales and use of our products increase, we may be unable to maintain sufficient product liability or other commercial insurance on acceptable terms or at reasonable costs, and this insurance may not provide us with adequate coverage against potential liabilities. A successful claim brought against us in excess of, or outside of, our insurance coverage could have a material adverse effect on our financial condition and results of operations. A product liability claim, regardless of its merit or eventual outcome, could result in substantial costs to us, a substantial diversion of management attention and adverse publicity. A product liability claim could also harm our reputation and result in a decline in revenues and an increase in expenses.

Our products are complex in design, and defects may not be discovered prior to shipment to customers, which could result in warranty obligations or product liability or other claims, reducing our revenues and increasing our costs and liabilities.

We depend upon third parties for the manufacture of our products. Our products, particularly our electrodes, require a significant degree of technical expertise to produce. If these manufacturers fail to produce our products to specification, or if the manufacturers use defective materials or workmanship in the manufacturing process, the reliability and performance of our products will be compromised.

If our products contain defects that cannot be repaired quickly, easily and inexpensively, we may experience:

loss of customer orders and delay in order fulfillment;
damage to our brand reputation;
increased cost of our warranty program due to product repair or replacement;
inability to attract new customers;
diversion of resources from our manufacturing and research and development departments into our service department; and
legal action.

The occurrence of any one or more of the foregoing could harm our reputation and materially reduce our revenues and increase our costs and liabilities.

If we lose any of our officers or key employees, our management and technical expertise could be weakened significantly.

Our success largely depends on the skills, experience, and efforts of our officers, including Shai N. Gozani, M.D., Ph.D., our founder, Chairman, President and Chief Executive Officer; Thomas T. Higgins, our Senior Vice President and Chief Financial Officer; Krishnamurthy Balachandran, our Senior Vice President and Chief Operating Officer, Neurodiagnostics; Guy Daniello, our Senior Vice President of Information Technology; and Michael Williams, Ph.D., our Senior Vice President of Engineering and Chief Technology Officer. We do not maintain key person life insurance policies covering any of our employees. The loss of any of our officers could weaken our management and technical expertise significantly and harm our business.

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If we are unable to recruit, hire and retain skilled and experienced personnel, our ability to manage and expand our business will be harmed, which would impair our future revenues and profitability.

We are a small company with only 58 employees as of December 31, 2011, and our ability to retain our skilled labor force and our success in attracting and hiring new skilled employees will be a critical factor in determining our future performance. We may not be able to meet our future hiring needs or retain existing personnel, particularly given the challenges our business has recently faced. We will face challenges and risks in hiring, training, managing and retaining engineering and sales and marketing employees. Failure to attract and retain personnel, particularly technical and sales and marketing personnel would materially harm our ability to compete effectively and grow our business.

Failure to develop or enter into relationships to sell products other than our existing products or enhance our existing products could have an adverse effect on our business prospects.

Our future business and financial success will depend, in part, on our ability to effectively market new products, such as NC-stat DPNCheck, and upgrade existing products, such as ADVANCE. Developing new products and upgrades to existing and future products imposes burdens on our research and development department and our management. This process is costly, and we cannot assure you that we will be able to successfully develop new products or enhance the current systems or any of our other current or future products. We also may not be able to enter into relationships with other companies to sell additional products. In addition, as we develop the market for our products, future competitors may develop desirable product features earlier than we do which could make our competitors products less expensive or more effective than our products and could render our products obsolete or unmarketable. If our product development efforts are unsuccessful, we will have incurred significant costs without recognizing the expected benefits and our business prospects may suffer.

We currently compete, and may in the future need to compete, against other medical device companies with potentially greater resources, more established distribution channels and other competitive advantages, and the success of these competitors may harm our ability to generate revenues.

We currently do, and in the future may need to, compete directly and indirectly with a number of other companies that may have competitive advantages over us. We compete with companies that sell traditional nerve conduction study and electromyography equipment including CareFusion Corporation, Cadwell Laboratories, Inc., and Natus Medical Incorporated. These companies enjoy significant competitive advantages, including:

- greater resources for product development, sales and marketing;
- more established distribution networks;
- greater name recognition;
- more established relationships with health care professionals, customers and third-party payers; and/or
- additional lines of products and the ability to offer rebates or bundle products to offer discounts or incentives.

As we develop the market for point-of-care nerve testing, particularly treatment of diabetic neuropathy, we may be faced with competition from these companies or others that decide and are able to enter this market. Some or all of our future competitors in the point-of-care market may enjoy competitive advantages such as those described above. If we are unable to compete effectively against existing and future competitors, our sales will decline and our business will be harmed.

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We are dependent upon the computer and communications infrastructure employed and utilized by our customer information system and any failures or disruptions in this infrastructure could impact our revenues and profit margins or harm our reputation.

We are dependent upon the computer and communications infrastructure employed and utilized by our customer information system. Our computer and communications infrastructure consists of standard hardware, off-the-shelf system software components, database servers, proprietary application servers, a modem bank and desktop applications. Our future success will depend, in part, upon the maintenance and growth of this infrastructure. Any failures or outages of this infrastructure as a result of a regulatory action by the FDA, computer virus, intentional disruption of our systems by a third-party, manufacturing failure, telephone system failure, fire, storm, flood, power loss or other similar events, could prevent or delay the operation of our onCall Information System, which could result in increased costs to eliminate these problems and address related security concerns and harm our reputation with our customers. In addition, if our infrastructure fails to accommodate growth in customer transactions, customer satisfaction could be impaired, we could lose customers, our ability to add customers could be impaired or our costs could be increased, any of which would harm our business.

If future clinical studies or other articles are published, or physician associations or other organizations announce positions that are unfavorable to our products, our sales efforts and revenues may be negatively affected.

Future clinical studies or other articles regarding our existing products or any competing products may be published that either support a claim, or are perceived to support a claim, that a competitor s product is more accurate or effective than our products or that our products are not as accurate or effective as we claim or previous clinical studies have concluded. Additionally, physician associations or other organizations that may be viewed as authoritative or have an economic interest in nerve conduction studies and in related electrodiagnostic procedures or other procedures that may be performed using our products could endorse products or methods that compete with our products or otherwise announce positions that are unfavorable to our products. We have experienced this with the professional societies representing the neurology community. Any of these events may negatively affect our sales efforts and result in decreased revenues.

As we continue to expand into foreign markets, we will be affected by new business risks that may adversely impact our financial condition or results of operations.

Foreign markets represented approximately 2% of our revenues in 2010 and 7% of our revenues for the first nine months of 2011. We are working to expand market penetration, particularly in Europe. As we continue to expand into foreign markets, we will be subject to new business risks, including:

failure to fulfill foreign regulatory requirements to market our products;
availability of, and changes in, reimbursement within prevailing foreign health care payment systems;
adapting to the differing business practices and laws in foreign countries;
difficulties in managing foreign relationships and operations, including any relationships that we establish with foreign distributors or sales or marketing agents;
limited protection for intellectual property rights in some countries;
difficulty in collecting accounts receivable and longer collection periods;
costs of enforcing contractual obligations in foreign jurisdictions;
recessions in economies outside of the United States;
political instability and unexpected changes in diplomatic and trade relationships;
currency exchange rate fluctuations; and

potentially adverse tax consequences.

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If we are successful in introducing our products into foreign markets, we will be affected by these additional business risks, which may adversely impact our financial condition or results of operations. In addition, expansion into foreign markets imposes additional burdens on our executive and administrative personnel, research and sales departments, and general managerial resources. Our efforts to introduce our products into foreign markets may not be successful, in which case we may have expended significant resources without realizing the expected benefit. Ultimately, the investment required for expansion into foreign markets could exceed the revenues generated from expansion.

Our loan and security agreement with Comerica Bank, which we refer to as our Comerica credit facility, contains financial and operating restrictions that may limit our access to credit. If we fail to comply with covenants in the Comerica credit facility, we may be required to repay any indebtedness thereunder, which may have an adverse effect on our liquidity.

Although we have not borrowed any funds under the Comerica credit facility, provisions in the Comerica credit facility impose restrictions on our ability to, among other things:

incur additional indebtedness;
create liens;
replace certain of our executive officers;
enter into transactions with affiliates;
transfer assets;
pay dividends or make distributions on, or repurchase, our capital stock; and
merge or consolidate.

In addition, we are required to meet certain financial covenants customary with this type of credit facility, including maintaining a minimum specified tangible net worth. The Comerica credit facility also contains other customary covenants. We may not be able to comply with these covenants in the future. Our failure to comply with these covenants may result in the declaration of an event of default and could cause us to be unable to borrow under the Comerica credit facility. In addition to preventing additional borrowings under the Comerica credit facility, an event of default, if not cured or waived, may result in the acceleration of the maturity of indebtedness outstanding under the Comerica credit facility at the time of the default, which would require us to pay all amounts outstanding. If an event of default occurs, we may not be able to cure it within any applicable cure period, if at all. If the maturity of our indebtedness is accelerated, we may not have sufficient funds available for repayment or we may not have the ability to borrow or obtain sufficient funds to replace the accelerated indebtedness on terms acceptable to us, or at all.

If we choose to acquire or invest in new businesses, products or technologies, instead of developing them ourselves, these acquisitions or investments could disrupt our business and could result in the use of significant amounts of equity, cash or a combination of both.

From time to time we may seek to acquire or invest in businesses, products or technologies, instead of developing them ourselves. Acquisitions and investments involve numerous risks, including:

the inability to complete the acquisition or investment;
disruption of our ongoing businesses and diversion of management attention;
difficulties in integrating the acquired entities, products or technologies;
difficulties in operating the acquired business profitably;
the inability to achieve anticipated synergies, cost savings or growth;
potential loss of key employees, particularly those of the acquired business;
difficulties in transitioning and maintaining key customer, distributor and supplier relationships;
risks associated with entering markets in which we have no or limited prior experience; and

unanticipated costs.

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In addition, any future acquisitions or investments may result in one or more of the following:

issuances of dilutive equity securities, which may be sold at a discount to market price;
the use of significant amounts of cash;
the incurrence of debt;
the assumption of significant liabilities;
increased operating costs or reduced earnings;
financing obtained on unfavorable terms;
large one-time expenses; and
the creation of certain intangible assets, including goodwill, the write-down of which may result in significant charges to earnings.

Any of these factors could materially harm our stock price, our business, or our operating results.

Risks Relating to Owning Our Common Stock

We will be required to raise additional funds to finance our operations and remain a going concern; we may not be able to do so when necessary, and/or the terms of any financings may not be advantageous to us.

We held cash and cash equivalents of $11.7 million as of September 30, 2011. We believe that these resources and the cash to be generated from expected product sales will be sufficient to meet our projected operating requirements at least until the fourth quarter of 2012. We continue to face significant challenges and uncertainties and, as a result, our available capital resources may be consumed more rapidly than currently expected due to (a) decreases in sales of our products and the uncertainty of future revenues from new products; (b) changes we may make to the business that affect ongoing operating expenses; (c) changes we may make in our business strategy; (d) regulatory developments affecting our existing products and delays in the FDA approval process for products under development; (e) changes in our research and development spending plans; and (f) other items affecting our forecasted level of expenditures and use of cash resources. Accordingly, we will need to raise additional funds to support our operating and capital needs. We may attempt to obtain additional funding through public or private financing, collaborative arrangements with strategic partners, or through additional credit lines or other debt financing sources to increase the funds available to fund operations. However, we may not be able to secure such financing in a timely manner and on favorable terms, if at all. Furthermore, if we issue equity or debt securities to raise additional funds, our existing stockholders may experience dilution, and the new equity or debt securities may have rights, preferences and privileges senior to those of our existing stockholders. If we raise additional funds through collaboration, licensing or other similar arrangements, it may be necessary to relinquish valuable rights to our potential products or proprietary technologies, or grant licenses on terms that are not favorable to us. Without additional funds, we may be forced to delay, scale back or eliminate some of our sales and marketing efforts, research and development activities, or other operations and potentially delay product development in an effort to provide sufficient funds to continue our operations. If any of these events occurs, our ability to achieve our development and commercialization goals would be adversely affected.

As we sell additional shares, our stock price may decline as a result of the dilution which will occur to existing stockholders.

Until we are profitable, we will need significant additional funds to develop our business and sustain our operations. Any additional sales of shares of our common stock and other securities exercisable into our common stock are likely to have a dilutive effect on some or all of our then existing stockholders. Resales of newly issued shares in the open market could also have the effect of lowering our stock price, thereby increasing the number of shares we may need to issue in the future to raise the same dollar amount and consequently further diluting our outstanding shares.

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The perceived risk associated with the possible sale of a large number of shares could cause some of our stockholders to sell their stock, thus causing the price of our stock to decline. In addition, actual or anticipated downward pressure on our stock price due to actual or anticipated issuances or sales of stock could cause some institutions or individuals to engage in short sales of our common stock, which may itself cause the price of our stock to decline.

If our stock price declines, we may be unable to raise additional capital. A sustained inability to raise capital could force us to go out of business. Significant declines in the price of our common stock could also impair our ability to attract and retain qualified employees, reduce the liquidity of our common stock and result in the delisting of our common stock from NASDAQ.

The trading price of our common stock has been volatile and is likely to be volatile in the future.

The trading price of our common stock has been highly volatile. Since our public offering in July 2004 through February 7, 2012 our stock price has fluctuated from a low of $1.15 to a high of $247.14. The market price for our common stock will be affected by a number of factors, including:

the denial or delay of regulatory clearances or approvals for our products under development or receipt of regulatory approval of competing products;
our ability to accomplish clinical, regulatory and other product development milestones and to do so in accordance with our timing estimates;
changes in policies affecting third-party coverage and reimbursement in the United States and other countries;
changes in government regulations and standards affecting the medical device industry and our products;
ability of our products to achieve market success;
the performance of third-party contract manufacturers and component suppliers;
actual or anticipated variations in our results of operations or those of our competitors;
announcements of new products, technological innovations or product advancements by us or our competitors;
developments with respect to patents and other intellectual property rights;
sales of common stock or other securities by us or our stockholders in the future;
additions or departures of key scientific or management personnel;
disputes or other developments relating to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;
trading volume of our common stock;
changes in earnings estimates or recommendations by securities analysts, failure to obtain or maintain analyst coverage of our common stock or our failure to achieve analyst earnings estimates;
public statements by analysts or clinicians regarding their perceptions of our clinical results or the effectiveness of our products;
decreases in market valuations of medical device companies;
general market conditions and other factors unrelated to our operating performance or the operating performance of our competitors; and
the risks identified in this section entitled Risk Factors.

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The stock prices of many companies in the medical device industry have experienced wide fluctuations that have often been unrelated to the operating performance of these companies. Periods of volatility in the market price of a company s securities can result in securities class action litigation against a company. If class action litigation is initiated against us, we may incur substantial costs and our management s attention may be diverted from our operations, which could significantly harm our business.

Our stock has previously been subject to delisting proceedings on NASDAQ and could be subject to such proceedings in the future which could affect its market price and liquidity and reduce our ability to raise capital.

Currently, our common stock trades on the NASDAQ Capital Market. We have previously received notifications from NASDAQ informing us of certain listing deficiencies, including failure to satisfy the minimum bid price and the minimum stockholders equity. Although we have since cured these deficiencies, it is possible that we could fall out of compliance again in the future. If we fail to maintain compliance with any listing requirements, we could be delisted and our stock would be considered a penny stock under regulations of the Securities and Exchange Commission, or SEC, and would therefore be subject to rules that impose additional sales practice requirements on broker-dealers who sell our securities. The additional burdens imposed upon broker-dealers by these requirements could discourage broker-dealers from effecting transactions in our common stock, which could severely limit the market liquidity of the common stock and your ability to sell our securities in the secondary market.

The low trading volume of our common stock may adversely affect the price of our shares.

Although our common stock is listed on the NASDAQ Capital Market, our common stock has experienced low trading volume. The 50 day average trading volume through February 7, 2012 as reported by NASDAQ was approximately 23,000 shares. Although we believe that this offering will improve the liquidity for our common stock, there can be no assurance that will occur. Limited trading volume may subject our common stock to greater price volatility and may make it difficult for investors to sell shares at a price that is attractive to them.

Anti-takeover provisions in our organizational documents and Delaware law, and the shareholder rights plan that we previously adopted in 2007, may discourage or prevent a change of control, even if an acquisition would be beneficial to our stockholders, which could affect our stock price adversely and prevent attempts by our stockholders to replace or remove our current management.

Our certificate of incorporation and bylaws contain provisions that could delay or prevent a change of control of our company or changes in our Board of Directors that our stockholders might consider favorable. Some of these provisions:

authorize the issuance of preferred stock which can be created and issued by the Board of Directors without prior stockholder approval, with rights senior to those of our common stock;

provide for a classified Board of Directors, with each director serving a staggered three-year term;

prohibit our stockholders from filling board vacancies, calling special stockholder meetings, or taking action by written consent;

provide for the removal of a director only with cause and by the affirmative vote of the holders of 75% or more of the shares then entitled to vote at an election of our directors; and

require advance written notice of stockholder proposals and director nominations.

We have also adopted a shareholder rights plan that could make it more difficult for a third party to acquire, or could discourage a third party from acquiring, the Company or a large block of our common stock. A third party that acquires 15% or more of our common stock could suffer substantial dilution of its ownership interest under the terms

of the shareholder rights plan through the issuance of common stock to all stockholders other than the acquiring person.

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In addition, we are subject to the provisions of Section 203 of the Delaware General Corporation Law, which may prohibit certain business combinations with stockholders owning 15% or more of our outstanding voting stock. These and other provisions in our certificate of incorporation, bylaws and Delaware law could make it more difficult for stockholders or potential acquirers to obtain control of our Board of Directors or initiate actions that are opposed by our then-current Board of Directors, including a merger, tender offer, or proxy contest involving our company. Any delay or prevention of a change of control transaction or changes in our Board of Directors could cause the market price of our common stock to decline.

We do not intend to pay cash dividends.

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all available funds and any future earnings for use in the operation and expansion of our business and do not anticipate paying any cash dividends in the foreseeable future. In addition, the terms of our Comerica credit facility precludes us from paying any dividends. As a result, capital appreciation, if any, of our common stock will be our stockholders sole source of potential gain for the foreseeable future.

Risks Related To This Offering

We have broad discretion in the use of the proceeds of this offering and may apply the proceeds in ways with which you do not agree.

Substantially all of our net proceeds from this offering will be used, as determined by management in its sole discretion, to continue work toward commercialization of our NC-stat DPNCheck product, for research and development activities and for working capital and other general corporate purposes. Our management will have broad discretion over the use and investment of the net proceeds of this offering. The failure of our management to apply these funds effectively could harm our business. You will not have the opportunity, as part of your investment decision, to assess whether our proceeds are being used appropriately. Pending application of our proceeds, they may be placed in investments that do not produce income or that lose value.

There is no public market for the warrants to purchase common stock in this offering.

There is no established public trading market for the warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the warrants on any securities exchange. Without an active market, the liquidity of the warrants will be limited.

If the registration statement covering the shares issuable upon exercise of the warrants contained in the units is no longer effective, the unit warrants may only be exercised on a cashless basis and will be issued with restrictive legends unless such shares are eligible for sale under Rule 144 of the Securities Act of 1933, as amended.

There must be a current prospectus and state registration or exemption in order for you to exercise the warrants.

Purchasers of the units in this offering will be able to exercise the warrants only if a current prospectus relating to the common stock underlying the warrants is then in effect and only if such securities are qualified for sale or exempt from qualification under the applicable securities laws of the states in which the various holders of warrants reside. Although we will attempt to maintain the effectiveness of a current prospectus covering the common stock underlying the warrants and maintain the registration or exemption of such common stock under the securities laws of the states

in which we initially sell the common stock and warrants in the offering, there can be no assurance that we will be able to do so. We will be unable to issue common stock to those persons desiring to exercise their warrants if a current prospectus covering the common stock issuable upon the exercise of the warrants is not kept effective or if such shares are neither qualified nor exempt from qualification in the states in which the holders of the warrants reside.

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The offering may not be fully subscribed, and, even if the offering is fully subscribed, we may need additional capital in the future. If additional capital is not available, we may not be able to continue to operate our business pursuant to our business plan or we may have to discontinue our operations entirely.

The placement agent in this offering will offer the units on a best-efforts basis, meaning that we may raise substantially less than the total maximum offering amount. No refund will be made available to investors if less than all of the units are sold. In the future we may require additional capital which we may seek to raise through, among other things, public and private equity offerings and debt financing. Any equity financings will be dilutive to existing stockholders, and any debt financings will likely involve covenants restricting our business activities. Additional financing may not be available on acceptable terms, or at all.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements. Forward-looking statements relate to future events or our future financial performance. We generally identify forward-looking statements by terminology such as may, will, should, expects, plans, anticipates, could, intends, target, projects, contemplates, believes, estimates, continue or the negative of these terms or other similar words, although not all forward-looking statements contain these words. Forward-looking statements include, but are not limited to, statements such as our estimates regarding anticipated operating losses, future revenues and projected expenses; our liquidity and our expectations regarding our needs for and ability to raise additional capital; our ability to manage our expenses effectively and raise the funds needed to continue our business; our belief that there are unmet needs in the diagnosis and treatment of diabetic neuropathy and our expectations surrounding NC-stat DPNCheck; our plans to develop and commercialize our products; our use of the net proceeds from this offering; the success and timing of our studies; our ability to obtain and maintain regulatory approval of our existing products and any future products we may develop; regulatory and legislative developments in the United States and foreign countries; the performance of our third-party manufacturers; our ability to obtain and maintain intellectual property protection for our products; the successful development of our sales and marketing capabilities; the size and growth of the potential markets for our products and our ability to serve those markets; the rate and degree of market acceptance of any future products; the loss of key scientific management or personnel; the reimbursement methods used by private or governmental third-party payers; and other factors discussed elsewhere in this prospectus. These statements are only predictions. Although we believe that we have a reasonable basis for each forward-looking statement contained in this prospectus, we caution you that these statements are based on our projections of the future that are subject to risks and uncertainties. The outcome of the events described in these forward-looking statements is subject to known and unknown risks, uncertainties and other factors that may cause our, our customers or our industry s actual results, levels of activity, performance or achievements expressed or implied by these forward-looking statements, to differ. Risk Factors and Business, as well as other sections in this prospectus or incorporated by reference into this prospectus, discuss some of the factors that could contribute to these differences.

The forward-looking statements made in this prospectus relate only to events as of the date on which the statements are made. We undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events.

This prospectus also contains market data related to our business and industry. These market data include projections that are based on a number of assumptions. While we believe these assumptions to be reasonable and sound as of the date of this prospectus, if these assumptions turn out to be incorrect, actual results may differ from the projections based on these assumptions. As a result, our markets may not grow at the rates projected by these data, or at all. The failure of these markets to grow at these projected rates may have a material adverse effect on our business, results of operations, financial condition and the market price of our common stock.

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USE OF PROCEEDS

We estimate that we will receive up to approximately $9,360,000 in net proceeds from the sale of units in this offering, based on an offering price of $1.00 per unit and after deducting placement agent fees and estimated offering expenses payable by us.

We intend to use the net proceeds of this offering for general corporate purposes, including continuing our commercialization efforts for our NC-stat DPNCheck product launched in September 2011 and developing SENSUS and other product candidates. We have not yet determined with certainty the manner in which we will allocate these net proceeds. Accordingly, our management will have broad discretion in the application of the net proceeds, and investors will be relying on the judgment of our management regarding the application of the proceeds of this offering.

Pending specific utilization of the net proceeds described above, we intend to invest the net proceeds in United States government securities and other short term, investment grade, interest bearing securities.

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PRICE RANGE OF OUR COMMON STOCK

Our common stock has been traded on NASDAQ under the symbol NURO since our initial public offering in July 2004. Our common stock was traded on the NASDAQ Global Market from its initial listing until March 23, 2011. As a part of our plan to cure our deficiencies with the continued listing requirements of the NASDAQ Global Market, we requested and were approved to transfer our listing to the NASDAQ Capital Market, effective March 24, 2011, where our stock now trades. The following table sets forth, for the periods indicated, the high and low sales prices of our common stock (rounded to the nearest penny) as reported by NASDAQ:

	High	Low
Fiscal Year 2012		
First Quarter (through February 7, 2012)	$ 1.58	$ 1.15
Fiscal Year 2011		
First Quarter	$ 4.14	$ 2.58
Second Quarter	$ 3.78	$ 2.46
Third Quarter	$ 3.30	$ 1.60
Fourth Quarter	$ 2.05	$ 1.15
Fiscal Year 2010		
First Quarter	$ 16.50	$ 10.50
Second Quarter	$ 11.40	$ 6.06
Third Quarter	$ 7.98	$ 3.13
Fourth Quarter	$ 4.50	$ 2.82

As of December 31, 2011, there were approximately 100 stockholders of record of our common stock. Because many of our shares of common stock are held by brokers and other institutions on behalf of stockholders, we are unable to estimate the total number of stockholders represented by these record holders.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our common stock. We currently intend to retain any future earnings to finance the growth and development of our business. Therefore, we do not anticipate declaring or paying any cash dividends in the foreseeable future. Any future determination as to the declaration and payment of dividends, if any, will be at the discretion of our Board of Directors and will depend on then existing conditions, including our financial condition, operating results, contractual restrictions, capital requirements, business prospects and other factors our Board of Directors may deem relevant. Our credit agreement also restricts our ability to pay dividends.

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CAPITALIZATION

The following table describes our capitalization and cash and cash equivalents as of September 30, 2011 on an actual basis and on a pro forma basis to reflect our sale of 10,500,000 units consisting of 10,500,000 shares of common stock together with warrants to purchase 5,250,000 shares of common stock in this offering at an offering price of $1.00 per unit, and the placement agent fees and estimated offering expenses payable by us.

You should read this capitalization table together with the financial statements and related notes that are incorporated by reference into this prospectus, as well as Management s Discussion and Analysis of Financial Condition and Results of Operations and the other financial information contained in our Annual Report on Form 10-K for the year ended December 31, 2010 and incorporated by reference into this prospectus.

	As of September 30, 2011	
	Actual	Pro forma
Cash and cash equivalents	$11,714,782	$21,074,782
Capital lease obligation, net of current portion	$23	$23
Stockholders equity:		
Preferred stock, $0.001 par value, 5,000,000 shares authorized, actual and pro forma; none issued and outstanding, actual and pro forma		
Common stock, $0.0001 par value: 50,000,000 shares authorized, actual; 3,888,082 shares issued and outstanding, actual; 50,000,000 shares authorized, pro forma; and 14,388,082 shares issued and outstanding, pro forma	389	1,439
Additional paid-in capital	139,289,445	148,648,395
Accumulated deficit	(126,169,102)	(126,169,102)
Total stockholders equity	13,120,732	22,480,732
Total capitalization	$13,120,755	$22,480,755

The preceding table excludes 1,430,480 shares of common stock issuable upon the exercise of warrants outstanding as of September 30, 2011 at an exercise price of $13.20 per share, 534,419 shares of common stock issuable upon the exercise of options outstanding as of September 30, 2011 at a weighted average exercise price of $23.98 per share, 145,734 shares of common stock available for future issuance under our 2004 Stock Option and Incentive Plan, 49,999 shares of common stock available for future issuance under our 2009 Non-qualified Inducement Stock Plan, and 23,364 shares of our common stock available for future issuance under our 2010 Employee Stock Purchase Plan. The preceding table also excludes up to 5,250,000 shares of common stock issuable upon the exercise of the warrants sold in this offering and up to 525,000 shares of common stock issuable upon the exercise of the warrants issued to the placement agent in connection with this offering.

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BUSINESS

Overview

We are a medical device company focused on the diagnosis and treatment of the neurological complications of diabetes. People with diabetes do not effectively regulate their blood glucose, or sugar, levels leading to chronically high levels of glucose in the blood, called hyperglycemia, and occasionally bouts of low glucose in the blood, called hypoglycemia. The primary reason that glucose levels are not effectively regulated in people with diabetes is that those with the disease do not produce insulin (Type I diabetes) or are resistant to the normal physiological action of insulin (Type II diabetes). Many Type II diabetics eventually require insulin because production of the hormone by their pancreas decreases with time. Type I diabetes usually affects children and teenagers whereas Type II diabetes has typically been a disease of adults over the age of 50. However, over the past decade, Type II diabetes is occurring in younger adults, which can probably be attributed to higher levels of obesity in this age group.

Diabetes is a worldwide epidemic. Recent studies estimate the worldwide prevalence of diabetes to be over 350 million people, of which approximately 90% of such population is of the Type II variety. Within the United States, there are over 25 million people with diabetes and another 80 million people with pre-diabetes, which represents a constellation of conditions such as obesity and high triglyceride levels that are likely to progress to diabetes. In the United States, the annual cost of treating diabetes is over $100 billion. Although there are dangerous acute manifestations of diabetes, the primary burden of the disease is in the long term complications of chronic high blood sugar, or hyperglycemia. These complications include among other things cardiovascular disease, nerve disease and resulting pathological conditions such as foot ulcers and amputation, eye disease leading to blindness, and kidney failure.

The most common long-term complication of diabetes, which affects over 50% of the diabetic population, is nerve disease or diabetic neuropathy. There are different forms of diabetic neuropathy; the most common are diabetic peripheral neuropathy, or DPN, carpal tunnel syndrome, or CTS, and autonomic neuropathy. DPN is a systemic nerve disease that is worse in the feet and lower legs. It may lead to loss of sensation in the feet, severe pain in the feet and legs, and increased risk of falling. DPN is the primary trigger for diabetic foot ulcers which may progress to the point where amputation is required. People with diabetes have a 15% to 25% lifetime risk of developing a foot ulcer and 15% of foot ulcers lead to amputation. Foot ulcers are among the most expensive complications of diabetes, with a typical cost of $5,000 to $50,000 per episode. CTS is caused by focal damage to the median nerve as it passes from the forearm into the hand, through the wrist. When the median nerve is compressed it can lead to symptoms in the hand including pain, numbness, and loss of strength. Autonomic neuropathy is a systemic disease of the autonomic nerves, which regulate the heart, digestion, sexual function, and other essential bodily functions. Damage to these nerves leads to a host of clinical complications that include an increased risk of sudden death, elevated risk of stroke, digestion difficulties and impotence.

Most people with diabetes receive health care attention in primary care settings where physicians have limited access to sophisticated diagnostic tools to detect diabetic neuropathy early and monitor its progress and response to treatment. As a result, they rely primarily on clinical examination of patients, which although it is an important part of the evaluation of a patient with diabetes, has limited sensitivity and specificity and can usually only detect later stage disease where treatment options and efficacy are compromised.

Early detection of DPN is particularly important because there are no treatment options once the nerves have degenerated. At the present time, the most widely used and recommended diagnostic method for DPN is the 5.07/10-g

monofilament test. This test assesses the patient s ability to detect focal pressure application in the foot. The inability to detect a monofilament indicates that the patient lacks adequate sensation to protect their feet from mechanical insults that can lead to foot ulcers; a condition known as loss of protection sensation, or LOPS. Although the monofilament is an important clinical test, it is insensitive to early DPN where interventions may slow or even halt further nerve damage. Nerve conduction studies, or NCS, are objective electrical tests of nerve function. They are widely considered the gold standard diagnostic method for DPN and can even detect mild nerve damage before it is expressed as clinical symptoms. NCS have typically been provided by specialists using expensive equipment and therefore access has been limited, particularly for common conditions such as DPN.

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Currently, there are limited treatment options for diabetic neuropathies. There are no approved disease modifying treatments for DPN, although a few pharmacological candidates are in clinical trials. Several large studies have shown that reducing hyperglycemia lowers the risk of developing DPN and decreases its severity. There is also observational data that suggests that reductions in triglyceride levels slows the progression of DPN. Several drugs, such as duloxetine, gabepentin, and pregabalin, have been approved to treat the pain associated with DPN, which is referred to as painful diabetic neuropathy. Unfortunately, these drugs, which are also anti-depressants or anti-seizure medications, have systemic effects and are therefore often associated with intolerable side effects. Like DPN, autonomic neuropathies are difficult to manage, however early identification may allow physicians to lower cardiovascular risk. Mild to moderate CTS is effectively treated with conservative measures such as splinting and local steroid injections. More advanced CTS is usually managed surgically. In either case, it is essential to intervene before extensive nerve degeneration has occurred.

Our Strategy

We believe that there are large and important unmet needs in both the diagnosis and treatment of diabetic neuropathies. As a medical device company with both unique and substantial experience in devices to measure and alter peripheral nerve function, we believe we are in the unique position to address these unmet needs through the development of novel proprietary medical devices. Therefore, we are focused on developing and marketing medical devices for the diagnosis and treatment of diabetic neuropathies. We believe that we are the only medical device company with a strategic focus on the diabetic neuropathy vertical market and our goal is to be the dominant player in this field.

Our key business strategies by which we intend to meet our objectives in diabetic neuropathy include:

Drive Adoption of NC-stat DPNCheck, Our Initial Product for Diabetic Neuropathy, in the United States. NC-stat DPNCheck was launched in September 2011. Our initial target market is endocrinologists and podiatrists in the United States. We believe that this market represents approximately 15,000 physicians who are viewed as leaders in the detection and management of DPN. We initiated sales into this market through a direct, specialty sales force that we hired, trained and deployed during the third quarter of 2011.

Over 100,000 primary care physicians provide front-line care to approximately 85% of people with diabetes in the United States. We believe this is the most attractive sector of the United States market for NC-stat DPNCheck. Due to the size of the market and the large number of potential call points, we believe that the most effective sales approach is through national and/or regional third party distributors. Our strategy is to first establish product credibility in the endocrinology/podiatry market before negotiating arrangements with distributors to address the United States primary care market.

We believe that there may be an opportunity to sell NC-stat DPNCheck for use in retail medical clinics such as those in chain drug stores and department store pharmacies. There are approximately 1,200 retail medical clinics in the United States, a number growing at a double digit rate.

We believe that corporate accounts, including managed care organizations, companies that self-insure the health care risks of their employee populations, and governmental entities represent an attractive opportunity because of their focus on prevention and on health care costs over long durations. We plan to hire internal sales resources to market NC-stat DPNCheck directly to these corporate accounts.

Commercialize NC-stat DPNCheck in Select International Markets Using a Distribution Network. We have gained some experience in international markets with our ADVANCE System, which is currently used in the United Kingdom, Netherlands and India, among other countries, and which we sell through a distribution network. While international markets are a secondary priority at present, we believe we can leverage our distribution network to either sell NC-stat DPNCheck or to help us identify more appropriate distributors.

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Expand Our Diabetic Neuropathy Products in the Near Term to Include SENSUS, a Pain Therapy Device. We are developing SENSUS, a pain therapy device which is a transcutaneous electrical nerve stimulator designed specifically for use in treating painful diabetic neuropathy. We believe that our unique expertise in peripheral nerve stimulation will expedite product development resulting in a product that is attractive to endocrinologists, podiatrists, and primary care physicians that are challenged with trying to manage pain in their patients with diabetes.

Initiate Clinical Studies to Further Validate the Clinical and Economic Benefits of Our Diabetes Products. We appointed a Chief Medical Officer in September 2011 who is responsible for developing and managing our diabetes-related clinical programs. These include studies to further validate the clinical and economic benefits of NC-stat DPNCheck testing, and various clinical and research and development activities in support of new diabetic neuropathy focused products, including SENSUS. This work should provide important support to our commercialization efforts and our efforts to obtain third party reimbursement for physicians using our products.

Obtain Coverage and Payment for NC-stat DPNCheck. While payers are not our direct customers, their coverage and reimbursement policies influence medical practice. We believe that NC-stat DPNCheck is appropriately described under the existing Category I CPT Code 95905; however, we expect only limited third-party reimbursement for health care providers using the device to detect and monitor diabetic neuropathy. We believe that the low cost of testing with NC-stat DPNCheck combined with its clinical utility will result in the development of an out-of-pocket payment model. We intend to initiate the type of clinical studies that may lead to expanded third party coverage over time.

Manage Our Legacy Neurodiagnostics Business to Optimize Cash Flow. Our neurodiagnostics business currently accounts for nearly all of our revenue. We restructured this portion of our business in January 2011 when we shifted our strategic focus toward more attractive opportunities in diabetes care. Accordingly, the legacy business is managed for cash and not growth and it is our intention to continue to carefully manage this business in order to optimize its future cash contribution.

Our Business Model

We develop and market neurodiagnostic systems which typically consist of a medical device plus single-use biosensors or electrodes. Other accessories are also offered to our customers. Our goal for these systems is to build an installed base of active customer accounts that regularly reorder consumables to meet their clinical practice needs. We successfully implemented this model when we started our business with the NC-stat System, applied it to subsequent product generations and, more recently, to the ADVANCE System. The planning for our diabetes care pipeline including NC-stat DPNCheck and products in development such as SENSUS, is based on the device plus consumables business model.

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Marketed Products

NC-stat DPNCheck

NC-stat DPNCheck is a fast, accurate, and quantitative nerve conduction test that is used to evaluate systemic neuropathies such as DPN. It is designed to be used by primary care physicians, endocrinologists, podiatrists and other clinicians at the point-of-care to objectively detect, stage, and monitor DPN. The device measures nerve conduction velocity and response amplitude of the sural nerve, a nerve in the lower leg and ankle. These parameters are widely recognized as sensitive and specific biomarkers of DPN.

NC-stat DPNCheck is comprised of: (1) an electronic hand-held device, and (2) a single patient use biosensor. In addition, the Company provides users with PC-based software that links to the device via a USB connection. This PC software allows physicians to generate reports and manage their sural nerve conduction data.

NC-stat DPNCheck is a modified version of our previously marketed NC-stat nerve testing device, and has the same clinical indications with respect to DPN. The modified device has the same functionality with respect to sural nerve testing as the original device, however the cost of the electronic hand-held unit and the consumable biosensors have been reduced by approximately 50%. The original NC-stat System was launched in 1999, and new sales of the device were discontinued in the third quarter of 2010. It will not be supported beyond the first quarter of 2012. Over 1.5 million patient studies have been performed with the NC-stat technology, including over 600,000 sural nerve tests. It has been the subject of many published studies, including several studies specifically addressing the accuracy and clinical utility of the device in assessment of DPN.

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ADVANCE System

The ADVANCE System is a comprehensive platform for the performance of traditional nerve conduction studies and invasive electromyography procedures. The ADVANCE System is comprised of: (1) various types of electrodes and needles, (2) the ADVANCE device and related modules, and (3) a communication hub that enables the physician s office to network their device to their personal computers and our servers for data archiving, report generation, and other network services. The ADVANCE System is most commonly used with proprietary nerve specific electrode arrays. These electrode arrays combine multiple individual electrodes and embedded microelectronic components into a single patient-use disposable unit. We currently market seven different nerve specific electrode arrays.

Historically, the ADVANCE System has been marketed to a broad range of physician specialties including neurologists, orthopedic surgeons, primary care physicians, and endocrinologists, and utilized for a variety of different clinical indications including assessment of CTS, low back and leg pain, and DPN. It is most commonly used in the assessment of CTS. Numerous papers have been published on the use of this technology in this clinical application. With our focus on diabetic neuropathies, we intend to target new sales of ADVANCE Systems for use by endocrinologists and primary care physicians who evaluate patients with diabetes and upper extremity symptoms suggestive of CTS.

Products in Development

SENSUS

The SENSUS pain therapy device is a transcutaneous electrical nerve stimulator, or TENS, designed specifically for use in treating painful diabetic neuropathy, or PDN. A recent evidence based review by the American Academy of Neurology determined that TENS was a useful modality for managing this form of pain. TENS may reduce pain in patients with PDN without significant side effects and we believe that a PDN-specific TENS device that is effective, easy to use and low cost could improve management of pain in patients with PDN. We further believe that currently available TENS devices do not meet this need because they are not optimized for PDN, but are instead targeted at low back pain, sports medicine, and rehabilitation applications. Furthermore, they are difficult to administer and tend to be complicated for clinicians and patients.

We are using our unique expertise in peripheral nerve stimulation to develop a PDN optimized TENS device with several proprietary features that we believe will make it attractive to endocrinologists, podiatrists, and primary care physicians that are challenged with trying to manage pain in their patients with diabetes.

TENS devices are regulated as Class II devices and require a 510(k) premarket notification prior to commercial distribution. When medically indicated and supported by proper documentation, TENS are generally reimbursed by Medicare and many commercial insurance companies under the durable medical equipment, or DME, benefit.

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ADVANCE CTS

We are currently exploring the market for a version of the ADVANCE device dedicated to detection of CTS in people with diabetes. The second most common form of diabetic neuropathy is focal damage to the median nerve, or CTS. We are currently investigating this market opportunity by creating a diabetes CTS package consisting of the ADVANCE NCS/EMG device and the combined median and ulnar nerve specific electrode, both of which are commercially available. If we determine that an attractive market exists for this clinical indication, then we will invest in development of an easier to use and lower cost version of the ADVANCE system dedicated specifically to detection of CTS in diabetes. This effort will consist primarily of modifying the device hardware and form factor to lower costs and enhance manufacturability. We also expect to simplify the software to eliminate support for non-CTS related functions. We believe that these modifications will not require a new 510(k), under the guidance issued by the Food and Drug Administration, or the FDA, on when new 510(k) submissions are required for modified devices. However, we will make a final determination on whether to file a 510(k) when the engineering work has been completed. We do not believe that these modifications will alter the appropriateness of billing for studies performed with ADVANCE CTS under CPT 95905 or the likelihood of obtaining reimbursement from Medicare and other third party insurers.

The following chart summarizes our marketed products and products in development as of December 31, 2011.

Product	Time on Market		Technology	Primary Clinical Indications	No. Patients Tested/Treated
NC-stat*	Q2 1999	Q3 2010	Nerve Conduction	Diagnosis and evaluation of CTS, low back pain, peripheral neuropathies (including DPN)	>1,500,000
ADVANCE	Q2 2008	present	Nerve Conduction Invasive Needle EMG	Diagnosis and evaluation of CTS, low back pain, peripheral neuropathies (including DPN)	>103,000
NC-stat DPNCheck	Q3 2011	present	Nerve Conduction	Diagnosis and evaluation of peripheral neuropathies, such as DPN	1,000 3,000
SENSUS	Target Q4 2012		Transcutaneous Electrical Nerve Stimulation	Relief for chronic, intractable pain, such as painful diabetic neuropathy	N/A
ADVANCE CTS	Target Q4 2012		Nerve Conduction	Diagnosis and evaluation of CTS	N/A

* **Support to be discontinued in the first quarter of 2012.**

Customers

Our customers include physicians, clinics, and hospitals. As of December 31, 2011, we had an installed base of approximately 3,000 active customers using our ADVANCE and NC-stat Systems. These customers include primary care, internal medicine, orthopedic and hand surgeons, pain medicine physicians, neurologists, physical medicine and rehabilitation, or PM&R, physicians, and neurosurgeons. Our NC-stat DPNCheck device was launched into the endocrinology/podiatry market in the third quarter of 2011. No single customer has accounted for more than 10% of our revenues in 2010, 2009, 2008 or for the nine month period ended September 30, 2011.

Geographic Information

Substantially all of our assets, revenues, and expenses for the years ended December 31, 2010, 2009, and 2008 and for the nine month period ended September 30, 2011 were located at or derived from operations in the United States. In addition, we have had limited but growing sales through distributors in the United Kingdom, the Netherlands, India, and various other countries. For each of the years ended December 31, 2010

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and 2009, international revenues accounted for approximately 2% of our total revenues and for the year ended December 31, 2008, accounted for less than 1% of our total revenues. For the nine month period ended September 30, 2011, international revenues accounted for approximately 7% of our total revenues.

Sales, Marketing, and Distribution

NC-stat DPNCheck was launched in September 2011. Our initial target market is the United States endocrinology/podiatry market. We initiated sales into that market through a direct, specialty sales force that we hired, trained and deployed during the third quarter of 2011. This specialty sales organization consists of a Sales Director and eight field sales representatives who cover thirty states selected on the basis of diabetes population, number of endocrinologists and podiatrists, and income levels. Sales in the remaining states are covered by our team of field-based clinical educators.

Our installed base of ADVANCE and NC-stat accounts in the United States are supported by our clinical educators which include a Director of Clinical Education and nine field clinical educators. Our direct sales force which targeted new accounts was discontinued in January 2011 and we are not actively pursuing new ADVANCE customers. Interest expressed in new ADVANCE systems by potential customers is handled by our clinical educators and our marketing department. Internationally, ADVANCE sales and account support is handled by our network of independent distributors who are directed by our European Sales Manager and our Chief Operating Officer.

Our marketing support for NC-stat DPNCheck and for ADVANCE is provided by our Vice President, Marketing, our Marketing Manager, Diabetes and two marketing staff.

We invest significant effort in technical, clinical, and business practices training for our sales organization, clinical educators, marketing staff and independent sales representatives. We also require attendance at periodic sales and product training programs. Promotion and sales of medical devices are highly regulated not only by the FDA, but also by the Federal Trade Commission and, outside the United States, by other international bodies, and are subject to federal and state fraud and abuse enforcement activities.

Manufacturing and Supply

We rely on outside contractors for the manufacture and servicing of our products and their components, and we do not currently maintain alternative manufacturing sources for our NC-stat DPNCheck and ADVANCE devices, communication hubs, biosensors/electrodes, or any other finished goods products. In outsourcing, we target companies that meet FDA, International Organization for Standardization, or ISO, and other quality standards supported by internal policies and procedures. Supplier performance is maintained and managed through a corrective action program ensuring all product requirements are met or exceeded. We believe these manufacturing relationships minimize our capital investment, provide us with manufacturing expertise, and help control costs.

Following the receipt of products or product components from our third-party manufacturers, we conduct the necessary inspection, final assembly, kitting, packaging, and labeling at our corporate headquarters facility. We may consider manufacturing certain products or product components internally, if and when demand or quality requirements make it appropriate to do so. We currently have no plans to manufacture any products or product components internally.

Sunburst EMS, Inc., or Sunburst, has been manufacturing our NC-stat devices and docking stations since November 2005. We entered into a supply agreement with Sunburst during 2006 for the manufacturing and supply of our

neurodiagnostic devices. Sunburst currently manufactures the current generation of our ADVANCE and NC-stat DPNCheck devices at a facility in Massachusetts.

Polymer Flexible Circuits, Inc., or Parlex, has been manufacturing our nerve specific electrodes since early 1999. In the second quarter of 2011, Parlex began manufacturing the NC-stat DPNCheck biosensors. In August 2006, we entered into a mutually exclusive manufacturing and supply agreement with Parlex pursuant to which Parlex will manufacture and supply to us, and we will purchase from Parlex, at agreed upon prices per unit, all of our requirements of nerve conduction testing electrodes for resale in the United States. Under the agreement, Parlex has agreed not to manufacture electrodes to be used to measure nerve conduction for any other company during the term of the agreement and, in some cases, for a period of one year thereafter.

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Either party may terminate the agreement at any time upon not less than 18 months prior written notice. Parlex manufactures our electrodes at a facility in Massachusetts and also has the ability to perform certain manufacturing steps for our electrodes at a second site located in the United Kingdom.

We and our third-party manufacturers are registered with the FDA and subject to compliance with FDA quality system regulations. We are also ISO registered and undergo frequent quality system audits by European agencies. Our ADVANCE System is cleared for marketing within the United States, Canada, and the European Union. Our facility and the facility of our contract device manufacturer are subject to periodic inspections by regulatory authorities, and may undergo compliance inspections conducted by the FDA and corresponding state agencies. As a registered device manufacturer, we and our manufacturer will undergo regularly scheduled FDA quality system inspections. However, additional FDA inspections may occur if deemed necessary by the FDA.

Research and Development

We believe that we have research and development capability that is unique to the industry. Key members of our research and development, or R&D, management team have worked together for over a decade. This team includes the extensive involvement of our founder and Chief Executive Officer who holds both M.D. and Ph.D. degrees. The R&D group consists of 15 people, including 5 who hold Ph.D. or M.D. degrees. The group has extensive experience in neurophysiology, biomedical instrumentation, signal processing, biomedical sensors, and information systems. The R&D group works closely with our marketing group and our customers to design products that are focused on improving clinical outcomes. Our clinical programs are led by our Chief Medical Officer who is a board-certified endocrinologist with extensive diabetes management experience.

Our research and development efforts are primarily focused in two areas:

Enhancements to our first generation NC-stat DPNCheck device. We are focused on improving NC-stat DPNCheck s clinical utility, enhancing device usability, and lowering manufacturing costs. We are also in the process of evaluating the design of a second generation NC-stat DPNCheck device.

Development of a first generation version of our SENSUS pain therapy device. This device is based on many of the same electronic and neurophysiological principles as our neurodiagnostic devices and therefore we believe that we can efficiently develop a commercial product that may be useful in the treatment of painful diabetic neuropathy.

In addition to these core areas of research and development focus, we are also exploring additional clinical applications within the diagnosis and treatment of diabetic neuropathy for our core technology and expertise. We believe that we are well positioned to develop additional point-of-care diagnostic devices such as for autonomic neuropathy and therapies that aid in the management of both mild and advanced forms of DPN.

Research and development expenses were approximately $5.9 million, $5.6 million, and $5.6 million for the years ended December 31, 2010, 2009 and 2008, and $3.0 million for the nine months ended September 30, 2011.

Clinical Programs

We maintain an active clinical program under the direction of our Chief Medical Officer, who is a board certified endocrinologist with extensive experience in diabetes. Our clinical programs are comprised of internal, collaborative, and external clinical studies. Internal clinical studies are designed and implemented directly by us for the purposes of product design and early clinical validation. Collaborative studies are conducted together with leading researchers around the world to provide clinical validation and to explore the clinical utility of our products. External studies are entirely independent of us, although in many cases the researchers request unrestricted grants for financial and/or

material support, such as for devices and consumables. External studies may examine the clinical performance and utility of our products or our products may be used as outcomes measures. For example, the National Institute of Health, or NIH, has funded large scale epidemiological studies of occupational carpal tunnel syndrome using our NC-stat device as a key component of the case definition.

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We actively seek to publish our clinical study results in leading peer-reviewed journals while also encouraging our clinical collaborators and clinical study grant recipients to do the same.

Competition

We believe that there is currently no objective and standardized test for DPN widely available at the point-of-care. The American Diabetes Association, or ADA, and other organizations recommend at least annual evaluation of all people with diabetes for DPN. Due to cost and availability, this screen is typically performed with a simple (5.07/10g) monofilament. This subjective method identifies late stage neuropathy where intervention is generally limited to foot care. Experts in the field have indicated that there is a large unmet need for a practical, objective, and sensitive test for diabetic neuropathy that can be widely deployed in the regular care of all people with diabetes. Monofilaments (5.07/10g) are a commodity sold by a number of medical supply companies.

There are a number of companies that sell neurodiagnostic devices. These companies include CareFusion Corporation, Cadwell Laboratories, Inc., and Natus Medical Incorporated. CareFusion Corporation has substantially greater financial resources than we do. CareFusion Corporation and Cadwell Laboratories, Inc. have established a reputation as having effective worldwide distribution channels for medical instruments to neurologists and PM&R physicians.

With respect to SENSUS, there are numerous manufactures of transcutaneous electrical nerve stimulation devices. We believe that the largest company is Empi, Inc. which is part of DJO Incorporated. We further believe that most of the current manufacturers are focused on low back pain, sports medicine, and rehabilitation rather than on painful diabetic neuropathy. As a result, we are not aware of any devices that are uniquely optimized for use in treating painful diabetic neuropathy. There are a few companies that claim that their devices have specific utility for painful diabetic neuropathy, however we do not believe that these claims have been widely validated through adequate clinical studies.

Intellectual Property

We rely on a combination of patents, trademarks, copyrights, trade secrets, and other intellectual property laws, nondisclosure agreements and other measures to protect our proprietary technology, intellectual property rights, and know-how. We hold issued utility patents covering a number of important aspects of our NC-stat, ADVANCE, and NC-stat DPNCheck. We believe that in order to have a competitive advantage, we must develop and maintain the proprietary aspects of our technologies. We also require our employees, consultants and advisors, whom we expect to work on our products, to agree to disclose and assign to us all inventions conceived, developed using our property, or which relate to our business. Despite any measures taken to protect our intellectual property, unauthorized parties may attempt to copy aspects of our products or to obtain and use information that we regard as proprietary.

Patents

As of December 31, 2011, we had 34 issued U.S. patents, 11 issued foreign patents, and 24 pending patent applications, including 17 U.S. applications, 3 international PCT applications, and 4 foreign national applications. We have filed a utility patent application for NC-stat DPNCheck and a provisional patent for SENSUS.

Our issued design patents begin to expire in 2015, and our issued utility patents begin to expire in 2017. In particular, seven of our issued U.S. utility patents covering various aspects of our current products will expire on the same date in 2017. Although the patent protection for material aspects of our products covered by the claims of the patents will be lost at that time, we have additional patents and patent applications directed to other novel inventions that will have patent terms extending beyond 2017.

The medical device industry is characterized by the existence of a large number of patents and frequent litigation based on allegations of patent infringement. Patent litigation can involve complex factual and legal questions, and its outcome is uncertain. Any claim relating to infringement of patents that is successfully asserted against us may require us to pay substantial damages. Even if we were to prevail, any litigation could be costly and time-consuming and would divert the attention of our management and key personnel from our business operations. Our success will also depend in part on our not infringing patents issued to others,

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including our competitors and potential competitors. If our products are found to infringe the patents of others, our development, manufacture, and sale of these potential products could be severely restricted or prohibited. In addition, our competitors may independently develop similar technologies. Because of the importance of our patent portfolio to our business, we may lose market share to our competitors if we fail to protect our intellectual property rights.

A patent infringement suit brought against us may force us or any strategic partners or licensees to stop or delay developing, manufacturing, or selling potential products that are claimed to infringe a third-party s intellectual property, unless that party grants us rights to use its intellectual property. In such cases, we may be required to obtain licenses to patents or proprietary rights of others in order to continue to commercialize our products. However, we may not be able to obtain any licenses required under any patents or proprietary rights of third parties on acceptable terms, or at all. Even if we were able to obtain rights to the third-party s intellectual property, these rights may be non-exclusive, thereby giving our competitors access to the same intellectual property. Ultimately, we may be unable to commercialize some of our potential products or may have to cease some of our business operations as a result of patent infringement claims, which could severely harm our business.

Trademarks

We hold domestic registrations for the marks NEUROMETRIX, NC-STAT and onCall. We use a trademark for ADVANCE and NC-stat DPNCHECK. We hold certain foreign trademark registrations for the marks NEUROMETRIX and NC-STAT.

Third-Party Reimbursement

Procedures performed with our neurodiagnostic medical devices may be paid for by third-party payers, including government health programs, such as Medicare, and private insurance and managed care organizations. The 2012 Physicians Fee Schedule published by the U.S. Centers for Medicare and Medicaid Services, or CMS, includes CPT 95905 for nerve conduction studies performed with pre-configured electrode arrays such as are used with the NC-stat DPNCheck device and the ADVANCE System.

We believe that physicians are generally receiving reimbursement under CPT 95905 from Medicare for nerve conduction studies performed using pre-configured electrode arrays that meet the medical necessity requirements in their local Medicare region. We also believe that physicians are receiving reimbursement for CPT 95905 from a few commercial insurers. We are working with reimbursement experts to expand coverage for CPT 95905 and with physicians for their adoption of patient advance beneficiary notices where they believe that nerve conduction testing may not be covered by commercial insurers. Reimbursement by third-party payers is an important element of success for medical device companies. We do not foresee a significant near-term improvement in reimbursement for procedures performed with our neurodiagnostic devices.

NC-stat DPNCheck was launched in September 2011. Although we believe that NC-stat DPNCheck is appropriately described by CPT 95905, we expect only limited third-party reimbursement for health care providers using the device to diagnose and evaluate DPN. However, given the anticipated low costs involved combined with clinical upside of this test to people with diabetes and to physicians caring for them, we believe that an out-of-pocket payment model will develop. We intend to initiate the type of clinical studies that will lead to broad third party coverage. We do not expect this coverage to develop in the near term and cannot be sure of our eventual success in obtaining such coverage.

In the United States, some insured individuals are receiving their medical care through managed care programs, which monitor and often require pre-approval of the services that a member will receive. Some managed care programs are paying their providers on a per capita basis, which puts the providers at financial risk for the services provided to their patients by paying these providers a predetermined payment per member per month, and consequently, may limit the willingness of these providers to use our products.

We believe that the overall escalating cost of medical products and services has led to, and will continue to lead to, increased pressures on the healthcare industry to reduce the costs of products and services.

Our success in selling the NC-stat DPNCheck device and ADVANCE System, however, will depend upon, among other things, our customers receiving, and our potential customers expectation that they will receive sufficient reimbursement from third-party payers or directly from patients for performing procedures

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using these products. See *Risk Factors If physicians or other health care providers are unable to obtain sufficient reimbursement from third-party health care payers for procedures performed using our products, the adoption of our products and our future product sales will continue to be materially adversely affected.*

FDA and Other Governmental Regulation

FDA Regulation

Our products are medical devices subject to extensive regulation by the FDA under the Federal Food, Drug, and Cosmetic Act, or FDCA, and the regulations promulgated thereunder, as well as by other regulatory bodies in the United States and abroad. The FDA classifies medical devices into one of three classes on the basis of the amount of risk associated with the medical device and the controls deemed necessary to reasonably ensure their safety and effectiveness:

Class I, requiring general controls, including labeling, device listing, reporting and, for some products, adherence to good manufacturing practices through the FDA s quality system regulations and pre-market notification;
Class II, requiring general controls and special controls, which may include performance standards and post-market surveillance; and
Class III, requiring general controls and pre-market approval, or PMA, which may include post-approval conditions and post-market surveillance.

Before being introduced into the market, our products must obtain market clearance or approval through the 510(k) pre-market notification process, the *de novo* review process or the PMA process, unless they qualify for an exemption from these processes. See *Risk Factors We are subject to extensive regulation by the FDA which could restrict the sales and marketing of ADVANCE and NC-stat DPNCheck, as well as other products for which we may seek FDA clearance or approval, and could cause us to incur significant costs.*

510(k) Pre-Market Notification Process

To obtain 510(k) clearance, we must submit a pre-market notification demonstrating that the proposed device is substantially equivalent to a legally marketed Class I or II medical device or to a Class III device marketed prior to May 28, 1976 for which the FDA has not required the submission of a PMA application. In some cases, we may be required to perform clinical trials to support a claim of substantial equivalence. If clinical trials are required, we must submit an application for an investigational device exemption, or IDE, which must be cleared by the FDA prior to the start of a clinical investigation, unless the device and clinical investigation are considered non-significant risk by the FDA or are exempt from the IDE requirements. It generally takes three months from the date of the pre-market notification submission to obtain a final 510(k) decision, but it can be significantly longer.

After a medical device receives 510(k) clearance, any modification that could significantly affect its safety or effectiveness, or that would constitute a major change in its intended use, requires the submission of a new 510(k) clearance or could require *de novo* classification or PMA. The FDA allows each company to make this determination, but the FDA can review the decision. If the FDA disagrees with a company s decision not to seek FDA authorization, the FDA may require the company to seek 510(k) clearance or PMA. The FDA also can require the company to cease marketing and/or recall the medical device in question until its regulatory status is resolved.

De Novo Review Process

If a previously unclassified new medical device does not qualify for the 510(k) pre-market notification process because there is no predicate device to which it is substantially equivalent, and if the device may be adequately regulated through general controls or special controls, the device may be eligible for *de novo* classification through what is called the *de novo* review process. In order to use the *de novo* review process, a company must receive a letter from the FDA stating that, because the device has been found not substantially equivalent to a legally marketed Class I or II medical device or to a Class III device marketed prior to May 28, 1976 for which the FDA has not required the submission of a PMA application, it has been placed into Class III. After receiving this letter, the company, within 30 days, must submit to the FDA a request for a

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risk based down classification of the device from Class III to Class I or II based on the device s moderate or low risk profile which meets the definition of a Class I or Class II medical device. The FDA then has 60 days in which to decide whether to down classify the device. If the FDA agrees that a lower classification is warranted, it will issue a new regulation describing the device type and, for a Class II device, publish a Special Controls guidance document. The Special Controls guidance document specifies the scope of the device type and the recommendations for submission of subsequent devices for the same intended use. If a product is classified as Class II through the *de novo* review process, then that device may serve as a predicate device for subsequent 510(k) pre-market notifications.

PMA Process

If a medical device does not qualify for the 510(k) pre-market notification process and is not eligible for clearance through the *de novo* review process, a company must submit a PMA application. The PMA requires more extensive pre-filing testing than is required in the 510(k) and is more costly, lengthy and uncertain. The FDA will decide within 45 days of receiving a PMA whether it is sufficiently complete to permit a substantive review and if the PMA is complete, the FDA will notify the applicant that the PMA has been filed. The PMA process can take one to three years or longer, from the time the PMA application is filed with the FDA. The PMA process requires the company to prove that the medical device is safe and effective for its intended purpose. A PMA typically includes extensive pre-clinical and clinical trial data, and information about the device, its design, manufacture, labeling and components. Before approving a PMA, the FDA generally also performs an on-site inspection of manufacturing facilities for the product to ensure compliance with the FDA s quality system regulation, or QSR.

If FDA approves the PMA, the approved indications may be more limited than those originally sought. In addition, FDA s approval order may include post-approval conditions that the FDA believes necessary to ensure the safety and effectiveness of the device, including, among other things, restrictions on labeling, promotion, sale and distribution and post-market study requirements. Failure to comply with the post-approval conditions can result in adverse enforcement or administrative actions, including the withdrawal of the approval. Approval of a new PMA application or a PMA supplement may be required in the event of modifications to the device, including to its labeling, intended use or indication, or its manufacturing process that affect safety and effectiveness.

Post-Approval Obligations

After a device is placed on the market, numerous regulatory requirements continue to apply. These include:

the FDA s QSR, which requires manufacturers, including third-party manufacturers, to follow stringent design, testing, control, documentation and other good manufacturing practice and quality assurance procedures during all aspects of the manufacturing process;
labeling regulations and FDA prohibitions against the promotion of products for uncleared or unapproved uses (known as off-label uses), as well as requirements to provide adequate information on both risks and benefits;
medical device reporting regulations, which require that manufacturers report to FDA any device that may have caused or contributed to a death or serious injury or malfunctioned in a way that would likely cause or contribute to a death or serious injury if the malfunction were to recur;
correction and removal reporting regulations, which require that manufacturers report to the FDA field corrections and device recalls or removals if undertaken to reduce a risk to health posed by the device or to remedy a violation of the FDCA caused by the device which may present a risk to health;
post-market surveillance regulations, which apply to Class II or III devices if the FDA has issued a post-market surveillance order and the failure of the device would be reasonably likely to have serious adverse health consequences, the device is expected to have significant use in the pediatric population, the device is intended to be implanted in the human body for more than one year, or the device is intended to be used to support or sustain life and

to be used outside a user facility;

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regular and for cause inspections by FDA to review a manufacturer s facilities and their compliance with applicable FDA requirements; and

the FDA s recall authority, whereby it can ask, or order, device manufacturers to recall from the market a product that is in violation of applicable laws and regulations.

Regulatory Approvals and Clearances

The ADVANCE System received 510(k) clearance as a Class II medical device in April 2008 for its intended use by physicians to perform nerve conduction studies and needle electromyography procedures.

The NC-stat System is also a Class II medical device and has been the subject of several 510(k) clearances, the most recent in July 2006 (K060584). The NC-stat System is cleared for use to stimulate and measure neuromuscular signals that are useful in diagnosing and evaluating systemic and entrapment neuropathies. We believe our NC-stat DPNCheck device is a technical modification to the 510(k) cleared NC-stat device and has the same intended use, and therefore does not raise safety or effectiveness questions. Under the FDA s published guidance on 510(k) requirements for modified devices, we do not believe that a 510(k) submission is required for NC-stat DPNCheck.

During the fourth quarter of 2006, at the request of the FDA, we submitted a 510(k) relating to portions of our onCall Information System, or onCall, that are currently in use in the NC-stat System. In June 2010 we received a not substantially equivalent, or NSE, determination from the FDA regarding this 510(k) submission. We appealed the decision to the FDA s next level supervisor who upheld the NSE determination. In February 2011 we notified the FDA that we have implemented a program to transition users of NC-stat devices to our 510(k) cleared ADVANCE System that does not use the portions of onCall referenced in the NSE decision. This transition program will be completed by February 2012, after which we will no longer provide NC-stat customers with access to onCall. The NC-stat DPNCheck device does not use those portions of onCall referenced in the NSE decision.

We believe that as a transcutaneous electrical nerve stimulator, the SENSUS pain therapy device is a Class II medical device which will require a 510(k) premarket notification prior to commercial distribution. The FDA has recently issued a draft special controls guidance document for transcutaneous electrical nerve stimulators for pain relief. This document outlines the FDA s expectations with respect to the 510(k) submission, including requirements for bench top and clinical data.

Manufacturing Facilities

Our facility, and the facility utilized by Sunburst, our contract device manufacturer, have each been inspected by FDA in the past, and observations were noted. There were no findings that involved a significant violation of regulatory requirements. The responses to these observations have been accepted by the FDA and we believe that we and our contract manufacturer are in substantial compliance with the QSR. We expect that our facility and the facility utilized by our contract manufacturer will be inspected again as required by the FDA. If the FDA finds significant violations, we or our contract device manufacturer could be subject to fines, recalls, requirements to halt manufacturing, or other administrative or judicial sanctions.

U.S. Anti-Kickback and False Claims Laws

In the United States, the federal Anti-Kickback Statute, as well as numerous state anti-kickback laws, prohibit the offer, payment, solicitation or receipt of kickbacks, bribes or other remuneration, whether direct or indirect, overt or covert, in cash or in kind, intended, among other things, to induce the purchase or recommendation of healthcare products and services. While the federal law applies only to products and services for which payment may be made by a federal healthcare program, the state laws may apply regardless of whether any public healthcare funds are involved.

Violations of these laws can lead to severe civil and criminal penalties, including exclusion from participation in federal healthcare programs. These laws are potentially applicable to manufacturers of medical devices, such as us, and to hospitals, physicians and other potential purchasers of our products.

Also, the federal False Claims Act, as well as many state false claims statutes, provides civil and criminal penalties for presenting, or causing to be presented, to third-party payers for reimbursement, claims that are false or fraudulent, or which are for items or services that were not provided as claimed. Under the federal

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False Claims Act, in addition to actions initiated by federal law enforcement authorities, the statute authorizes qui tam actions to be brought on behalf of the federal government by a private party in certain circumstances and, if successful, that private party can share in any monetary recovery. Any challenge by federal or state enforcement officials or others under these laws, could have a material adverse effect on our business, financial condition, and results of operations.

Legacy Neurodiagnostics Business

We were founded in 1996 as a science-based health care company. Our focus had been the development of innovative products for the detection, diagnosis, and monitoring of peripheral nerve and spinal cord disorders, such as those associated with carpal tunnel syndrome, lumbosacral disc disease and spinal stenosis, and diabetes. Our NC-stat System for the performance of nerve conduction studies at the point-of-care was commercially launched in 1999. The second generation NC-stat was released in 2002. In 2008 we brought to market the more sophisticated ADVANCE System for nerve conduction testing and performance of invasive needle electromyography. These systems were general purpose with broad application in evaluating and diagnosing nerve disorders. Numerous studies demonstrating the clinical accuracy and utility of these devices have been conducted and published in high quality peer-reviewed journals. Furthermore, these devices have been used in FDA sanctioned clinical trials for pharmacological agents and large scale epidemiological studies sponsored by the NIH, Center for Disease Control, or CDC, and other governmental agencies. The products have been cleared by the FDA, field tested for over a decade and highly regarded for their ease of use, accuracy and reproducibility of results.

Following launch of NC-stat in 1999, we experienced rapid revenue growth, which lead to our initial public offering in 2004. The health market, particularly the physician office segment, embraced the opportunity to perform nerve conduction tests which previously had always required referral to specialists. Point-of-care nerve testing was seen to provide a combination of improved patient care and patient convenience. The success of point-of-care nerve testing, a market which we created, was met with resistance in some sectors of the medical community, particularly by neurologists and physical medicine and rehabilitation physicians, both of which had traditionally provided nerve testing services. As a consequence of successful lobbying by these specialists, physicians using our technology experienced increased denials of coverage by third party payers resulting in their discontinuing usage and our difficulty in accruing new customer accounts. In late 2009 CMS included in the Physician Fee Schedule a new Category I CPT Code, CPT 95905, for nerve conduction studies performed using preconfigured electrode such as those employed with our products. During 2010 most Medicare fiscal intermediaries assumed coverage for CPT 95905 for at least some clinical indications; however, the health care environment has been such that we have been unable to secure broad coverage among private payers, which is essential to the success our products. This experience was reflected in our revenues which peaked in 2006 at $55.3 million. We have reported revenue of $31.1 million in 2008, $26.1 million in 2009 and $13.9 million in 2010 and for the nine month period ended September 30, 2011 reported revenue of $8.0 million.

As we managed our general purpose neurodiagnostic business to improve reimbursement and minimize customer erosion, we increasingly became aware of the unmet medical need for improved diagnostic tools and therapies in the specific area of diabetic neuropathy, or nerve damage caused by diabetes. Diabetes care is one of the fasted growing sectors of health care as discussed above. We believe that our tools and therapies for addressing diabetic neuropathy represent a significant market opportunity. Consequently, in January 2011 we announced a shift to diabetes care as our primary business focus. We also restructured our neurodiagnostics business to consolidate functions and to eliminate our direct sales force. We emphasized our commitment to supporting our neurodiagnostic products and installed base of physician accounts. Our objective for our legacy neurodiagnostics business is to maintain a high standard of product support while managing the business to optimize cash flow.

Employees

As of December 31, 2011, we had a total of 58 employees, 55 of which were full-time employees. Of these employees, 15 were in research and development, 31 in sales and marketing, 2 in distribution and 10 in general and administrative services. One employee holds both M.D. and Ph.D. degrees, three additional employees hold a Ph.D. degree, and two additional employees hold an M.D. degree.

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Our employees are not represented by a labor union and are not subject to a collective bargaining agreement. We have never experienced a work stoppage. We believe that we have good relations with our employees.

Properties

Our headquarters is located in an approximately 30,000 square foot facility in Waltham, Massachusetts, which we occupy under an office lease expiring in March 2013. We believe that our existing facilities are adequate for our current needs.

Legal Proceedings

We are not currently a party to any material legal proceedings, but are subject to legal proceedings in the ordinary course of business. We do not expect any such items to have a significant impact on our financial position.

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MANAGEMENT

Executive Officers and Directors

The following table sets forth information regarding our executive officers and directors, including their ages, as of December 31, 2011:

Name	Age	Position
Shai N. Gozani, M.D., Ph.D.	47	Chairman of the Board, Chief Executive Officer, President and Secretary
Thomas T. Higgins	60	Senior Vice President, Chief Financial Officer and Treasurer
Guy Daniello	67	Senior Vice President of Information Technology
Krishnamurthy Balachandran	53	Senior Vice President, Chief Operating Officer, Neurodiagnostics
Michael Williams, Ph.D.	55	Senior Vice President, Chief Technical Officer
David E. Goodman, M.D.[1][2]	55	Director
Allen J. Hinkle, M.D.[2]	61	Director
Nancy E. Katz	52	Director
Charles R. LaMantia[1][3]	72	Director
Timothy R. Surgenor[1][3]	52	Director

(1) Member of Audit Committee

(2) Member of Compensation Committee

(3) Member of Nominating and Corporate Governance Committee

Shai N. Gozani, M.D., Ph.D. founded our company in 1996 and currently serves as Chairman of our Board of Directors and as our President, Chief Executive Officer and Secretary. Since founding our company in 1996, Dr. Gozani has served in a number of positions at our company including Chairman since 1996, President from 1996 to 1998 and from 2002 to the present, Chief Executive Officer since 1997 and Secretary since July 2008. Dr. Gozani holds a B.A. in computer science, an M.S. in Biomedical Engineering and a Ph.D. in Neurobiology, from the University of California, Berkeley. He also received an M.D. from Harvard Medical School and the Harvard-M.I.T. Division of Health Sciences at M.I.T. Prior to forming our company, Dr. Gozani completed a neurophysiology research fellowship in the laboratory of Dr. Gerald Fischbach at Harvard Medical School. Dr. Gozani has published articles in the areas of basic and clinical neurophysiology, biomedical engineering and computational chemistry. The Board has concluded that Dr. Gozani should serve as a director because Dr. Gozani s extensive knowledge of engineering and neurophysiology, combined with the unique understanding of our technology and business he has gained as our founder and as a key executive, provides invaluable insight to our Board and to the entire organization.

Thomas T. Higgins has served as our Senior Vice President, Chief Financial Officer and Treasurer since September 2009. Prior to joining NeuroMetrix, from January 2005 to March 2008, Mr. Higgins was Executive Vice President and Chief Financial Officer at Caliper Life Sciences, Inc, a provider of technology and services for life sciences research. Before Caliper, Mr. Higgins was Executive Vice President, Operations and Chief Financial Officer at V.I. Technologies, Inc. (Vitex), a biotechnology company addressing blood safety. Before Vitex, Mr. Higgins served at Cabot Corporation in various senior finance and operations roles. His last position at Cabot was President of Distrigas of Massachusetts Corporation, a subsidiary involved in the liquefied natural gas business, and prior to that he was

responsible for Cabot s Asia Pacific carbon black operations. Before joining Cabot, Mr. Higgins was with PricewaterhouseCoopers where he started his career. Mr. Higgins holds a BBA with honors from Boston University.

Guy Daniello has served as our Senior Vice President of Information Technology since July 2003 and, prior to that time, as our Vice President of Information Technology and Director of Information Technology since 1998. Prior to joining NeuroMetrix, Mr. Daniello was an independent software consultant, the Senior Vice President of Engineering at Shiva Corporation from 1996 to 1997, and the Chief Technology Officer and Vice President of Product Development at Gandalf Technologies from 1993 to 1996. In 1991 he founded

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Network Architects, a software company. Prior to starting Network Architects, he served as President and Chief Executive Officer of Datamedia Corp. and the Director of Small Systems Development at Honeywell Information Systems. Mr. Daniello holds a B.S. in business administration from Northeastern University.

Krishnamurthy Balachandran has served as our Senior Vice President and General Manager, International since April 2010. In January 2011 he assumed additional responsibilities as Chief Operating Officer, Neurodiagnostics. Prior to joining NeuroMetrix, from November 2007 to April 2010, Mr. Balachandran was Vice President and General Manager of Cardinal Health s NeuroCare Division, a provider of technology and services to the neurophysiology industry. Before joining Cardinal Health, Mr. Balachandran worked at with Hewlett Packard as Senior Director, Global Alliances from April 1999 to December 2006. Prior to joining Hewlett Packard, Mr. Balachandran was Vice President, International Sales and Marketing for Nicolet Biomedical, the leading business in EMG and nerve conduction testing which was subsequently acquired by Cardinal Health and became its NeuroCare division. Mr. Balachandran started his career in sales with Blue Star, Ltd of India. Mr. Balachandran, an electrical engineer from the National Institute of Technology in India, holds an MBA in Marketing from the Indian Institute of Management in Ahmedabad, India.

Michael Williams, Ph.D. has served as our Senior Vice President and Chief Technology Officer since September 2011 and, prior to that time, as our Senior Vice President of Engineering since July 2003 and as Vice President of Engineering since May 2000. From March 1996 to January 2000, Dr. Williams served as Division President at Radionics, where he was responsible for all software-based products, including treatment planning and image-guided surgery. Prior to Radionics, he served as an engineer at Hughes Aircraft Space & Communications Group. Dr. Williams received a B.S. in physics and mathematics from University of Puget Sound and an M.S. and Ph.D. in Physics from Brown University.

David E. Goodman, M.D. has served as a member of our Board of Directors since June 2004. Dr. Goodman currently serves as an independent consultant and practicing physician. During 2010, Dr. Goodman has served as President and Chief Executive Officer of SEDline, Inc., a research-focused company with the mission to expand the scope and applications for neuromonitoring. From 2008 to 2009, Dr. Goodman served as Executive Vice President of Business Development for Masimo Corporation, a manufacturer of non-invasive patient monitors. From 2006 to 2008, Dr. Goodman served as an independent consultant providing product design, regulatory and analytical consulting services to medical device and biopharmaceutical companies and also served in this capacity from 2003 to 2004 and from 2001 to 2002. From 2005 to 2006, Dr. Goodman served as President and Chief Executive Officer of BaroSense, Inc., a medical device company focused on developing minimally invasive devices for the long-term treatment of obesity. From 2004 to 2005, Dr. Goodman served as President and Chief Executive Officer of Interventional Therapeutic Solutions, Inc., an implantable drug delivery systems company. From 2002 to 2003, Dr. Goodman served as Chairman, President and Chief Executive Officer of Pherin Pharmaceuticals, a pharmaceutical discovery and development company. From 1994 to 2001, Dr. Goodman held various positions, including Chief Executive Officer, Chief Medical Officer and director, for LifeMasters Supported SelfCare, Inc., a disease management services company that Dr. Goodman founded. Dr. Goodman also serves as a director of Sound Surgical Technologies LLC, a private manufacturer of aesthetic surgical tools. Dr. Goodman holds a B.A.S. in applied science and bioengineering and a M.S.E. in bioengineering from the University of Pennsylvania. He also received an M.D. from Harvard Medical School and the Harvard-M.I.T. Division of Health Sciences and Technology. The Board has concluded that Dr. Goodman should serve as a director because Dr. Goodman s medical and engineering background and his many years of executive experience in the medical device industry provide important experience and expertise to the Board.

Allen J. Hinkle, M.D. has served as a member of our Board of Directors since January 2006. From December 2010 through the present, Dr. Hinkle has served as the Chief Medical Officer of MVP Health Care, a not-for-profit health insurer. Dr. Hinkle was the Chief Medical Officer and Senior Vice President for Tufts Health Plan in Massachusetts, a

health insurance provider, where he was responsible for medical management programs and initiatives from 2004 to 2009. Prior to becoming the Chief Medical Officer of Tufts Health Plan, Dr. Hinkle was Senior Medical Director and Vice President of Health Care Quality, Policy and Innovations at Blue Cross Blue Shield of Massachusetts, a health insurance provider, from 2001 through September 2004. From 1995 to 2001, Dr. Hinkle was the Chief Medical Officer and Senior Vice President of

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Quality Healthcare Management for Anthem Blue Cross Blue Shield of New Hampshire and Matthew Thornton Plan, health insurance provider organizations. Dr. Hinkle has over 30 years of experience in the healthcare field. Dr. Hinkle received a B.S. from the University of Massachusetts at Amherst and an M.D. from Albert Einstein College of Medicine in New York. He is board certified in pediatrics and anesthesiology and is an Associate Professor of Anesthesiology and Pediatrics at Dartmouth Medical School. He also owns several U.S. patents on medical devices. The Board has concluded that Dr. Hinkle should serve as a director because Dr. Hinkle s years of experience as a physician and in executive positions in the health insurance industry provide the Board with valuable insights in the areas of product development and reimbursement.

Nancy E. Katz has served as a member of our Board of Directors since December 2010. Since May 2011, Ms. Katz has served as Vice President, Consumer Marketing and Market Development at Medtronic, Inc., a medical technology company. From July 2005 to July 2010, Ms. Katz was Senior Vice President, Bayer Diabetes Care North America. Prior to this position, she was President and Chief Executive Officer of Calypte Biomedical Corporation, a manufacturer of HIV diagnostics, President of Zila Pharmaceutical, Inc, a manufacturer of oral care products, and held senior marketing positions with the Lifescan division of Johnson & Johnson (blood glucose diabetes products), Schering-Plough Healthcare Products, and with American Home Products. She has previously served on the Boards of Directors of Neoprobe Corporation (AMEX: NEOP), Calypte Biomedical Corporation, LXN Corporation and Pepgen Corporation. She received a B.S. in business from the University of South Florida. The Board has concluded that Ms. Katz should serve as a director because her experience in diabetes care and marketing into the diabetes sector provides valuable insight to the Board and management in our diabetes strategy.

Charles R. LaMantia has served as a member of our Board of Directors since November 2004. In July 1999, Mr. LaMantia retired from the position of Chief Executive Officer, Chairman and President of Arthur D. Little, Inc, a worldwide professional service company with activities in management consulting, technology and product development, and environmental, health and safety. Mr. LaMantia served as Chief Executive Officer, and President of Arthur D. Little from July 1988 to July 1999. From October 1986 to July 1988, Mr. LaMantia held the position of President and Chief Operating Officer at Arthur D. Little. From 1981 to 1986, Mr. LaMantia served as President and Chief Executive Officer of Koch Process Systems, Inc., an integrated engineering and manufacturing company, owned by Koch Industries. From 1977 to 1981, Mr. LaMantia served as Vice President in charge of Arthur D. Little s Chemical and Metallurgical Engineering business. Mr. LaMantia currently serves on the Board of Directors of State Street Corporation (NYSE: STT). Mr. LaMantia received a B.A., B.S., M.S., and Sc.D. in chemical engineering from Columbia University and completed the Advanced Management Program of Harvard Business School. He was a Sloan Foundation Fellow, a National Science Foundation Fellow, and is a member of Phi Beta Kappa and Tau Beta Pi. He served as an officer in the United States Navy. The Board has concluded that Mr. LaMantia should serve as a director because Mr. LaMantia s extensive corporate leadership experience and public company board experience provides the Board with valuable finance, accounting and executive management experience.

Timothy R. Surgenor has served as a member of our Board of Directors since April 2009. Since April 2009, Mr. Surgenor has been a partner at Red Sky Partners, LLC, a provider of general management consulting services to the biotechnology and medical device industries. From 2003 to 2009, Mr. Surgenor served as President, Chief Executive Officer and director of Cyberkinetics Neurotechnology Systems (OTC: CYKN.PK), a medical device company. From January 1999 to January 2003, Mr. Surgenor was Executive Vice President at Haemonetics Corporation, which is a medical device company. From 1994 to 1999, Mr. Surgenor was President of Genzyme Tissue Repair, the cell therapy division of Genzyme Corporation. Previously, Mr. Surgenor was Executive Vice President and Chief Financial Officer of BioSurface Technology, Inc. and also held various positions in operations at Integrated Genetics. Mr. Surgenor received a B.A. in Biochemistry from Williams College and an M.B.A. from Harvard Business School. The Board has concluded that Mr. Surgenor should serve as a director because Mr. Surgenor s long career in the medical device and biotechnology business as both an entrepreneur and in senior executive positions in public companies

provides the Board with important industry experience as well as valuable finance, accounting and executive management expertise.

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Board Independence

Our Board of Directors has determined that Dr. Goodman, Dr. Hinkle, Mr. LaMantia, Mr. Surgenor, and Ms. Katz are independent directors for purposes of the corporate governance rules contained in the NASDAQ Marketplace Rules, or the NASDAQ rules. In making the independence determination with respect to Mr. Surgenor, our Board of Directors considered Mr. Surgenor s service to the Company as a consultant described below under the heading *Transactions with Related Persons.*

Committee Independence

Our Board of Directors has an Audit Committee currently consisting of Mr. Surgenor, Chairman, and Dr. Goodman and Mr. LaMantia. Dr. Goodman and Messrs. LaMantia and Surgenor are all independent as that term is defined in the rules of the SEC and the applicable NASDAQ Marketplace Rules relating to audit committee membership. Our Board of Directors has determined that Messrs. LaMantia and Surgenor each qualify as audit committee financial experts as such term is defined in the rules of the SEC.

Our Board of Directors has a Compensation Committee consisting of Drs. Goodman and Hinkle. Drs. Goodman and Hinkle are independent directors as that term is defined in the NASDAQ Marketplace Rules.

Our Board of Directors has a Nominating and Corporate Governance Committee consisting of Messrs. LaMantia and Surgenor. Messrs. LaMantia and Surgenor are each independent directors as that term is defined in the NASDAQ Marketplace Rules.

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EXECUTIVE COMPENSATION

Summary of Executive Compensation

The following table sets forth compensation information with respect to services rendered to us in all capacities during the fiscal years ended December 31, 2011 and 2010 for (i) the individual who served as the Chief Executive Officer during the year ended December 31, 2011, (ii) the individual who served as the Chief Financial Officer during the year ended December 31, 2011, and (iii) each of the three other most highly compensated executive officers who were serving as executive officers at December 31, 2011 (we refer to these individuals, collectively, as the named executive officers):

Summary Compensation Table

These amounts represent the aggregate grant date fair value for option and stock awards granted during fiscal years 2011 and 2010, respectively, computed in accordance with FASB ASC Topic 718. The amount of each grant is set
(1) forth below under Discussion of Summary Compensation Table Long-Term Incentive Compensation. A discussion of the assumptions used in determining grant date fair value may be found in Note 3 to our Financial Statements, included in our Annual Report on Form 10-K for the year ended December 31, 2010.

(2) Mr. Balachandran joined us in April 2010.

(3) In connection with Mr. Balachandran joining us, we made an inducement payment of $50,000.

Discussion of Summary Compensation Table

The compensation paid to the named executive officers includes salary, cash incentive compensation, and equity incentive compensation. The terms of employment agreements that we have entered into with our named executive officers are described below under Employment Agreements and Potential Payments upon Termination or Change-in-Control.

Cash Compensation

We pay our executive officers a base salary, which we review and determine annually. In July 2011, we increased the base salary of Dr. Williams from $237,587 to $260,201, an increase of 10%. Base salaries for Dr. Gozani, Mr. Higgins, Mr. Balachandran, and Mr. Daniello remained the same.

Bonus Payments

The established targets for annual bonus payments for each of our executive officers for 2011 were as follows: Dr. Gozani 50% of base salary; Mr. Higgins 40% of base salary; Mr. Balachandran 40% of base salary; Mr. Daniello 30% of base salary; and Dr. Williams 30% of base salary.

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Long-Term Incentive Compensation

We grant long-term equity incentive awards in the form of stock options to executives as part of our total compensation package. On April 2, 2010, we made the following equity grants, comprised of stock options and restricted shares, to our named executive officers under our Third Amended and Restated 2004 Stock Option and Incentive Plan with an exercise price of $1.69 per share: Dr. Gozani 83,750 stock options and 20,625 restricted shares; Mr. Higgins 46,900 stock options and 11,550 restricted shares; Mr. Daniello 33,500 stock options and 8,250 restricted shares; and Dr. Williams 33,500 stock options and 8,250 restricted shares. In addition, upon joining NeuroMetrix in April 2010, Krishnamurthy Balachandran was granted stock options under the 2009 Non-Qualified Inducement Stock Plan (the 2009 Inducement Plan) to purchase 100,000 shares exercisable at $1.77 per share.

On February 1, 2011, we made the following equity grants, comprised of stock options and restricted shares, to our named executive officers under our Third Amended and Restated 2004 Stock Option and Incentive Plan with an exercise price of $3.30 per share: Dr. Gozani 11,167 stock options and 6,875 restricted shares; Mr. Higgins 4,690 stock options and 2,888 restricted shares; Mr. Balachandran 4,690 stock options and 2,888 restricted shares; Mr. Daniello 3,350 stock options and 2,063 restricted shares; and Dr. Williams 3,350 stock options and 2,063 restricted shares. In addition, on the same date, we made the following equity grants, comprised of performance-based stock options, to our named executive officers under our Third Amended and Restated 2004 Stock Option and Incentive Plan with an exercise price of $3.30 per share: Dr. Gozani 16,749 stock options; Mr. Higgins 7,035 stock options; Mr. Balachandran 7,034 stock options; Mr. Daniello 5,025 stock options; and Dr. Williams 5,024 stock options. The performance-based options vest on the achievement of certain revenue-related and cash flow targets. One of these targets was achieved in June 2011 and options in the following amounts immediately vested: Dr. Gozani 5,583 stock options; Mr. Higgins 2,345 stock options; Mr. Balachandran 879 stock options; Mr. Daniello 1,675 stock options; and Dr. Williams 1,884 stock options. Dr. Williams also received a grant of 3,333 stock options on July 25, 2011 in connection with his promotion to Senior Vice President and Chief Technology Officer.

All stock options referred to above have a term of ten years and vest over four years with 25% of the total award vesting after one year and the remainder vesting in equal quarterly installments thereafter. Generally, to the extent vested, each stock option is exercisable during the term of the option while the grantee is employed by us and for a period of three months thereafter, unless such termination is upon death or disability, in which case the grantee may continue to exercise the option for a period of 12 months, or for cause, in which case the option terminates immediately. Vesting of stock options is also subject to acceleration in some certain circumstances in connection with a change-in-control as described below in Employment Agreements and Potential Payments upon Termination or Change-in-Control. The restricted shares granted in 2010 are subject to forfeiture provisions which expire with continuing service to us at the rate of 25% one year following the date of grant and 6.25% quarterly thereafter. The restricted shares granted in 2011 are subject to forfeiture provisions which expire with continuing service to us at the rate of 50% one year following the date of grant and 12.5% quarterly thereafter.

In December 2011, our named executive officers forfeited certain of their outstanding options to purchase common stock. The details of the grants and amounts forfeited are set forth in the section below titled Outstanding Equity Awards at Fiscal Year-End.

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Outstanding Equity Awards at Fiscal Year-End

The table below sets forth information with respect to our named executive officers concerning the outstanding equity awards as of December 31, 2011.

	Option Awards					Stock Awards	
	Number of Securities Underlying Unexercised Options						
	Exercisable (#)	Unexercisable (#)		Option Exercise Price ($)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested ($)
Shai N. Gozani, M.D., Ph.D.			(1)	48.00	6/21/14		
			(2)	57.12	3/27/17		
	5,104	730	(3)	11.94	4/01/18		
			(4)	12.78	6/03/18		
	22,916	10,418	(5)	10.20	2/12/19		
	5,234	8,724	(6)	10.14	4/02/20	2,149 (28)	2,686
	16,749			3.30	2/01/21	6,875 (29)	8,594
		11,167	(7)	3.30	2/01/21		
Thomas T. Higgins			(8)	13.98	9/10/19		
			(9)	10.14	4/02/20	1,203 (28)	1,504
	7,035			3.30	2/01/21	2,888 (29)	3,610
		4,690	(10)	3.30	2/01/21		
Krishnamurthy Balachandran			(11)	10.62	4/19/20		
	7,034			3.30	2/01/21	2,888 (29)	3,610
		4,690	(12)	3.30	2/01/21		
Guy Daniello	625			13.50	10/13/12		
	226			13.50	1/01/13		
			(13)	26.88	6/05/13		
			(14)	180.60	1/04/16		
			(15)	57.12	3/27/17		
	5,103	730	(16)	11.94	4/01/18		
	8,333			12.78	6/03/18		
	5,729	2,605	(17)	10.20	2/12/19		
	2,093	3,490	(18)	10.14	4/02/20	862 (28)	1,077
	5,025			3.30	2/01/21	2,062 (29)	2,578
		3,350	(19)	3.30	2/01/21		
Michael Williams, Ph.D.	379			13.50	1/01/13		
	31			13.50	1/15/12		
	1,875			13.50	9/18/13		
	104			13.50	6/05/13		
			(20)	26.88	6/05/13		
			(21)	180.60	1/04/16		

		(22)	57.12	3/27/17		
5,103	730	(23)	11.94	4/01/18		
8,333			12.78	6/03/18		
5,729	2,605	(24)	10.20	2/12/19		
2,093	3,490	(25)	10.14	4/02/20	862 (28)	1,077
5,024			3.30	2/01/21	2,062 (29)	2,578
	3,350	(26)	3.30	2/01/21		
	3,333	(27)	3.00	7/25/21		

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(1) Reflects the voluntary forfeiture in December 2011 of unexercised options to purchase 62,500 shares of common stock that were granted on June 21, 2004.

(2) Reflects the voluntary forfeiture in December 2011 of unexercised options to purchase 8,400 shares of common stock that were granted on March 27, 2007.

(3) Reflects the unexercised portion of a stock option for 5,834 shares of common stock that was granted on April 1, 2008. The option vests/vested 25% on the first anniversary of the vesting start date and then 1/16th each quarter thereafter until fully vested.

(4) Reflects the voluntary forfeiture in December 2011 of unexercised options to purchase 33,333 shares of common stock that were granted on June 3, 2008.

(5) Reflects the unexercised portion of a stock option for 33,334 shares of common stock that was granted on February 12, 2009. The option vests/vested 25% on the first anniversary of the vesting start date and then 1/16th each quarter thereafter until fully vested.

(6) Reflects the unexercised portion of a stock option for 13,958 shares of common stock that was granted on April 2, 2010. The option vests 25% on the first anniversary of the vesting start date and then 1/16th each quarter thereafter until fully vested.

(7) Reflects the unexercised portion of a stock option for 11,167 shares of common stock that was granted on February 1, 2011. The option vests 25% on the first anniversary of the vesting start date and then 1/16th each quarter thereafter until fully vested.

(8) Reflects the voluntary forfeiture in December 2011 of unexercised options to purchase 16,667 shares of common stock that were granted on September 10, 2009.

(9) Reflects the voluntary forfeiture in December 2011 of unexercised options to purchase 7,817 shares of common stock that were granted on April 2, 2010.

(10) Reflects the unexercised portion of a stock option for 4,690 shares of common stock that was granted on February 1, 2011. The option vests 25% on the first anniversary of the vesting start date and then 1/16th each quarter thereafter until fully vested.

(11) Reflects the voluntary forfeiture in December 2011 of unexercised options to purchase 16,667 shares of common stock that were granted on April 19, 2010.

(12) Reflects the unexercised portion of a stock option for 4,690 shares of common stock that was granted on February 1, 2011. The option vests 25% on the first anniversary of the vesting start date and then 1/16th each quarter thereafter until fully vested.

(13) Reflects the voluntary forfeiture in December 2011 of unexercised options to purchase 208 shares of common stock that were granted on June 5, 2003.

(14) Reflects the voluntary forfeiture in December 2011 of unexercised options to purchase 4,167 shares of common stock that were granted on January 4, 2006.

(15) Reflects the voluntary forfeiture in December 2011 of unexercised options to purchase 6,400 shares of common stock that were granted on March 27, 2007.

(16) Reflects the unexercised portion of a stock option for 5,833 shares of common stock that was granted on April 1, 2008. The option vests/vested 25% on the first anniversary of the vesting start date and then 1/16th each quarter thereafter until fully vested.

(17) Reflects the unexercised portion of a stock option for 8,334 shares of common stock that was granted on February 12, 2009. The option vests/vested 25% on the first, second, third and fourth anniversaries of the vesting start date.

(18) Reflects the unexercised portion of a stock option for 5,583 shares of common stock that was granted on April 2, 2010. The option vests 25% on the first anniversary of the vesting start date and then 1/16th each quarter thereafter until fully vested.

(19) Reflects the unexercised portion of a stock option for 3,350 shares of common stock that was granted on February 1, 2011. The option vests 25% on the first anniversary of the vesting start date and then 1/16th each quarter thereafter until fully vested.

(20) Reflects the voluntary forfeiture in December 2011 of unexercised options to purchase 313 shares of common stock that were granted on June 5, 2003.

(21) Reflects the voluntary forfeiture in December 2011 of unexercised options to purchase 4,167 shares of common stock that were granted on January 4, 2006.

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(22) Reflects the voluntary forfeiture in December 2011 of unexercised options to purchase 6,400 shares of common stock that were granted on March 27, 2007.

(23) Reflects the unexercised portion of a stock option for 5,833 shares of common stock that was granted on April 1, 2008. The option vests/vested 25% on the first anniversary of the vesting start date and then 1/16th each quarter thereafter until fully vested.

(24) Reflects the unexercised portion of a stock option for 8,334 shares of common stock that was granted on February 12, 2009. The option vests/vested 25% on the first anniversary of the vesting start date and then 1/16th each quarter thereafter until fully vested.

(25) Reflects the unexercised portion of a stock option for 5,583 shares of common stock that was granted on February 12, 2009. The option vests 25% on the first anniversary of the vesting start date and then 1/16th each quarter thereafter until fully vested.

(26) Reflects the unexercised portion of a stock option for 3,350 shares of common stock that was granted on February 1, 2011. The option vests 25% on the first anniversary of the vesting start date and then 1/16th each quarter thereafter until fully vested.

(27) Reflects the unexercised portion of a stock option for 3,333 shares of common stock that was granted on July 25, 2011. The option vests 25% on the first anniversary of the vesting start date and then 1/16th each quarter thereafter until fully vested.

(28) Reflects the unvested portion of a restricted stock grant for the indicated number of shares of common stock that was granted on April 2, 2010. The restricted shares vest 25% on the first anniversary of the vesting start date and then 1/16th each quarter thereafter until fully vested.

(29) Reflects the unvested portion of a restricted stock grant for the indicated number of shares of common stock that was granted on February 1, 2011. The restricted shares vest 50% on the first anniversary of the vesting start date and then 1/8th each quarter thereafter until fully vested.

Employment Agreements and Potential Payments upon Termination or Change-in-Control

Shai N. Gozani, M.D., Ph.D.

We entered into an employment agreement with Dr. Gozani, effective as of June 21, 2004 and amended on December 31, 2008. Under the terms of the employment agreement, Dr. Gozani is to be paid an annual base salary determined by the Compensation Committee but not less than $250,000. Dr. Gozani s salary for 2011 was $375,000. Dr. Gozani is also eligible to receive an annual cash performance bonus of up to 50% of his annual salary if certain performance objectives, determined by Dr. Gozani and our Compensation Committee, are met.

The employment agreement may be terminated by us with or without cause or by Dr. Gozani. Under the terms of the employment agreement, if (1) we terminate Dr. Gozani for any reason other than willful non-performance of his duties under the employment agreement, intentional fraud or dishonesty with respect to our business or conviction of a felony, which we refer to as a termination without cause, or (2) Dr. Gozani resigns as a result of a reduction in his responsibilities with us, reduction in his status with us, reduction of his salary, relocation of our corporate offices more than 35 miles from their current location or breach by us of the employment agreement, which we refer to as a termination for good reason, Dr. Gozani will be entitled to his full base salary at his then-current annual rate of pay, plus benefits and applicable bonus payments, through the date of his termination. In addition, in the event of such a termination, we will continue to pay Dr. Gozani his then-current annual base salary for one year following the termination. Additionally, Dr. Gozani will be entitled to his full annual cash performance bonus in the year that any of the following transactions occurs:

a sale of substantially all of our assets;

a merger or combination with another entity, unless the merger or combination does not result in a change in ownership of our voting securities of more than 50%; or

the sale or transfer of more than 50% of our voting securities.

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Thomas T. Higgins

We entered into a letter agreement with Mr. Higgins effective September 2, 2009, which provides for our employment of Mr. Higgins as our Senior Vice President, Chief Financial Officer and Treasurer, on an at-will basis. Under the letter agreement, Mr. Higgins annual salary was set at $275,000, subject to periodic review and adjustment at our discretion. Mr. Higgins annual salary for 2011 was $275,000. Under the letter agreement, Mr. Higgins is also eligible to receive an annual cash performance bonus of up to 40% of his annual salary.

Under the terms of the letter agreement, if (1) we terminate Mr. Higgins' employment without cause or (2) Mr. Higgins resigns as a result of our material breach of the terms of the letter agreement, which we refer to as a termination for good reason, then Mr. Higgins will be entitled to receive his base salary and continuation of health benefits for a period of nine months from the date of such termination of Mr. Higgins, subject to Mr. Higgins executing a release agreement with us. Additionally, in the event of a termination of Mr. Higgins without cause or for good reason, Mr. Higgins will be entitled to the acceleration of nine months of vesting under any option grants made subsequent to the date of his letter agreement.

Krishnamurthy Balachandran

We entered into a letter agreement with Mr. Balachandran effective April 19, 2010, which provided for our employment of Mr. Balachandran as our Senior Vice President and General Manager International, on an at-will basis. In January 2011, he assumed additional responsibilities as our Chief Operating Officer, Neurodiagnostics. Under the letter agreement, Mr. Balachandran s annual salary was set at $275,000, subject to periodic review and adjustment at our discretion. The letter agreement also provided that Mr. Balachandran was entitled to an inducement payment of $50,000 for joining us. Such amount was subject to forfeiture in the event Mr. Balachandran left employment with us within one year of his start date. This forfeiture provision has since lapsed. Mr. Balachandran s annual salary for 2011 was $275,000. Under the letter agreement, Mr. Balachandran is also eligible to receive an annual cash performance bonus of up to 40% of his annual salary.

Under the terms of the letter agreement, if (1) we terminate Mr. Balachandran's employment without cause or (2) Mr. Balachandran resigns as a result of our material breach of the terms of the letter agreement, which we refer to as a termination for good reason, then Mr. Balachandran will be entitled to receive his base salary and continuation of health benefits for a period of nine months from the date of such termination of Mr. Balachandran s employment, subject to Mr. Balachandran executing a release agreement with us. Additionally, in the event of a termination of Mr. Balachandran without cause or for good reason, Mr. Balachandran will be entitled to the acceleration of nine months of vesting under any option grants made subsequent to the date of his letter agreement.

Guy Daniello

We entered into a letter agreement with Mr. Daniello effective February 5, 2008 and amended on December 31, 2008, which provides for our employment of Mr. Daniello as our Senior Vice President of Information Technology, on an at-will basis. Under the letter agreement, Mr. Daniello s annual salary was set at $199,690, subject to periodic review and adjustment at our discretion. Mr. Daniello s annual salary for 2011 was $239,532. Under the letter agreement, Mr. Daniello is also eligible to receive an annual cash performance bonus of up to 25% of his annual salary.

Under the terms of the letter agreement, if (1) we terminate Mr. Daniello's employment without cause or (2) Mr. Daniello resigns as a result of our material breach of the terms of the letter agreement, which we refer to as a termination for good reason, then Mr. Daniello will be entitled to receive his base salary and continuation of health benefits for a period of nine months from the date of such termination of Mr. Daniello, subject to Mr. Daniello

executing a release agreement with us. Additionally, in the event of a termination of Mr. Daniello without cause or for good reason, Mr. Daniello will be entitled to the acceleration of nine months of vesting under any option grants made subsequent to the date of his letter agreement.

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Michael Williams, Ph.D.

We entered into a letter agreement with Dr. Williams effective February 5, 2008 and amended on December 31, 2008, which provides for our employment of Dr. Williams as our Senior Vice President of Engineering, on an at-will basis. Dr. Williams now serves as our Senior Vice President and Chief Technology Officer. Under the letter agreement, Dr. Williams annual salary was set at $208,373, subject to periodic review and adjustment at our discretion. Dr. Williams annual salary for 2011was initially set at $246,409, and was subsequently increased to $260,201, effective July 26, 2011, in connection with his appointment as Chief Technology Officer. Under the letter agreement, Dr. Williams is also eligible to receive an annual cash performance bonus of up to 25% of his annual salary.

Under the terms of the letter agreement, if (1) we terminate Dr. Williams employment without cause or (2) Dr. Williams resigns as a result of our material breach of the terms of the letter agreement, which we refer to as a termination for good reason, then Dr. Williams will be entitled to receive his base salary and continuation of health benefits for a period of nine months from the date of such termination of Dr. Williams, subject to Dr. Williams executing a release agreement with us. Additionally, in the event of a termination of Dr. Williams without cause or for good reason, Dr. Williams will be entitled to the acceleration of nine months of vesting under any option grants made subsequent to the date of his letter agreement.

Confidentiality and Non-Competition Agreements

Dr. Gozani, Mr. Higgins, Mr. Balachandran, Mr. Daniello, and Dr. Williams have each entered into a confidentiality and non-competition agreement with us, which provides for protection of our confidential information, assignment to us of intellectual property developed by the executive officer and non-compete and non-solicitation obligations that are effective during, and for 12 months following termination of, the executive officer s employment.

Stock Option and Incentive Plan

Under our Third Amended and Restated 2004 Stock Option and Incentive Plan, or the 2004 stock plan, in the event of a merger, sale or dissolution of our company, or a similar sale event, all outstanding awards under our 2004 stock plan, unless otherwise provided for in a particular award, will terminate unless the parties to the transaction, in their discretion, provide for assumption, continuation or appropriate substitutions or adjustments of these awards. In the event that the outstanding awards under our 2004 stock plan terminate in connection with a sale event, all stock options and stock appreciation rights granted under our 2004 stock plan will automatically become fully exercisable and all other awards granted under our 2004 stock plan will become fully vested and non-forfeitable as of the effective time of the sale event.

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DIRECTOR COMPENSATION

The non-employee members of our Board of Directors receive annual cash compensation in the amount of $10,000 for service as a member of our Board of Directors, which is paid following each annual meeting of our stockholders. In addition, these non-employee directors receive the sum of $1,500 for each board or committee meeting that they attend, provided that they are not entitled to additional compensation for attending committee meetings that occur on the same day as a board meeting at which they attend. This cash compensation will be in addition to any stock options or other equity compensation that we determine to grant to our directors on a case by case basis. Dr. Gozani, the only member of our Board of Directors who is also an employee, is not separately compensated for his service on our Board of Directors.

In addition to the compensation described above, we also reimburse all non-employee directors for their reasonable out-of-pocket expenses incurred in attending meetings of our Board of Directors or any committees thereof.

The following table shows compensation information with respect to services rendered to us in all capacities during the fiscal year ended December 31, 2011 for each non-employee member of the Board of Directors.

Director Compensation Table 2011

Name	Fees Earned or Paid in Cash ($)	Option Awards ($)[1]	Total Compensation ($)
David E. Goodman, M.D.	25,000	1,616 [2]	26,616
Allen J. Hinkle, M.D.	20,500	1,616 [3]	22,116
Nancy E. Katz	19,000	1,616 [4]	20,616
Charles R. LaMantia	23,500	1,616 [5]	25,116
Timothy R. Surgenor	28,500	1,616 [6]	30,116

(1) These amounts represent the aggregate grant date fair value for option awards to purchase 833 shares of common stock granted to each director during fiscal year 2011, computed in accordance with FASB ASC Topic 718. A discussion of the assumptions used in determining grant date fair value may be found in Note 3 to our Financial Statements, included in our Annual Report on Form 10-K for the year ended December 31, 2010, which is incorporated herein by reference.

(2) As of December 31, 2011, Dr. Goodman held options to purchase 10,999 shares of common stock, 8,603 of which were vested.

(3) As of December 31, 2011, Dr. Hinkle held options to purchase 11,833 shares of common stock, 9,437 of which were vested.

(4) As of December 31, 2011, Ms. Katz held options to purchase 5,833 shares of common stock, 1,250 of which were vested.

(5) As of December 31, 2011, Mr. LaMantia held options to purchase 11,000 shares of common stock, 8,604 of which were vested.

(6) As of December 31, 2011, Mr. Surgenor held options to purchase 5,833 shares of common stock, 3,125 of which were vested.

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PRINCIPAL STOCKHOLDERS

The following table sets forth certain information concerning beneficial ownership as of December 31, 2011, except as noted below, of our common stock by:

each of our directors;
each of our named executive officers;
all of our directors and executive officers as a group; and
each stockholder known by us to beneficially own more than five percent of our common stock.

The number of common shares beneficially owned by each stockholder is determined under rules issued by the SEC regarding the beneficial ownership of securities. This information is not necessarily indicative of beneficial ownership for any other purpose. Under these rules, beneficial ownership of common stock includes (1) any shares as to which the person or entity has sole or shared voting power or investment power and (2) any shares as to which the person or entity has the right to acquire beneficial ownership within 60 days after December 31, 2011, including any shares that could be purchased by the exercise of options or warrants on or within 60 days after December 31, 2011. Each stockholder s percentage ownership prior to this offering is based on 3,904,320 shares of our common stock outstanding as of December 31, 2011 plus the number of shares of common stock that may be acquired by such stockholder upon exercise of options or warrants that are exercisable on or within 60 days after December 31, 2011. Each stockholder s percentage ownership after this offering is based on 14,404,320 shares of our common stock being outstanding after this offering, which reflects the issuance of up to 10,500,000 shares of our common stock in this offering, plus the number of shares of common stock that may be acquired by such stockholder upon exercise of options or warrants that are exercisable within 60 days after December 31, 2011.

Unless otherwise indicated below, to our knowledge, all persons named in the table have sole voting and investment power with respect to their shares of common stock, except to the extent authority is shared by spouses under community property laws.

Name and Address[1] of Beneficial Owner	Amount and Nature of Beneficial Ownership			Percent Ownership Prior to the Offering	Percent Ownership After the Offering
	Common Stock	Options[2]	Total		
Directors and Executive Officers					
Shai N. Gozani, M.D., Ph.D.	156,089	56,114	212,203	5.4 %	1.5 %
David E. Goodman, M.D.		9,124	9,124	*	*
Allen Hinkle, M.D.		9,958	9,958	*	*
Nancy E. Katz		1,458	1,458	*	*
Charles R. LaMantia		9,125	9,125	*	*
Timothy R. Surgenor		3,645	3,645	*	*
Krishnamurthy Balachandran	4,554	8,206	12,760	*	*
Guy Daniello	5,192	29,206	34,398	*	*
Thomas T. Higgins	5,575	8,207	13,782	*	*
Michael Williams, Ph.D.	4,980	30,712	35,692	*	*
All Current Directors and Executive Officers as a group (10 persons)	176,390	165,755	342,145	8.4 %	2.3 %

Name and Address[1] of Beneficial Owner	Amount and Nature of Beneficial Ownership			Percent Ownership Prior to the Offering	Percent Ownership After the Offering
	Common Stock	Warrants[2]	Total		
Beneficial Owner of 5% or More of Our Common Stock					
Delphi Ventures VIII, L.P. and related persons[3]	314,650	298,919	613,569	14.6 %	4.2 %
Growth Equity Opportunities Fund, LLC and related persons[4]	314,651	298,919	613,570	14.6	4.2

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* Represents less than 1% of the outstanding shares of common stock.

(1) Unless otherwise indicated, the address of each stockholder is c/o NeuroMetrix, Inc., 62 Fourth Avenue, Waltham, Massachusetts 02451.

(2) Includes all options that are exercisable on or within 60 days from December 31, 2011 by the beneficial owner, except as otherwise noted.

(3) This information is based solely on Schedule 13G filed on September 18, 2009 by Delphi Ventures VIII, L.P. (DV VIII) and related persons. Includes 311,608 shares of common stock and warrants, which are exercisable within 60 days of December 31, 2011, to purchase 296,028 shares of common stock held by DV VIII and 3,042 shares of common stock and warrants, which are exercisable within 60 days of December 31, 2011, to purchase 2,891 shares of common stock held by Delphi BioInvestments VII, L.P. (DBI VIII). DV VIII, DBI VIII and Delphi Management Partners VIII, L.L.C. (DMP VIII), which is the general partner of both DV VIII and DBI VIII, and James J. Bochnowski (Bochnowski), David L. Douglass (Douglass), John F. Maroney (Maroney), Douglas A. Roeder (Roeder) and Deepika R. Pakianathan, Ph.D. (Pakianathan), the managing members of DMP VIII, all may be deemed to shared voting power and dispositive power over the shares of common stock and warrants held by DV VIII and DBI VIII. Additionally, as the general partner of both DV VIII and DBI VIII, DMP VIII may be deemed to have sole voting power and dispositive power over the shares of common stock and warrants held by DV VIII and DBI VIII. DMP VIII and its managing members, Bochnowski, Douglass, Roeder, and Pakianathan disclaim beneficial ownership of the reported securities held by DV VIII and DBI VIII except to the extent of any pecuniary interest therein. The address for DV VIII and related persons is c/o Delphi Ventures, 3000 Sand Hill Road, #1-135, Menlo Park, CA 94025.

(4) This information is based solely on Schedule 13G filed on January 15, 2010 by Growth Equity Opportunities Fund, LLC (GEO) and related persons. Includes 314,651 shares of common stock and warrants, which are exercisable within 60 days of December 31, 2011, to purchase 298,919 shares of common stock held by GEO. GEO, New Enterprise Associates 12, Limited Partnership (NEA 12), which is the sole member of GEO, NEA Partners 12, Limited Partnership (NEA Partners 12), which is the general partner of NEA 12, NEA 12 GP, LLC (NEA 12 GP), which is the general partner of NEA Partners 12, all share voting power and dispositive power over the shares of common stock and warrants held by GEO. Additionally, the individual managers of NEA 12 GP are Michael James Barrett (Barrett), Peter J. Barris (Barris), Forest Baskett (Baskett), Ryan D. Drant (Drant), Patrick J. Kerins (Kerins), Krishna S. Kolluri (Kolluri), C. Richard Kramlich (Kramlich), Charles M. Linehan (Linehan), Charles Newhall III (Newhall), Mark W. Perry (Perry), Scott D. Sandell (Sandell) and Eugene A. Trainor III (Trainor) (collectively, the Managers), and also share voting power and dispositive power over the shares of common stock and warrants held by GEO. Each reporting person set forth above disclaims beneficial ownership of such shares of common stock except for the shares, if any, such reporting person holds of record. The address of GEO, NEA 12, NEA Partners 12, NEA 12 GP, Newhall and Trainor is New Enterprise Associates, 1954 Greenspring Drive, Suite 600, Timonium, MD 21093. The address of Baskett, Kolluri, Kramlich, Linehan, Perry and Sandell is New Enterprise Associates, 2855 Sand Hill Road, Menlo Park, California 94025. The address of the principal business office of Barrett, Barris, Drant and Kerins is New Enterprise Associates, 5425 Wisconsin Avenue, Suite 800, Chevy Chase, MD 20815.

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TRANSACTIONS WITH RELATED PERSONS

Since January 1, 2009, we have engaged in the following transaction with our directors, executive officers and holders of more than 5% of our voting securities, which we refer to as our principal stockholders, and affiliates or immediate family members of our directors, executive officers and principal stockholders. We believe that this transaction was on terms as favorable as could have been obtained from unrelated third parties.

Mr. Surgenor joined our Board of Directors in April 2009. During 2009 we paid Red Sky Partners, LLC, or Red Sky, a total of $49,000 for various consulting services related to the technology we had acquired from Cyberkinetics. Mr. Surgenor is a partner in Red Sky. Red Sky has provided no services to us since 2009 and we have made no payments to Red Sky since 2009.

Pursuant to our audit committee charter currently in effect, the audit committee is responsible for reviewing and approving, prior to our entry into any such transaction, all transactions in which we are a participant and in which any parties related to us has or will have a direct or indirect material interest.

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DESCRIPTION OF SECURITIES

The following description of our securities is intended as a summary only and is qualified in its entirety by reference to our amended and restated certificate of incorporation and amended and restated bylaws, which are filed as exhibits to the registration statement of which the prospectus forms a part, and to the applicable provisions of the Delaware General Corporation Law. We refer in this section to our amended and restated certificate of incorporation as our certificate of incorporation, and we refer to our amended and restated bylaws as our bylaws.

Our authorized capital stock consists of 50,000,000 shares of common stock, $0.0001 par value per share, and 5,000,000 shares of preferred stock, par value $0.001 per share, in one or more series. Of such preferred stock, 25,000 shares have been designated as Series A Junior Participating Cumulative Preferred Stock, par value $0.001 per share. As of December 31, 2011, we had outstanding 3,904,320 shares of our common stock and no shares of our preferred stock. At that date, we also had an aggregate of 338,597 shares of common stock reserved for issuance upon exercise of outstanding stock options granted under our stock incentive plans, and an aggregate of 1,430,480 shares of common stock reserved for issuance upon the exercise of outstanding warrants to purchase common stock.

Common Stock

The holders of our common stock are generally entitled to one vote for each share held on all matters submitted to a vote of the stockholders and do not have any cumulative voting rights. Except as may be required by law and in connection with some significant actions, such as mergers, consolidations, or amendments to our certificate of incorporation that affect the rights of stockholders, holders of our common stock vote together as a single class. There is no cumulative voting in the election of our directors, which means that, subject to any rights to elect directors that are granted to the holders of any class or series of preferred stock, a plurality of the votes cast at a meeting of stockholders at which a quorum is present is sufficient to elect a director. Holders of our common stock are entitled to receive proportionally any dividends declared by our Board of Directors, subject to any preferential dividend rights of outstanding preferred stock.

Subject to the preferential rights of any other class or series of stock, all shares of our common stock have equal dividend, distribution, liquidation and other rights, and have no preference, appraisal or exchange rights, except for any appraisal rights provided by Delaware law. Furthermore, holders of our common stock have no conversion, sinking fund or redemption rights, or preemptive rights to subscribe for any of our securities. Our certificate of incorporation and bylaws do not restrict the ability of a holder of our common stock to transfer his or her shares of our common stock.

In the event of our liquidation or dissolution, holders of our common stock are entitled to share ratably in all assets remaining after payment of all debts and other liabilities, subject to the prior rights of any outstanding preferred stock. Holders of our common stock have no preemptive, subscription, redemption or conversion rights. All shares of our common stock will, when issued, be duly authorized, fully paid and nonassessable. The shares to be issued by us in this offering, and the shares to be issued by us upon exercise of the warrants to be issued in this offering in accordance with the terms of the warrants, will be when issued and paid for, validly issued, fully paid and nonassessable.

Preferred Stock

Pursuant to our certificate of incorporation, we are authorized to issue blank check preferred stock, which may be issued from time to time in one or more series upon authorization by our Board of Directors. Our Board of Directors,

without further approval of the stockholders, is authorized to fix the designations, powers, including voting powers, preferences and the relative, participating, optional or other special rights of the shares of each series and any qualifications, limitations and restrictions thereof. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes could, among other things, adversely affect the voting power or other rights of the holders of our common stock and, under certain circumstances, make it more difficult for a third party to gain control of us, discourage bids for our common stock at a premium or otherwise adversely affect the market price of the common stock.

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Unit Warrants Sold in this Offering

In connection with this offering, we will issue warrants to purchase up to 5,250,000 shares of our common stock (not including the placement agent warrants). Each warrant entitles the holder to purchase at any time during the period commencing 180 days after the date of this offering until the date five years following the closing date of the offering, one half of a share of our common stock at an exercise price of $1.15 (115% of the aggregate offering price for a unit).

The unit warrants will not be listed on the NASDAQ Capital Market or any other securities exchange. The warrant holders do not have the rights or privileges of holders of common stock and any voting rights until they exercise their unit warrants and receive shares of common stock.

If the registration statement covering the shares issuable upon exercise of the warrants contained in the units is not effective at the time of exercise of the warrants, the unit warrants may only be exercised on a cashless basis and will be issued with appropriate restrictive legends unless such shares are eligible for resale without restriction under the Securities Act.

We are not required to issue fractional shares upon the exercise of the unit warrants. Instead, we may choose to purchase the fraction for an amount in cash equal to the current value of the fraction computed on the basis of the closing market price of a share of our common stock on the NASDAQ Capital Market on the trading day immediately preceding the exercise date of the unit warrant.

We will attempt to maintain the effectiveness of a current prospectus covering the common stock issuable upon exercise of the warrants until the expiration of the warrants. However, we cannot assure you that we will be able to do so. If the prospectus relating to the common stock issuable upon the exercise of the warrants is not current or if the common stock is not qualified or exempt from qualification in the jurisdictions in which the holders of the warrants reside, the warrants may have no value.

The exercise price and the number of shares of common stock issuable upon the exercise of each unit warrant are subject to adjustment upon the happening of certain events, such as recapitalizations, reorganizations, mergers or consolidations.

The unit warrants provide that no exercise will be effected, and the holder of a unit warrant will not have the right to exercise a warrant, if after giving effect to the exercise the holder, together with any affiliates, would beneficially own in excess of 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the issuance of shares upon exercise of such unit warrant. For warrant holders owning in excess of 9.99% of our common stock immediately prior to the issuance of the unit warrants, the exercise limit is increased to 14.99% of our total shares outstanding.

The unit warrants are subject to the terms and conditions of the warrant agent agreement between the Company and American Stock Transfer & Trust Company, LLC, who will serve as the warrant agent. The unit warrants are expected to be issued in book entry form, deposited with the Depository Trust Company and registered in the name of Cede & Co., a nominee of Depository Trust Company. If the warrants cannot be issued in book entry form, then the warrant agent will issue a unit warrant in physical form.

Warrants Outstanding

As of December 31, 2011, we had warrants outstanding to purchase 1,430,480 shares of our common stock that were issued in a private placement transaction on September 8, 2009. The warrants became exercisable on March 8, 2010 for a period of 4.5 years. The warrants have an exercise price of $13.20 per share. The warrants contain certain limitations that prevent the holder of any warrants from acquiring shares upon exercise of a warrant that would result in the number of shares beneficially owned by it and its affiliates to exceed 19.99% of the total number of shares of our common stock then issued and outstanding (with a separate threshold of 9.99% of the total number of shares outstanding for any shareholder who has not exceeded that threshold as of the date of closing). The holder has the right to net exercise any outstanding warrants for shares of our common stock. In addition, upon certain changes in control of the Company, the holder can elect to receive, subject to certain limitations and assumptions, consideration equal to the Black-Scholes value of the outstanding warrants.

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Shareholder Rights Plan

On March 7, 2007, we entered into a Rights Agreement with American Stock Transfer & Trust Company, as rights agent, and approved the declaration of a dividend distribution of one preferred share purchase right on each outstanding share of our common stock to shareholders of record as of the close of business on March 8, 2007. Each right entitles the registered holder to purchase from us one ten-thousandth of a share of our Series A Junior Convertible Preferred Stock at a price of $75.00, subject to adjustment.

Initially, the rights are not exercisable and are attached to and trade with all shares of common stock outstanding as of, and issued subsequent to March 8, 2007. The rights will separate from the common stock and will become exercisable upon the earlier of (i) the close of business on the tenth calendar day following the first public announcement that a person or group of affiliated or associated persons, or an Acquiring Person, has acquired beneficial ownership of 15% or more of the outstanding shares of common stock, other than as a result of repurchases of stock by the Company or certain inadvertent actions by a shareholder or (ii) the close of business on the tenth business day (or such later day as our Board of Directors may determine) following the commencement of a tender offer or exchange offer that could result upon its consummation in a person or group becoming the beneficial owner of 15% or more of the outstanding shares of common stock.

The rights may be redeemed in whole, but not in part, at a price of $0.01 per right (payable in cash, common stock or other consideration deemed appropriate by our board) by the board only until the earlier of (i) the time at which any person becomes an Acquiring Person or (ii) the expiration date of the Rights Agreement. Immediately upon the action of the board ordering redemption of the rights, the rights will terminate and thereafter the only right of the holders of rights will be to receive the redemption price.

The rights will expire on March 8, 2017, unless previously redeemed or exchanged by the Company. The rights distribution was not taxable to stockholders.

Certain Effects of Authorized but Unissued Stock

We have shares of common stock and preferred stock available for future issuance without stockholder approval. We may issue these additional shares for a variety of corporate purposes, including future public offerings to raise additional capital or facilitate corporate acquisitions or for payment as a dividend on our capital stock. The existence of unissued and unreserved common stock and preferred stock may enable our Board of Directors to issue shares to persons friendly to current management or to issue preferred stock with terms that could render more difficult or discourage a third-party attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise, thereby protecting the continuity of our management. In addition, if we issue preferred stock, the issuance could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation.

Delaware Law and Certificate of Incorporation and Bylaws Provisions

Board of Directors. Our certificate of incorporation provides that:

our Board of Directors is divided into three classes, as nearly equal in number as possible, to serve staggered terms so that approximately one-third of our board will be elected each year;

subject to the rights of the holders of any class or series of preferred stock then outstanding, our directors may be removed (i) only with cause and (ii) only by the affirmative vote of the holders of at least seventy-five percent (75%) of the voting power of all of the then outstanding shares then entitled to vote at an election of directors voting together as a single class, unless otherwise specified by law; and

any vacancy on our Board of Directors, however occurring, including a vacancy resulting from an enlargement of the board, may only be filled by vote of a majority of the directors then in office, even if less than a quorum, or by a sole remaining director, and not by the stockholders.

These provisions could discourage, delay or prevent a change in control of our company or an acquisition of our company at a price which many stockholders may find attractive. The existence of these provisions

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could limit the price that investors might be willing to pay in the future for shares of our common stock. These provisions may also have the effect of discouraging a third party from initiating a proxy contest, making a tender offer or attempting to change the composition or policies of our Board of Directors.

Stockholder Action; Special Meeting of Stockholders. Our certificate of incorporation and bylaws also provide that:

stockholder action may be taken only at a duly called and convened annual or special meeting of stockholders and then only if properly brought before the meeting;

stockholder action may not be taken by written action in lieu of a meeting;

special meetings of stockholders may be called only by our Board of Directors pursuant to a resolution approved by the affirmative vote of a majority of the directors then in office; and

in order for any matter to be considered properly brought before a meeting, a stockholder must comply with requirements regarding specified information and advance notice to us.

These provisions could delay, until the next stockholders meeting, actions which are favored by the holders of a majority of our outstanding voting securities. These provisions may also discourage another person or entity from making a tender offer for our common stock, because a person or entity, even if it acquired a majority of our outstanding voting securities, would be able to take action as a stockholder only at a duly called stockholders meeting, and not by written consent.

Liability Limitations and Indemnification

Our certificate of incorporation provides that no director of our company shall be personally liable for any monetary damages for any breach of fiduciary duty as a director, except for liability (i) for any breach of the director s duty of loyalty to the company or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the General Corporation Law of the State of Delaware, or (iv) for any transaction from which the director derived an improper personal benefit. Our certificate of incorporation also provides that if the General Corporation Law of the State of Delaware is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of our company shall be eliminated or limited to the fullest extent permitted by the General Corporation Law of the State of Delaware, as so amended. The certificate of incorporation further provides that no amendment to or repeal of these provisions shall apply to or have any effect on the liability or alleged liability of any director for or with respect to any acts or omissions of such director occurring prior to such amendment or repeal. Our certificate of incorporation further provides for the indemnification of our directors and officers to the fullest extent permitted by Section 145 of the Delaware General Corporation Law, including circumstances in which indemnification is otherwise discretionary.

The NASDAQ Capital Market Listing

Our common stock is listed on the NASDAQ Capital Market under the trading symbol NURO.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC.

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PLAN OF DISTRIBUTION

We are offering up to 10,500,000 units, each consisting of one share of common stock and one warrant to purchase one half of a share of common stock at an offering price of $1.00 per unit. Pursuant to an engagement letter agreement, we engaged Dawson James Securities, Inc. as our placement agent for this offering. Dawson James is not purchasing or selling any units, nor are they required to arrange for the purchase and sale of any specific number or dollar amount of units, other than to use their best efforts to arrange for the sale of units by us. Therefore, we may not sell the entire amount of units being offered.

Upon signing the engagement letter agreement, we paid Dawson James Securities, Inc. a due diligence fee of $25,000 (which will be reimbursable to the Company to the extent it is not actually incurred). We will reimburse Dawson James Securities, Inc. for its legal expenses incurred in connection with this offering, which together with the due diligence fee, will not exceed $50,000. Upon the closing of this offering, we will pay the placement agent a cash transaction fee equal to six percent (6%) of the gross proceeds to us from the sale of the units in the offering. We are not obligated to pay the placement agent a fee upon exercise of the warrants included in the units. Upon the closing of the offering, we will also pay the placement agent a non-accountable expense allowance of two percent (2%) of the gross proceeds to us from the sale of units in the offering.

In addition, we agreed to grant a five-year (from the effective date of the registration statement related to the offering) compensation warrant to the placement agent to purchase a number of shares of our common stock equal to five percent (5%) of the number of shares of common stock contained in the units sold by us in the offering, but excluding the shares that may be issued upon exercise of the warrants included in the offering. The compensation warrants will have a per share exercise price equal to $1.25 (125% of the aggregate offering price for a unit) and will be exercisable starting 12 months after the date of the closing of this offering. The compensation warrants will comply with FINRA Rule 5110(g)(1) in that for a period of six months after the issuance date of the compensation warrants, neither the compensation warrants nor any warrant shares issued upon exercise of the compensation warrants shall be (A) sold, transferred, assigned, pledged, or hypothecated, or (B) the subject of any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of the securities by any person for a period of 180 days immediately following the date of effectiveness or commencement of sales of the offering pursuant to which the compensation warrants are being issued, except the transfer of any security as permitted by the FINRA rules.

The placement agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act and any commissions received by it and any profit realized on the sale of the securities by it while acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. The placement agent will be required to comply with the requirements of the Securities Act and the Securities Exchange Act of 1934, as amended, or the Exchange Act, including, without limitation, Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of shares of common stock and warrants to purchase shares of common stock by the placement agent. Under these rules and regulations, the placement agent may not (i) engage in any stabilization activity in connection with our securities; and (ii) bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until they have completed their participation in the distribution.

We and each of our officers and directors have agreed not to offer, sell, contract to sell or grant any option to sell or otherwise dispose of any shares of our common stock or other securities convertible into or exchangeable or exercisable for shares of our common stock or derivatives of our common stock owned by these persons prior to this offering or common stock issuable upon exercise of options or warrants held by these persons for a period of 90 days after the last closing of the offering described herein. The 90-day lock-up period may be extended if (i) during the last

17 days of the 90-day period we issue an earnings release or material news or a material event relating to us occurs; or (ii) prior to the expiration of the 90-day period, we announce that we will release earnings results during the 16-day period following the last day of the 90-day period. The period of such extension will be 18 days, beginning on the issuance of the earnings release or the occurrence of the material news or material event, as applicable. Dawson James Securities, Inc. may, in its

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sole discretion, and at any time without notice, release some or all of the shares subject to lock-up agreements prior to the expiration of the 90-day period.

There are no agreements between Dawson James Securities, Inc. and the Company or any of our stockholders or affiliates releasing them from this lock-up prior to the expiration of this 90-day period. Notwithstanding our lock-up agreement with Dawson James Securities, Inc., we may issue warrants, options and shares of capital stock (i) in connection with the conversion of convertible debt or the exercise of warrants and options outstanding prior to the closing of this offering and the grant of options to our officers, directors, employees and consultants under our stock option plan and (ii) as otherwise contemplated by our engagement letter agreement with Dawson James Securities, Inc. In addition, we have agreed with Dawson James Securities, Inc. not to make certain issuances or sales of our securities for a period of 90 days from the completion of this offering, without the prior written consent of Dawson James Securities, Inc.

The engagement letter agreement provides that we will indemnify the placement agent against specified liabilities, including liabilities under the Securities Act. We have been advised that, in the opinion of the Securities and Exchange Commission, indemnification for liabilities under the Securities Act is against public policy as expressed in the Securities Act and is therefore unenforceable.

NOTICE TO INVESTORS

European Economic Area

In relation to each member state of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State), with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State, or the Relevant Implementation Date, no offer of any securities which are the subject of the offering contemplated by this prospectus has been or will be made to the public in that Relevant Member State other than any offer where a prospectus has been or will be published in relation to such securities that has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the relevant competent authority in that Relevant Member State in accordance with the Prospectus Directive, except that with effect from and including the Relevant Implementation Date, an offer of such securities may be made to the public in that Relevant Member State:

(a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;

(b) to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the representatives of the underwriters for any such offer; or

(c) in any other circumstances falling within Article 3(2) of the Prospectus Directive,

provided that no such offer of securities shall require us or any of the underwriters to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive.

For the purposes of this provision, the expression an offer to the public in relation to any securities in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe the securities, as the same may be varied in that Relevant Member State by any measure implementing the Prospectus Directive in that Relevant Member State and the expression Prospectus Directive means Directive 2003/71/EC (and amendments

thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State and the expression 2010 PD Amending Directive means Directive 2010/73/EU.

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United Kingdom

The communication of this prospectus and any other documents or materials relating to this prospectus is not being made and such documents and/or materials have not been approved by an authorized person for the purposes of section 21 of the Financial Services and Markets Act 2000. In the United Kingdom, this document is being distributed only to, and is directed only at, and any offer subsequently made may only be directed at persons who are qualified investors (as defined in the Prospectus Directive)(i) who have professional experience in matters relating to investments falling within Article 19 (5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the Order) and/or (ii) who are high net worth companies (or persons to whom it may otherwise be lawfully communicated) falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as relevant persons). This document must not be acted on or relied on in the United Kingdom by persons who are not relevant persons.

LEGAL MATTERS

The validity of the securities offered by this prospectus will be passed on by Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Boston, Massachusetts. Baker Botts, LLP, Palo Alto, California, is acting as counsel for the placement agent in this offering.

EXPERTS

The financial statements incorporated in this prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2010 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

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WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the common stock and warrants offered by this prospectus. This prospectus does not contain all of the information included in the registration statement. For further information pertaining to us and our common stock and warrants, you should refer to the registration statement and the exhibits and schedules filed with the registration statement. Whenever we make reference in this prospectus to any of our contracts, agreements or other documents, the references are not necessarily complete, and you should refer to the exhibits attached to the registration statement for copies of the actual contract, agreement or other document.

We are subject to the informational requirements of the Securities Exchange Act and file annual, quarterly and current reports, proxy statements and other information with the SEC. You can read our SEC filings, including the registration statement, over the Internet at the SEC s website at *www.sec.gov*. You may also read and copy any document we file with the SEC at its Public Reference Room at 100 F Street, N.E., Washington, D.C., 20549. You may also obtain copies of the documents at prescribed rates by writing to the Public Reference Room of the SEC at 100 F Street, N.E., Washington, D.C., 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference facility.

INCORPORATION OF DOCUMENTS BY REFERENCE

We have elected to incorporate by reference certain information in this prospectus pursuant to General Instruction VII of Form S-1in accordance with the Securities and Exchange Act of 1934. We have previously filed the following documents with the SEC and are incorporating them by reference into this prospectus, except for information furnished under Item 2.02 or Item 7.01 of Form 8-K, and any exhibits relating to such information, which is neither deemed filed nor incorporated by reference herein:

Annual Report on Form 10-K for the year ended December 31, 2010, filed with the SEC on March 7, 2011;

Definitive Proxy Statements on Schedule 14A, filed with the SEC on April 6, 2011;

Quarterly Reports on Form 10-Q, filed with the SEC on April 28, 2011, July 28, 2011 and October 27, 2011;

Current Reports on Form 8-K, filed with the SEC on January 5, 2011, February 3, 2011, March 3, 2011, May 16, 2011 and September 1, 2011;

Description of our common stock contained in our Registration Statement on Form 8-A filed pursuant to Section 12(g) of the Exchange Act, filed with SEC on July 19, 2004; and

Description of our preferred share purchase rights contained in our Registration Statement on Form 8-A filed pursuant to Section 12(b) of the Exchange Act, filed with the SEC on March 8, 2007.

A statement contained in a document incorporated by reference into this prospectus shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus, any prospectus supplement or in any other subsequently filed document which is also incorporated in this prospectus modifies or replaces such statement. Any statements so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

These filings, our other annual, quarterly, and current reports, our proxy statements, and our other SEC filings may be examined, and copies may be obtained, at the SEC s public reference room at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the public reference room by calling the SEC at (800) SEC-0330. Our SEC filings are also available to the public on the SEC s website at *www.sec.gov*.

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Our internet address is *www.neurometrix.com* and the investor relations section of our website is located at *http://phx.corporate-ir.net/phoenix.zhtml?c=180007&p=irol-IRHome.* We make available free of charge, on or through the investor relations section of our website, Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. Information contained on our website is not part of this prospectus.

We hereby undertake to provide without charge to each person, including any beneficial owner, to whom a prospectus is delivered, upon written or oral request of any such person, a copy of any and all of the information that has been incorporated by reference in this prospectus, but not delivered with the prospectus. Requests for such copies should be sent to us at the following address:

NeuroMetrix, Inc.
62 Fourth Avenue
Waltham, Massachusetts 02451
Attention: Investor Relations
(781) 890-9989

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Up to 10,500,000 Units

PROSPECTUS

DAWSON JAMES SECURITIES, INC.

February 8, 2012