

NEPHROS INC
Form S-1/A
April 08, 2013

As filed with the Securities and Exchange Commission on April 8, 2013

Registration No. 333-187036

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

**Amendment No.1 to
FORM S-1
REGISTRATION STATEMENT**

UNDER THE SECURITIES ACT OF 1933

NEPHROS, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction of
Incorporation or Organization)

3841
*(Primary Standard Industrial
Classification Code Number)*

13-3971809
*(I. R. S. Employer
Identification No.)*

**41 Grand Avenue
River Edge, New Jersey 07661
(201) 343-5202**

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

John C. Houghton
President & Chief Executive Officer
Nephros, Inc.
41 Grand Avenue
River Edge, New Jersey 07661
(201) 343-5202

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent for Service)

Copies to:

Michael T. Rave, Esq.
Day Pitney LLP
One Jefferson Road
Parsippany, NJ 07054
Telephone: (973) 966-8123
Facsimile: (973) 206-6791

Approximate date of commencement of proposed sale to the public: As promptly as practicable after this registration statement becomes effective and the satisfaction or waiver of certain other conditions described herein.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act, check the following box. x

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

Michael T. Rave, Esq. Day Pitney LLP One Jefferson Road Parsippany, NJ 07054 Telephone: (973) 966-8123 Facsimile: (973) 206-6791

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act.

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

CALCULATION OF REGISTRATION FEE

| Title of each class of securities to be registered ⁽¹⁾⁽²⁾ | Amount to be registered | Proposed maximum aggregate offering price per share | Proposed maximum aggregate offering price | Amount of registration fee |
|-------------------------------------------------------------------------------------------------------------------------|----------------------------|--------------------------------------------------------------------|----------------------------------------------------|-------------------------------|
| Subscription rights to purchase Common Stock ⁽³⁾ Common stock, \$0.001 par value per share ⁽⁴⁾ | 5,000,000 | \$ 0.60 | \$ 3,000,000 | \$ 409.20 ⁽⁴⁾⁽⁵⁾ |

Pursuant to Rule 416 under the Securities Act, the shares being registered hereunder include such indeterminate (1) number of shares of common stock as may be issuable with respect to securities being registered hereunder as a result of stock splits, stock dividends, recapitalizations or similar transactions.

(2) This registration statement relates to (a) subscription rights to purchase our common stock and (b) shares of our common stock deliverable upon exercise of the subscription rights.

The subscription rights are being issued without consideration. Pursuant to Rule 457(g), no separate registration fee (3) is payable with respect to the rights being offered hereby since the rights are being registered on the same registration statement as the securities offered pursuant thereto.

(4) Calculated pursuant to Rule 457(o) based on an estimate of the proposed maximum offering price of our common stock of \$0.60.

(5) Previously paid.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

TABLE OF CONTENTS

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities or the solicitation of an offer to buy these securities in any state in which such offer, solicitation or sale is not permitted.

PRELIMINARY PROSPECTUS

SUBJECT TO COMPLETION DATED APRIL 8, 2013

NEPHROS, INC.

Up to 5,000,000 Shares of Common Stock Issuable Upon Exercise of Non-Transferable Rights to Subscribe for such Shares

We are distributing, at no charge, to holders of our common stock and/or warrants non-transferable subscription rights to purchase up to 5,000,000 shares of our common stock. We refer to this offering as the rights offering. In this rights offering, you will receive one non-transferable subscription right for each share of common stock and/or each share of common stock underlying a warrant owned by you at 5:00 p.m., Eastern Time, on April 4, 2013, which we refer to as the record date. Each non-transferable subscription right will entitle you to purchase 0.18776 of a share of our common stock at a subscription price of \$0.60 per share, which we refer to as the basic subscription privilege.

There is no minimum number of shares you must purchase. All exercises of subscription rights are irrevocable. We will not issue any fractional shares. Instead we will round up any fractional shares to the nearest whole share.

If you exercise your basic subscription privilege in full, you may also exercise an over-subscription privilege to subscribe for additional shares not subscribed for by other rights holders in the offering at the same subscription price of \$0.60 per share, subject to certain limitations. If an insufficient number of shares is available to fully satisfy all over-subscription privilege requests, the available shares will be allocated proportionately among rights holders who exercise their over-subscription privileges based on the number of shares each such holder subscribed for under the basic subscription privilege. To the extent you properly exercise your over-subscription privilege for an amount of shares that exceeds the number of unsubscribed shares available to you, any excess subscription payment received by the subscription agent will be promptly returned to you, without interest or deduction.

Subject to the satisfaction of certain conditions including compliance with all obligations under a \$1.3 million note, related security agreement and the other transaction documents between Lambda Investors and us and no material adverse change having occurred with respect to our business, assets, and financial condition, Lambda Investors has advised us that it intends to exercise its basic subscription privilege in full and to purchase any shares of common stock that are not subscribed for by our other stockholders and warrant holders in the rights offering, if any. Therefore, subject to these conditions, unless we terminate the rights offering, we anticipate that the 5,000,000 shares that we are offering in the rights offering will be purchased regardless of whether any shares are subscribed for by our stockholders and warrant holders other than Lambda Investors pursuant to the exercise of the basic subscription privilege and over-subscription privilege.

The subscription rights will expire if they are not exercised by 5:00 p.m., Eastern Time, on May 17, 2013, unless we

extend the subscription period in our sole discretion, but in no event by more than 60 days from the date of this prospectus. However, our board of directors reserves the right to cancel the rights offering at any time, for any reason. If the rights offering is cancelled, all subscription payments received by the subscription agent will be returned promptly.

Shares of our common stock are quoted on the OTC Bulletin Board under the ticker symbol NEPH. On April 4, 2013, the closing sales price for our common stock was \$0.85 per share. The shares of common stock issued in the rights offering will also be quoted on the OTC Bulletin Board under the same ticker symbol. The subscription rights will not be listed for trading on any stock exchange or market or quoted on the OTC Bulletin Board.

This is not an underwritten offering. The shares are being offered directly by us without the services of an underwriter or selling agent.

The purchase of shares involves substantial risks. See Risk Factors beginning on page 16 of this prospectus to read about important factors you should consider before subscribing for shares.

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.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is April , 2013.

TABLE OF CONTENTS

NEPHROS, INC.
TABLE OF CONTENTS

| | Page |
|-------------------------------------------------------------------------------------------------------|------------|
| <u>Prospectus Summary</u> | <u>1</u> |
| <u>Questions and Answers Relating to the Rights Offering</u> | <u>10</u> |
| <u>Risk Factors</u> | <u>16</u> |
| <u>Special Note Regarding Forward-Looking Statements</u> | <u>30</u> |
| <u>Use of Proceeds</u> | <u>30</u> |
| <u>Determination of Offering Price</u> | <u>31</u> |
| <u>Dilution</u> | <u>31</u> |
| <u>Dividend Policy</u> | <u>32</u> |
| <u>Capitalization</u> | <u>32</u> |
| <u>Market for Our Common Stock</u> | <u>33</u> |
| <u>The Rights Offering</u> | <u>34</u> |
| <u>Plan of Distribution</u> | <u>43</u> |
| <u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u> | <u>45</u> |
| <u>Business</u> | <u>53</u> |
| <u>Management</u> | <u>64</u> |
| <u>Executive Compensation</u> | <u>71</u> |
| <u>Certain Relationships and Related Transactions</u> | <u>77</u> |
| <u>Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u> | <u>79</u> |
| <u>Description of Common Stock</u> | <u>81</u> |
| <u>Certain Material U.S. Federal Income Tax Considerations</u> | <u>82</u> |
| <u>Legal Matters</u> | <u>84</u> |
| <u>Experts</u> | <u>84</u> |
| <u>Where You Can Find More Information</u> | <u>84</u> |
| <u>Disclosure of SEC Position on Indemnification for Securities Law Violations</u> | <u>84</u> |
| <u>Financial Statements</u> | <u>F-1</u> |
| <u>Report of Independent Registered Public Accounting Firm</u> | <u>F-2</u> |

ABOUT THIS PROSPECTUS

We refer to Nephros, Inc. and its consolidated subsidiary as "Nephros," the "Company," "we," "our," and "us." This prospectus is part of a registration statement that we have filed with the Securities and Exchange Commission, which we refer to as the SEC or the Commission, utilizing a registration process. It is important for you to read and consider all of the information contained in this prospectus and any applicable prospectus before making a decision whether to invest in the common stock. You should also read and consider the information contained in the exhibits filed with our registration statement, of which this prospectus is a part, as described in "Where You Can Find More Information" in this prospectus.

You should rely only on the information contained in this prospectus and any applicable prospectus supplement, including the information incorporated by reference. We have not authorized anyone to provide you with different information. We are not offering to sell or soliciting offers to buy, and will not sell, any securities in any jurisdiction where it is unlawful. You should assume that the information contained in this prospectus or any prospectus supplement, as well as information contained in a document that we have previously filed or in the future will file with the SEC is accurate only as of the date of this prospectus, the applicable prospectus supplement or the document containing that information, as the case may be.

TABLE OF CONTENTS

PROSPECTUS SUMMARY

This summary highlights information contained in other parts of this prospectus. Because it is a summary, it does not contain all of the information that is important to you. For a more complete understanding of our business and the rights offering, you should read this summary together with the more detailed information and financial statements appearing elsewhere in this prospectus. You should read this entire prospectus carefully, including the Risk Factors and Special Note Regarding Forward-Looking Statements sections. This prospectus contains important information that you should consider when making your investment decision.

About the Company

Nephros is a commercial stage medical device company that develops and sells high performance liquid purification filters. Our filters, which we call ultrafilters, are primarily used in dialysis centers and healthcare facilities for the production of ultrapure water and bicarbonate. Because our ultrafilters capture contaminants as small as 0.005 microns in size, they eliminate a wide variety of bacteria, viruses, fungi, parasites, and endotoxins harmful to humans.

All of our ultrafilters use proprietary hollow fiber technology. We believe the hollow fiber design allows our ultrafilters to be the only commercially available filters for healthcare applications that optimize the three elements critical to filter performance:

Filtration as low as 0.005 microns
Flow rate minimal disruption
Filter life up to 12 months

By comparison, competitive filters on the market today are typically effective only to the 0.2 micron level and are prone to clog more quickly, thus reducing their useful lives.

We were founded in 1997 by healthcare professionals affiliated with Columbia University Medical Center/New York-Presbyterian Hospital to develop and commercialize an alternative method to hemodialysis (HD). In 2009, we began to extend our filtration technologies to meet the demand for liquid purification in other areas, in particular water purification.

Our Products

Presently, we offer seven types of ultrafilters for sale to customers in four markets:

Dialysis Centers Water/Bicarbonate: Treatment of both water and bicarbonate for the production of ultrapure dialysate

Hospitals and Other Healthcare Facilities: Removal of infectious agents in drinking and bathing water, particularly in high risk patient areas

Military: Highly compact, individual water treatment devices used by soldiers to produce safe drinking water in the field

Dialysis Centers Blood: Clearance of toxins from blood using an alternative method to HD in patients with chronic renal failure

We have designed our ultrafilters as either in-line products, filters that are incorporated into the existing plumbing of healthcare facilities, or point-of-use products, filters that can be easily installed onto a faucet or as a replacement shower head or can be used stand-alone to purify small quantities of water immediately prior to use.

Our Target Markets

Dialysis Centers Water/Bicarbonate. To perform hemodialysis, all dialysis clinics have dedicated water purification systems to produce pure water and bicarbonate. Water and bicarbonate are essential ingredients for making dialysate, the liquid that removes waste material from the blood. Within the U.S., there are approximately 5,700 clinics with 100,000 dialysis machines providing over 50 million dialysis treatments to 370,000 patients annually.

1

TABLE OF CONTENTS

Medicare is the main payor for dialysis treatment in the U.S. To be eligible for Medicare reimbursement, dialysis centers must meet the minimum standards for water and bicarbonate quality set by the Association for the Advancement of Medical Instrumentation (AAMI), the American National Standards Institute (ANSI) and the International Standards Organization (ISO). We anticipate that the stricter standards approved by these organizations in 2009 will be adopted by Medicare in the near future.

Published studies have shown that the use of ultrapure dialysate can make patients healthier and reduce their dependence on erythropoietin (EPO), an expensive drug used in conjunction with HD. By reducing the level of dialysate contaminants, specifically cytokine-inducing substances that can pass into a patient's blood stream, cytokine levels within a patient stay low, thus reducing systemic inflammation. When inflammation is low, inflammatory morbidities are reduced and a patient's responsiveness to EPO is enhanced, consequently the overall need for the drug is reduced.

We believe that our ultrafilters are attractive to dialysis centers because they exceed currently approved and newly proposed standards for water/bicarbonate purity, assist in achieving those standards and help dialysis centers reduce costs associated with the amount of EPO required to treat a patient. Our in-line filters are easily installed into the fluid circuits supplying water and bicarbonate just prior to entering each dialysis machine.

Hospitals and Other Healthcare Facilities. According to the United States Centers for Disease Control and Prevention (CDC), healthcare acquired infections (HAIs) annually account for 1.7 million infections, 99,000 deaths, and \$4.5 - \$6.5 billion in extra costs in U.S. hospitals. At the root of many HAIs are waterborne pathogens such as *Legionella* and *Pseudomonas* which can thrive in aging or complex plumbing systems often found in healthcare facilities. According to the CDC, 23% of *Legionella* infections originate in healthcare facilities and *Pseudomonas* infections account for 10% of all water-related HAIs. These pathogens are most harmful to patients in intensive care, neonatal, burn, cancer, and transplant units.

The Affordable Care Act (ACA) which was passed in March 2010 puts in place comprehensive health insurance reforms that aim to lower costs and enhance quality of care. With its implementation, healthcare providers have substantial incentives to deliver better care or be forced to absorb the expenses associated with repeat medical procedures or complications like HAIs. The ACA encompasses HAIs and shifts the costs associated with their treatment back onto the healthcare provider. As a consequence, hospitals and other healthcare facilities are proactively implementing strategies to reduce the potential for HAIs.

Our ultrafilters are designed to reduce the risk of HAIs in the hospital/healthcare setting by treating water just prior to use. Our products can be used for reactive infection control. For example, during acute disease outbreaks (such as Legionnaires' disease), our ultrafilters have been used at hospitals and other healthcare facilities to quickly and efficiently assist in the control of such outbreaks. Our ultrafilters are also being used as a preventative measure in healthcare facilities, particularly in areas where high risk patients are being treated. Our point-of-use filters can be easily installed onto the end of faucets or as replacement shower heads.

The plastic casing of our hospital ultrafilters contains BACTiglas™. BACTiglas™ releases silver ions at the surface of the plastic casing such that they are imparted to anything that touches it. Silver ions (through chemical bonding with amino acids) result in the killing of the bacteria that remains on the surface of the plastic. This enables our hospital ultrafilters to be bacteriocidal to any touch contamination or any growth on the surface of the plastic in addition to their water treatment effect.

Military. The military is heavily reliant on the use of bottled water to support its soldiers in the field. Bottled water is not always available, is very costly to move, resource intensive, and prone to constant supply disruptions. Soldiers

conducting operations in isolated and rugged terrain must be able to use available local water sources when unable to resupply from bulk drinking water sources or bottled water. Therefore, the soldier needs the capability to purify water from indigenous water sources in the absence of available potable water. Soldiers must have the ability to remove microbiological contaminants in the water to Environmental Protection Agency specified levels; thereby reducing the effects of acute debilitating illnesses to soldiers.

We offer our individual water treatment device (IWTD), which allows a soldier in the field to derive biologically safe water from any fresh water source. Our IWTD is available in both in-line and point-of-use configurations. Our IWTD is one of the few portable filters that have been validated by the military to meet

TABLE OF CONTENTS

the NSF Protocol P248 standard. It has also been approved by U.S. Army Public Health Command (USAPHC) and U.S. Army Test and Evaluation Command (ATEC) for deployment. To date, we have received purchase orders for approximately 2,000 IWTDs from individual units of the U.S. armed forces and could become more widely used by soldiers in the future.

In January 2013, the U.S. Army issued a request for proposal (RFP) relating to an IWTD, Nephros submitted its response to this RFP on February 25th. The U.S. Army may award several, one or no contracts as a result of this solicitation. The maximum quantity of all contracts combined is not to exceed 450,000 units or \$45,000,000 over a 3 year period. The RFP evaluation period may take up to 6 months before an award is made, if at all.

Dialysis Centers Blood. The current standard of care in the U.S. for patients with chronic renal failure is HD, a process in which toxins are cleared via diffusion. Patients typically receive HD treatment at least 3 times weekly for 3 – 4 hours per treatment. HD is most effective in removing smaller, easily diffusible toxins. For patients with acute renal failure, the current standard of care in the U.S. is hemofiltration (HF), a process where toxins are cleared via convection. HF offers a much better removal of larger sized toxins when compared to HD. However, HF treatment is performed on a daily basis, and typically takes 12 – 24 hours.

Hemodiafiltration (HDF) is an alternative dialysis modality that combines the benefits of HD and HF into a single therapy by clearing toxins using both diffusion and convection. Though not widely used in the U.S., HDF is much more prevalent in Europe and is performed in approximately 16% of patients. Clinical experience and literature show the following multiple clinical and patient benefits of HDF:

- Enhanced clearance of middle and large molecular weight toxins
- Improved survival – up to a 35% reduction in mortality risk
- Reduction in the occurrence of dialysis-related amyloidosis
- Reduction in inflammation
- Reduction in medication such as EPO and phosphate binders
- Improved patient quality of life
- Reduction in number of hospitalizations and overall length of stay

However, like HF, HDF can be resource intensive and can require a significant amount of time to deliver one course of treatment.

We have developed a modified approach to HDF which is more patient-friendly, less resource-intensive, and can be used in conjunction with current HD machines. We refer to our approach as an on-line mid-dilution hemodiafiltration (mid-HDF) system and it consists of our OLpur H2H Module and OLpur MD220 Hemodiafilter. On April 30, 2012, we announced that we received clearance from the U.S. Food and Drug Administration to market the OLpur H2H Module and OLpur MD220 Hemodiafilter for use with a UF controlled hemodialysis machine that provides ultrapure dialysate in accordance with current ANSI/AAMI/ISO standards, for the treatment of patients with chronic renal failure in the United States. Like HD, on-line mid-HDF treatment is given to patients at least 3 times weekly for 3 – 4 hours per treatment. Our mid-HDF system is the only HDF system of its kind to be cleared by the FDA to date.

We are currently preparing our OLpur H2H Modules and manufacturing our OLpur MD220 Hemodiafilters in readiness for market release. We expect to place a mid-HDF system in a U.S. dialysis clinic in Q2. We have not begun to broadly market our mid-HDF system and plan to seek a commercialization partner in the U.S.

TABLE OF CONTENTS

Immediate Need for Capital and Recent Loan from Lambda Investors LLC

As of December 31, 2012, we had cash and cash equivalents totaling approximately \$47,000 and tangible assets of approximately \$1,419,000.

Due to our dwindling cash position, on February 4, 2013, we issued a senior secured note to Lambda Investors LLC in the principal amount of \$1,300,000. We expect that the proceeds from the note will allow us to fund our operations only through May 2013. The terms of the Lambda Investors note are discussed in more detail under the heading **The Rights Offering** **Background of the Rights Offering** **Loan from Lambda Investors**.

As required under the terms of the note, we are conducting this rights offering to raise up to \$3,000,000 from our existing stockholders and warrant holders. If we complete the rights offering, we must repay the principal and accrued interest on the note as well as fees and expenses associated with the note with the proceeds from the rights offering. Other conditions to the closing of the rights offering are discussed under the heading **The Rights Offering** **Conditions to the Rights Offering**.

As of the date of this prospectus, Lambda Investors is our largest stockholder and beneficially owns approximately 31% of our outstanding common stock and, on a fully-diluted basis, owns approximately 53% of our outstanding common stock. The warrants held by Lambda Investors have an exercise price of \$0.40 per share and certain warrants have full ratchet anti-dilution protection.

The shares beneficially owned by Lambda Investors may be deemed beneficially owned by Wexford Capital LP, which is the managing member of Lambda Investors. Arthur H. Amron, a director of Nephros, is a partner and general counsel of Wexford Capital. Paul Mieyal, a director of Nephros, is a vice president of Wexford Capital.

Corporate Information

We were incorporated under the laws of the State of Delaware in April 1997. Our principal executive offices are located at 41 Grand Avenue, River Edge, New Jersey, 07661, and our telephone number is (201) 343-5202. We also have an office in Dublin, Ireland. For more information about Nephros, please visit our website at www.nephros.com.

Where You Can Find More Information

We make available on our website, www.nephros.com, our annual reports, quarterly reports, proxy statements and other filings made with the SEC. The registration statement on Form S-1, of which this prospectus is a part, and its exhibits, as well as our other reports filed with the SEC, can be inspected and copied at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549. The public may obtain information about the operation of the public reference room by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains a web site at www.sec.gov which contains our registration statement on Form S-1 and any amendments thereto and other reports, proxy and information statements and information regarding us that we file electronically with the SEC.

TABLE OF CONTENTS

The Rights Offering

*The following summary describes the principal terms of the rights offering, but is not intended to be complete. See the information under the heading *The Rights Offering* in this prospectus for a more detailed description of the terms and conditions of the rights offering.*

Securities Offered

We are distributing to holders of our common stock, at no charge, one non-transferable subscription right for each share of our common stock owned as of 5:00 p.m., Eastern Time, on the record date, either as a holder of record or, in the case of shares held of record by brokers, dealers, custodian banks or other nominees on a stockholder's behalf, as a beneficial owner of such shares.

We are also distributing to holders of our warrants, at no charge, one non-transferable subscription right for each share of common stock underlying the warrants held by such warrant holder as of 5:00 p.m., Eastern Time, on the record date, under the same terms and conditions.

In either case, each subscription right entitles you to purchase 0.18776 of a share of our common stock at an exercise price of \$0.60 per share.

Basic Subscription Privilege

The basic subscription privilege will entitle you to purchase 0.18776 of a share of our common stock at a subscription price of \$0.60 per share. You may exercise your basic subscription privilege for some or all of your rights, or you may choose not to exercise your rights. If you choose to exercise your rights, there is no minimum number of shares you must purchase. We will not issue any fractional shares. Instead we will round up any fractional shares to the nearest whole share.

Over-Subscription Privilege

If you exercise your basic subscription privilege in full, you may also exercise an over-subscription privilege to subscribe for additional shares not subscribed for by other rights holders in the offering at the same subscription price of \$0.60 per share. If an insufficient number of shares is available to fully satisfy all over-subscription privilege requests, the available shares will be allocated proportionately among rights holders who exercise their over-subscription privileges based on the number of shares each such holder subscribed for under the basic subscription privilege. The subscription agent will return any excess payments by mail without interest or deduction promptly after expiration of the subscription period.

Subscription Price

\$0.60 per share, payable in cash. To be effective, any payment related to the exercise of a right must clear prior to the expiration of the subscription period.

Record Date

5:00 p.m., Eastern Time, on April 4, 2013.

Expiration Date

5:00 p.m., Eastern Time, on May 17, 2013, subject to extension at our sole discretion, but in no event by more than 60 days from the date of this prospectus. We may extend the expiration date by giving oral or written notice to our subscription agent on or before the expiration date,

TABLE OF CONTENTS

followed by a press release no later than 9:00 a.m., Eastern Time, on the next business day after the previously scheduled expiration date.

Non-Transferability of Rights

The subscription rights are not transferrable, other than by operation of law, and will not be quoted or listed for trading, as applicable, on the OTC Bulletin Board or on any stock exchange or trading markets.

No Board Recommendation

Our board of directors is making no recommendation regarding your exercise of the subscription rights. You are urged to make your decision based on your own assessment of our business and the rights offering. Please see **Risk Factors** for a discussion of the risks involved in investing in our common stock.

Lambda Investors

Lambda Investors has advised us that it intends to exercise its basic subscription privilege in full and to purchase any shares of common stock that are not subscribed for by our other stockholders and warrant holders in the rights offering, if any, subject to the following conditions being satisfied:

the business, assets, financial condition, operations, results of operations and prospects of the Company are substantially as have been represented to Lambda Investors on February 4, 2013 in connection with the senior secured note and no change shall have occurred or is reasonably likely to occur solely with the passage of time that is or may be materially adverse to the Company; and

the Company's compliance with its obligations under the note, security agreement and other transaction documents relating to the loan by Lambda Investors.

Lambda Investors may elect to exercise its over-subscription privilege for such number of shares as it determines in its sole discretion.

We are obligated to use proceeds from the rights offering to repay the \$1,300,000 loan from Lambda Investors, plus all accrued interest thereon, as well as an 8% sourcing/transaction fee (\$104,000) in respect of the loan and an aggregate of \$100,000 for reimbursement of Lambda Investors' legal fees incurred in connection with the loan and the rights offering.

See **The Rights Offering**, **Background of the Rights Offering**, **Participation of Lambda Investors**.

No Revocation

Once you submit the form of rights certificate to exercise any subscription rights, you may not revoke or change your exercise or request a refund of monies paid. All exercises of rights are irrevocable, even if you later learn information about us that you consider to be unfavorable. You should not

TABLE OF CONTENTS

exercise your subscription rights unless you are certain that you wish to purchase shares offered pursuant to this rights offering.

Extension, Cancellation and Amendment

We may extend the expiration date at any time after the record date, but in no event by more than 60 days from the date of this prospectus. If the rights offering is extended, subscriptions received prior to such extension will remain irrevocable. We may choose to extend the rights offering for any reason. For example, we may decide that changes in the market price of our common stock warrant an extension, or we may decide that the degree of stockholder participation in the rights offering is less than the level we desire. We may cancel the rights offering at any time prior to the expiration of the rights offering for any reason. In the event the rights offering is cancelled, all subscription payments received by the subscription agent will be returned, without interest or deduction, as soon as practicable. We also reserve the right to amend or modify the terms of the rights offering, as appropriate.

Procedures for Exercising Rights

You may exercise your subscription rights by properly completing and executing your rights certificate and delivering it, together with the subscription price for each share for which you subscribe, to the subscription agent on or prior to the expiration date. If you use the mail, we recommend that you use insured, registered mail, return receipt requested. If you cannot deliver your rights certificate to the subscription agent on time, you may follow the guaranteed delivery procedures described under **The Rights Offering** **Guaranteed Delivery Procedures**.

Payment Adjustments

If you send a payment that is insufficient to purchase the number of shares requested, or if the number of shares requested is not specified in the rights certificate, the payment received will be applied to exercise your subscription rights to the extent of the payment. If the payment exceeds the amount necessary for the full exercise of your subscription rights, including any over-subscription privilege exercised and permitted, the excess will be returned to you promptly in cash. You will not receive interest or a deduction on any payments refunded to you under the rights offering.

How Rights Holders Can Exercise Rights

Through Others

If you hold our common stock or warrants through a broker, custodian bank or other nominee, we will ask your broker, custodian bank or other nominee to notify you of the rights offering. If you wish to exercise your rights, you will need to have your broker, custodian bank or other nominee act for you. To indicate your decision, you should complete and return to your broker, custodian bank or other nominee the form entitled **Beneficial Owner Election Form**. You should receive this form from your broker, custodian bank or other nominee with the other rights offering materials. You should contact your broker, custodian bank or other nominee if you

TABLE OF CONTENTS

believe you are entitled to participate in the rights offering but you have not received this form.

How Foreign Stockholders or Warrantheolders and Other Stockholders or Warrantheolders Can Exercise Rights

The subscription agent will not mail rights certificates to you if you are a stockholder or warrantheolder whose address is outside the United States or if you have an Army Post Office or a Fleet Post Office address. Instead, we will have the subscription agent hold the subscription rights certificates for your account. To exercise your subscription rights, you must notify the subscription agent prior to 11:00 a.m., Eastern Time, at least three business days prior to the expiration date, and establish to the satisfaction of the subscription agent that it is permitted to exercise your subscription rights under applicable law. If you do not follow these procedures in time, your rights will expire and will have no value.

Possible Restrictions on Exercise by Stockholders or Warrantheolders Residing in Certain States

We will not issue shares to any stockholder or warrantheolder who is required to obtain prior clearance or approval from, or submit a notice to, any state or federal regulatory authority to acquire, own or control such shares if we determine that, as of the expiration date of the rights offering, such clearance or approval has not been satisfactorily obtained and any applicable waiting period has not expired.

Certain Material U.S. Federal Income Tax Considerations

A holder will not recognize income or loss for U.S. federal income tax purposes in connection with the receipt or exercise of subscription rights in the rights offering. For a detailed discussion, see Certain Material U.S. Federal Income Tax Considerations. You should consult your tax advisor as to the particular consequences to you of the rights offering.

Conditions to the Rights Offering

The completion of the rights offering is subject to the registration statement of which this prospectus is a part being declared effective by the SEC. In addition, we reserve the right to amend, extend, cancel, terminate or otherwise modify this rights offering at any time before completion of this rights offering for any reason. See The Rights Offering Conditions to the Rights Offering.

Use of Proceeds

Assuming all the shares offered are sold, the gross proceeds from the rights offering will be approximately \$3,000,000. Our estimated net proceeds from the rights offering will be \$2,750,000, after deducting our estimated offering expenses of \$250,000.

We are obligated to use proceeds from the rights offering to repay the \$1,300,000 loan from Lambda Investors, plus all accrued interest thereon, as well as an 8% sourcing/transaction fee (\$104,000) in respect of the loan and an aggregate of \$100,000 for reimbursement of Lambda

TABLE OF CONTENTS

Investors legal fees incurred in connection with the loan and the rights offering. The terms of the Lambda Investors note are discussed in more detail under the heading The Rights Offering Background of the Rights Offering Loan from Lambda Investors. We intend to use the remaining net proceeds, if any, for general corporate purposes, including working capital and operating expenses. Pending the application of any remaining net proceeds for these purposes, we intend to invest them generally in short-term, investment-grade, interest-bearing securities. See Use of Proceeds.

Issuance of Common Stock

If you purchase shares through the rights offering, we will issue the underlying shares to you as soon as practicable after the completion of the rights offering.

Shares Outstanding Before the Rights Offering

12,025,309 shares of our common stock were outstanding as of the record date.

Shares Outstanding After Completion of the Rights Offering

As of the record date, we had 12,025,309 shares of our common stock issued and outstanding. We will issue 5,000,000 shares of our common stock in the rights offering if it is fully subscribed. Assuming all of the shares offered are sold and no additional shares of our common stock are issued and no outstanding options or warrants are exercised prior to the completion of the rights offering, approximately 17,025,309 shares of our common stock will be outstanding immediately after the completion of the rights offering.

Subscription Agent

Continental Stock Transfer & Trust Company.

Fees and Expenses

We will pay the fees and all of our expenses related to the rights offering. We will also pay Lambda Investors an aggregate of \$50,000 for reimbursement of legal fees incurred in connection with the rights offering. See Use of Proceeds.

Trading Symbol

Shares of our common stock are currently listed for quotation on the OTC Bulletin Board under the ticker symbol NEPH and the shares to be issued in connection with the rights offering will also be listed on the OTC Bulletin Board under the same symbol. Neither the warrants nor the subscription rights will be listed or traded on any market.

Risk Factors

Participation in the rights offering and the purchase of shares involve substantial risks. See Risk Factors beginning on page 16 of this prospectus.

Additional Information

For additional information, please see the description of this offering contained in this prospectus under the heading The Rights Offering or contact Gerald J. Kochanski at (201) 343-5202, ext. 102.

TABLE OF CONTENTS

QUESTIONS AND ANSWERS RELATING TO THE RIGHTS OFFERING

What is the rights offering?

We are distributing, at no charge, to holders of our common stock and warrants non-transferable subscription rights to purchase shares. You will receive one subscription right for each share of common stock and/or each share of common stock underlying a warrant you owned as of 5:00 p.m., Eastern Time, on April 4, 2013, the record date. The subscription rights will be evidenced by rights certificates. Each subscription right will entitle the holder to a basic subscription privilege and an over-subscription privilege.

What is the basic subscription privilege?

The basic subscription privilege gives our stockholders the opportunity to purchase 0.18776 of a share of our common stock at a subscription price of \$0.60 per share. You may exercise your basic subscription privilege for some or all of your rights, or you may choose not to exercise your rights.

If you choose to exercise your rights, there is no minimum number of shares you must purchase. We will not issue any fractional shares. Instead we will round up any fractional shares to the nearest whole share.

What is the over-subscription privilege?

If you exercise your basic subscription privilege in full, you may also exercise an over-subscription privilege to subscribe for additional shares not subscribed for by other rights holders in the offering at the same subscription price of \$0.60 per share. If an insufficient number of shares is available to fully satisfy all over-subscription privilege requests, the available shares will be allocated proportionately among rights holders who exercise their over-subscription privileges based on the number of shares each such holder subscribed for under the basic subscription privilege. The subscription agent will return any excess payments by mail without interest or deduction promptly after expiration of the subscription period.

Why are we conducting the rights offering?

We are conducting the rights offering to raise capital for our operations. Without additional capital, we will not have sufficient funds to continue our operations. With the proceeds from the note we issued to Lambda Investors, we estimate that we will be able to fund our operations into May 2013. The rights offering is expected to close on May 17, 2013. Upon the closing of the rights offering, we must first use proceeds to repay the \$1,300,000 loan from Lambda Investors, plus all accrued interest thereon, as well as an 8% sourcing/transaction fee (\$104,000) in respect of the loan and an aggregate of \$100,000 for reimbursement of Lambda Investors' legal fees incurred in connection with the loan and the rights offering. We intend to use the remaining net proceeds, if any, for general corporate purposes, including working capital and operating expenses. Pending the application of any remaining net proceeds for these purposes, we intend to invest them generally in short-term, investment-grade, interest-bearing securities.

How was the \$0.60 per share subscription price determined?

As a condition to making the loan, Lambda Investors required that we undertake a rights offering to raise additional funds to meet our ongoing financial requirements and to repay the loan. In its loan proposal, Lambda Investors specified a rights offering of 5,000,000 shares of our common stock, and that it be made at a subscription price of \$0.60 per share to encourage our other stockholders and warrant holders to participate. The loan and the rights offering, as proposed by Lambda Investors, including the \$0.60 per share subscription price, were approved by a special committee of our independent directors (none of whom are affiliated with Lambda Investors) after consideration of the financing alternatives available to us.

The \$0.60 per share subscription price is not necessarily related to our book value, net worth or any other established criteria of value and may or may not be considered the fair value of our common stock being offered in the rights offering. We did not consult with any financial or other advisor in determining the subscription price.

Am I required to exercise the subscription rights I receive in the rights offering?

No. You may exercise any number of your subscription rights, or you may choose not to exercise any subscription rights. However, if you choose not to fully exercise your basic subscription privilege and other stockholders fully exercise their basic subscription privilege, the percentage of our common stock owned by

TABLE OF CONTENTS

these other stockholders will increase relative to your ownership percentage, and your voting and other rights will likewise be significantly diluted. In addition, if you do not exercise your basic subscription privilege in full, you will not be entitled to subscribe to purchase additional shares pursuant to the over-subscription privilege and your ownership percentage in our common stock and related voting and other rights may be further diluted relative to those stockholders that do.

How soon must I act to exercise my subscription rights?

The subscription rights may be exercised at any time beginning on the date of this prospectus and prior to 5:00 p.m., Eastern Time, on the expiration date, which is May 17, 2013. We may extend the expiration date, but in no event by more than 60 days from the date of this prospectus, by giving oral or written notice to our subscription agent on or before the expiration date, followed by a press release no later than 9:00 a.m., Eastern Time, on the next business day after the previously scheduled expiration date. If you elect to exercise any rights, the subscription agent must actually receive all required documents and payments from you prior to the expiration of the subscription period. Although we have the option of extending the expiration of the subscription period, we currently do not intend to do so.

May I transfer my subscription rights?

No, you may not sell, transfer or assign your subscription rights to anyone else because they are not transferable, other than by operation of law.

May I revoke, change or cancel my election to exercise my subscription rights?

Once you submit the form of rights certificate to exercise any subscription rights, you may not revoke, change or cancel your exercise or request a refund of monies paid. All exercises of rights are irrevocable, even if you later learn information about us that you consider to be unfavorable. You should not exercise your subscription rights unless you are certain that you wish to purchase shares offered pursuant to this rights offering.

May our board of directors extend, cancel or amend the rights offering?

Yes. We may extend the expiration date at any time. If the rights offering is extended, subscriptions received prior to such extension will remain irrevocable. We may choose to extend the rights offering for any reason, but in no event by more than 60 days from the date of this prospectus. For example, we may decide that changes in the market price of our common stock warrant an extension, or we may decide that the degree of stockholder participation in the rights offering is less than the level we desire. We may cancel the rights offering at any time prior to the expiration of the rights offering for any reason. In the event the rights offering is cancelled, all subscription payments received by the subscription agent will be returned, without interest or deduction, as soon as practicable. We also reserve the right to amend or modify the terms of the rights offering, as appropriate.

Are we requiring a minimum subscription to complete the rights offering?

No. There is no minimum subscription requirement to consummate the rights offering.

If the rights offering is not completed, will my subscription payment be refunded to me?

Yes. The subscription agent will hold all funds it receives in a segregated bank account until completion of the rights offering. If the rights offering is not completed, the subscription agent will return, without interest or deduction, as soon as practicable, all subscription payments. If you own shares in street name, it may take longer for you to receive payment because the subscription agent will return payments through the record holder of the shares.

Has our board of directors made a recommendation to our stockholders regarding the rights offering?

No. Our board of directors is making no recommendation regarding your exercise of the subscription rights. Stockholders and warrant holders who exercise subscription rights risk investment loss on new money invested. We cannot assure you that the market price for our common stock will be above the per share subscription price or that anyone purchasing shares at the subscription price will be able to sell the underlying

TABLE OF CONTENTS

shares in the future at the same price or a higher price. You are urged to make your decision based on your own assessment of our business and the rights offering. Among other things, you should carefully consider the risks described under the heading "Risk Factors" in this prospectus.

Are there any conditions to the rights offering?

Yes. The registration statement of which this prospectus is a part must be declared effective by the SEC.

What happens to warrants and options that are outstanding?

As of the record date, warrants to purchase 14,604,486 shares of our common stock were outstanding. In addition to the rights offering, the Company intends to offer a one-time temporary discount relating to those warrants with a \$0.40 exercise price issued at the close of the March 2011 rights offering. The Company agreed to temporarily reduce the exercise price of such warrants to \$0.30 during the duration of this rights offering. In connection with the loan, Lambda Investors agreed to waive its anti-dilution rights applicable to any of its existing warrants solely with respect to the one-time discount offered to public warrant holders.

Also, in connection with the February 2013 loan from Lambda Investors, the Company agreed to amend the terms of the existing warrants held by Lambda Investors to March 10, 2017 from March 10, 2016. At the time of the rights offering, Lambda Investors has outstanding warrants to purchase an aggregate of 11,589,152 shares of common stock, all at an exercise price of \$0.40 per share.

The rights offering will have no effect on any of our outstanding options.

Will members of the board of directors and management be permitted to participate in the rights offering?

Yes. Members of our board and executive management team who own shares of common stock and/or warrants on the record date have the same basic subscription and over-subscription privileges as other stockholders. We caution you that the board of directors or members of the executive management team do not make any recommendation regarding your exercise of subscription rights.

Have any stockholders committed or indicated that they intend to purchase any shares in the rights offering?

Lambda Investors has advised us that it intends to exercise its basic subscription privilege in full and to purchase any shares of common stock that are not subscribed for by our other stockholders in the rights offering, if any, subject to the following conditions being satisfied:

the business, assets, financial condition, operations, results of operations and prospects of the Company are substantially as have been represented to Lambda Investors on February 4, 2013 in connection with the senior secured note and no change shall have occurred or is reasonably likely to occur solely with the passage of time that is or may be materially adverse to the Company; and
the Company's compliance with its obligations under the note, security agreement and other transaction documents

relating to the loan by Lambda Investors.

We are obligated to use proceeds from the rights offering to repay the \$1,300,000 loan from Lambda Investors, plus all accrued interest thereon, as well as an 8% sourcing/transaction fee (\$104,000) in respect of the loan and an aggregate of \$100,000 for reimbursement of Lambda Investors' legal fees incurred in connection with the loan and the rights offering.

See The Rights Offering Background of the Rights Offering Participation of Lambda Investors.

What will happen if I choose not to exercise my subscription rights?

If you do not exercise any subscription rights, the number of shares of our common stock you own will not change as a result of the rights offering; however, due to the fact that shares will be purchased by other stockholders and warrant holders, including Lambda Investors, your percentage ownership of our Company will be significantly diluted after the completion of the rights offering.

TABLE OF CONTENTS

How do I exercise my subscription rights?

You may exercise your subscription rights by properly completing and executing your rights certificate and delivering it, together with the subscription price for each share for which you subscribe, to the subscription agent on or prior to 5:00 p.m., Eastern Time, on the expiration date. If you use the mail, we recommend that you use insured, registered mail, return receipt requested. If you cannot deliver your rights certificate to the subscription agent on time, you may follow the guaranteed delivery procedures described under [The Rights Offering](#) [Guaranteed Delivery Procedures](#). If you hold shares of our common stock through a broker, custodian bank or other nominee, see [The Rights Offering](#) [Beneficial Owners](#).

What should I do if I want to participate in the rights offering, but my shares or warrants are held in the name of my broker, custodian bank or other nominee?

If you hold your shares of our common stock or warrants in the name of a broker, custodian bank or other nominee, we will ask your broker, custodian bank or other nominee to notify you of the rights offering. If you wish to exercise your rights, you will need to have your broker, custodian bank or other nominee act for you. To indicate your decision, you should complete and return to your broker, custodian bank or other nominee the form entitled [Beneficial Owner Election Form](#). You should receive this form from your broker, custodian bank or other nominee with the other rights offering materials. You should contact your broker, custodian bank or other nominee if you believe you are entitled to participate in the rights offering but you have not received this form.

What should I do if I want to participate in the rights offering, but I am a stockholder or warrant holder with a foreign address or a stockholder or warrant holder with an APO or FPO address?

The subscription agent will not mail rights certificates to you if you are a stockholder or warrant holder whose address is outside the United States or if you have an Army Post Office or a Fleet Post Office address. Instead, we will have the subscription agent hold the subscription rights certificates for your account. To exercise your subscription rights, you must notify the subscription agent prior to 11:00 a.m., Eastern Time, at least three business days prior to the expiration date, and establish to the satisfaction of the subscription agent that it is permitted to exercise your subscription rights under applicable law. If you do not follow these procedures in time, your rights will expire and will have no value. See [The Rights Offering](#) [Foreign Stockholders and Warrant holders](#).

When will I receive my new shares?

As soon as practicable after the closing of the rights offering, the subscription agent will arrange for the issuance of the shares of common stock purchased in the rights offering. Subject to state or foreign securities laws and regulations, we have the discretion to delay distribution of any shares you may have elected to purchase by exercise of your rights in order to comply with state or foreign securities laws.

How many shares of our common stock will be outstanding after the rights offering?

As of the record date, we had 12,025,309 shares of our common stock issued and outstanding. We plan to issue 5,000,000 shares of our common stock in the rights offering pursuant to our stockholders' and/or warrant holders' basic subscription privilege, their over-subscription privileges and Lambda Investors' intention, subject to the conditions described herein, to purchase any shares that are not subscribed for by our other stockholders and warrant holders.

Assuming all 5,000,000 shares offered are sold, no additional shares of our common stock are issued and no outstanding options or warrants are exercised prior to the completion of the rights offering, approximately 17,025,309 shares of our common stock will be outstanding immediately after the completion of the rights offering.

How much money will the company receive from the rights offering?

There is no minimum subscription requirement that must be met for us to close the rights offering. Assuming all the shares of common stock offered are sold, the gross proceeds from the rights offering will be \$3,000,000. It is estimated that the expenses of the rights offering will be \$250,000, and an estimated \$1,556,000 of the proceeds will be used to pay the principal, interest and fees associated with the note to Lambda Investors.

TABLE OF CONTENTS

Are there risks in exercising my subscription rights?

Yes. The exercise of your subscription rights involves substantial risks. Exercising your subscription rights involves the purchase of shares of our common stock. The purchase of shares should be considered as carefully as you would consider any other equity investment. Among other things, you should carefully consider the risks described under the heading "Risk Factors" in this prospectus.

If the rights offering is not completed, will my subscription payment be refunded to me?

Yes. The subscription agent will hold all funds it receives in a segregated bank account until completion of the rights offering. If the rights offering is not completed, all subscription payments received by the subscription agent will be returned, without interest or deduction, as soon as practicable. If you own shares in street name, it may take longer for you to receive payment because payments will be returned through the record holder of your shares.

Will the subscription rights be listed on a stock exchange or national market?

No. The subscription rights to purchase our common stock will not be listed for trading on any stock exchange or market or on the OTC Bulletin Board.

Will the rights offering affect the listing of the common stock?

No. Our common stock will continue to trade on the OTC Bulletin Board under the ticker symbol NEPH, and the shares of common stock issued in the rights offering will also be quoted on the OTC Bulletin Board under the same ticker symbol.

May stockholders and/or warrant holders in all states participate in the rights offering?

The issuance and exercise of subscription rights is subject to compliance with state securities laws and regulations. Although we intend to distribute the rights to all stockholders and warrant holders, we reserve the right in some states to require stockholders and warrant holders, if they wish to participate, to state and agree upon exercise of their respective rights that they are acquiring the shares for investment purposes only, and that they have no present intention to resell or transfer any shares acquired. This rights offering is not being made and our securities are not being offered in any jurisdiction where the offer is not permitted under applicable local laws. We have the right, in our sole discretion, to not effect registration or qualification of the subscription rights in any state or other jurisdiction, or take any other action required by any state or other jurisdiction to allow the offer to take place in that state or jurisdiction. If you reside in a state or other jurisdiction in which registration, qualification or other action is necessary with which we choose not to comply, you will not be eligible to participate in the rights offering.

What fees or charges apply if I purchase shares?

We are not charging any fee or sales commission to issue subscription rights to you or to issue shares to our stockholders upon the exercise subscription rights. If you exercise your subscription rights through the record holder of your shares, you are responsible for paying any fees your record holder may charge you.

What are the material U.S. federal income tax consequences of exercising subscription rights?

The receipt and exercise of subscription rights pursuant to the basic subscription privilege or the oversubscription privilege should generally not be taxable for U.S. federal income tax purposes. You should, however, seek specific tax advice from your tax advisor in light of your particular circumstances and as to the applicability and effect of any other tax laws. See Certain Material U.S. Federal Income Tax Considerations.

TABLE OF CONTENTS

To whom should I send my forms and payment?

If your shares are held in the name of a broker, dealer or other nominee, then you should send your subscription documents, rights certificate, and subscription payment to that record holder. If you are the record holder, then you should send your subscription documents, rights certificate, and subscription payment by hand delivery, first class mail or courier service to: Continental Stock Transfer & Trust Company, the subscription agent for the rights offering as follows:

Continental Stock Transfer & Trust Company
17 Battery Place, 8th Floor
New York, NY 10004
Attn: Reorganization Department

You also may submit payment by wire transfer of immediately available funds as follows:

JPMorgan Chase
ABA # 021-000021
Continental Stock Transfer & Trust Company as agent for Nephros, Inc.
Acct # 475-508351 FBO Nephros, Inc. Subscription

You are solely responsible for completing delivery to the subscription agent of your subscription documents, rights certificate and payment. We urge you to allow sufficient time for delivery of your subscription materials to the subscription agent.

What if I have other questions?

If you have any questions or need further information or assistance concerning the method of subscribing or about the rights offering, please contact Gerald J. Kochanski, our Chief Financial Officer, at (201) 343-5202, ext. 102.

TABLE OF CONTENTS

RISK FACTORS

An investment in our securities involves a high degree of risk. You should consider carefully the following information about these risks, together with the other information contained in this prospectus, before you decide whether to buy our securities. The occurrence of any of the following risks could have a material adverse effect on our business, financial condition and results of operations.

Risks Related to Our Company

Our independent registered public accounting firm, in its audit report related to our financial statements for the fiscal year ended December 31, 2012, expressed substantial doubt about our ability to continue as a going concern.

Our independent registered public accounting firm has included an explanatory paragraph in its report on our financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2012 expressing doubt as to our ability to continue as a going concern. The accompanying financial statements have been prepared assuming that we will continue as a going concern. However, there can be no assurance that we will be able to do so. Our recurring losses and difficulty in generating sufficient cash flow to meet our obligations and sustain our operations raise substantial doubt about our ability to continue as a going concern, and our consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty. Based on our current cash flow projections, we will need to raise additional funds through either the licensing or sale of our technologies or the additional public or private offerings of our securities. However, there is no guarantee that we will be able to obtain further financing, or do so on reasonable terms. If we are unable to raise additional funds on a timely basis, or at all, we would be materially adversely affected.

If we do not receive capital from the rights offering or from another source, we may be forced to cease operations.

We are in immediate need of capital. We expect that the \$1.3 million in proceeds from the senior secured note issued to Lambda Investors LLC will allow us to fund our operations through May 2013. If we do not successfully complete the rights offering by May 2013, we expect that we will not have sufficient resources to fund our operations and may be required to cease and wind down operations unless we can find another source of financing at such time, which we believe would be difficult and may not be possible on acceptable terms or at all.

Our secured note with Lambda Investors LLC affects our business operations and contains provisions which restrict our ability to execute certain strategic transactions

On February 4, 2013, we issued a senior secured note to Lambda Investors LLC in the principal amount of \$1.3 million. We expect that the proceeds from the note will allow us to fund our operations through May 2013. The note bears interest at the rate of 12% per annum and matures on August 4, 2013, at which time all principal and accrued interest will be due. If we do not pay principal and interest under the note when due, the interest rate increases to 16% per annum. The note is secured by a first priority lien on all of our property, including our intellectual property. In the event of a default, our outstanding indebtedness could become immediately due and payable and, if outstanding

indebtedness is not immediately satisfied from cash resources, Lambda could realize on the collateral to secure such indebtedness. Currently, we do not have sufficient cash to satisfy the indebtedness.

As long as indebtedness remains outstanding under the senior secured note with Lambda Investors LLC, we will be subject to certain covenants which, among other items, restrict our ability to merge with another company, sell a material amount of our assets, incur any additional indebtedness, repay any existing indebtedness, or declare or pay any dividends in cash, property or securities. These restrictions significantly impact our future alternatives to enter into strategic transactions and limit our ability to obtain additional or other financing because our assets have been pledged as collateral for repayment of our indebtedness. We have agreed to prepay amounts due under the note with the cash proceeds from (a) a rights offering and an offering of a discounted exercise price to public warrant holders, each as further described in the note, (b) any other equity or debt financing, or (c) the issuance or incurrence of any other indebtedness or the sale of any assets

TABLE OF CONTENTS

outside the ordinary course of business, in each case prior to the maturity date. In addition, the net proceeds of any offering, financing, asset disposition or other external liquidity generating transaction would need to be first applied to our existing indebtedness which, while reducing our level of indebtedness, cannot be assured to be sufficient for our continuing cash requirements and cash needs.

In the event that we default under the senior secured note or we are unable to repay the indebtedness when it becomes due, Lambda could foreclose on all of our property and assets. If this were to occur, our stockholders could lose all or a portion of their investment in the Company.

We have a history of operating losses and a significant accumulated deficit, and we may not achieve or maintain profitability in the future.

We have not been profitable since our inception in 1997. As of December 31, 2012, we had an accumulated deficit of approximately \$97,530,000, primarily as a result of historical operating losses. We expect to continue to incur additional losses for the foreseeable future as a result of a high level of operating expenses, significant up-front expenditures, including the cost of clinical trials, production and marketing activities and very limited revenue from the sale of our products. We began sales of our first product in March 2004, and we may never realize sufficient revenues from the sale of our products or be profitable. Each of the following factors, among others, may influence the timing and extent of our profitability, if any:

- the market acceptance of our technologies and products in each of our target markets;
- our ability to effectively and efficiently manufacture, market and distribute our products;
- our ability to sell our products at competitive prices which exceed our per unit costs; and
- our ability to continue to develop products and maintain a competitive advantage in our industry.

We face significant challenges in obtaining market acceptance of our products, which could adversely affect our potential sales and revenues.

Our products are new to the market, and we do not yet have an established market or customer base for our products. Acceptance of our products in the marketplace by both potential users, including chronic renal failure patients, and potential purchasers, including nephrologists, dialysis clinics and other health care providers, is uncertain, and our failure to achieve sufficient market acceptance will significantly limit our ability to generate revenue and be profitable. Market acceptance will require substantial marketing efforts and the expenditure of significant funds by us to inform dialysis patients and nephrologists, dialysis clinics and other health care providers of the benefits of using our products. We may encounter significant clinical and market resistance to our products and our products may never achieve market acceptance. We may not be able to build key relationships with physicians, clinical groups and government agencies, pursue or increase sales opportunities in Europe or elsewhere, or be the first to introduce hemodiafiltration therapy in the United States. Product orders may be cancelled, patients or customers currently using our products may cease to do so and patients or customers expected to begin using our products may not. Factors that may affect our ability to achieve acceptance of our chronic renal failure therapy products in the marketplace include whether:

- such products will be safe for use;
- such products will be effective;
- such products will be cost-effective;
- we will be able to demonstrate product safety, efficacy and cost-effectiveness;
- there are unexpected side effects, complications or other safety issues associated with such products; and
- government or third party reimbursement for the cost of such products is available at reasonable rates, if at all.

We have a history of operating losses and a significant accumulated deficit, and we may not achieve or maintain profitability in the future.

Acceptance of our water filtration products in the marketplace is also uncertain, and our failure to achieve sufficient market acceptance and sell such products at competitive prices will limit our ability to generate revenue and be profitable. Our water filtration products and technologies may not achieve expected

TABLE OF CONTENTS

reliability, performance and endurance standards. Our water filtration products and technology may not achieve market acceptance, including among hospitals, or may not be deemed suitable for other commercial, military, industrial or retail applications.

Many of the same factors that may affect our ability to achieve acceptance of our chronic renal failure therapy products in the marketplace will also apply to our water filtration products, except for those related to side effects, clinical trials and third party reimbursement.

If we are not able to successfully scale-up production of our products, then our sales and revenues will suffer.

In order to commercialize our products, we need to be able to produce them in a cost-effective way on a large scale to meet commercial demand, while maintaining extremely high standards for quality and reliability. If we fail to successfully commercialize our products, then we will not be profitable.

We expect to rely on a limited number of independent manufacturers to produce our products. Our manufacturers systems and procedures may not be adequate to support our operations and may not be able to achieve the rapid execution necessary to exploit the market for our products. Our manufacturers could experience manufacturing and control problems as they begin to scale-up our future manufacturing operations, if any, and we may not be able to scale-up manufacturing in a timely manner or at a commercially reasonable cost to enable production in sufficient quantities. If we experience any of these problems with respect to our manufacturers initial or future scale-ups of manufacturing operations, then we may not be able to have our products manufactured and delivered in a timely manner. Our products are new and evolving, and our manufacturers may encounter unforeseen difficulties in manufacturing them in commercial quantities or at all.

If we cannot develop adequate distribution, customer service and technical support networks, then we may not be able to market and distribute our products effectively and/or customers may decide not to order our products and, in either case, our sales and revenues will suffer.

Our strategy requires us to distribute our products and provide a significant amount of customer service and maintenance and other technical service. To provide these services, we have begun, and will need to continue, to develop a network of distribution and a staff of employees and independent contractors in each of the areas in which we intend to operate. We cannot assure that we will be able to organize and manage this network on a cost-effective basis. If we cannot effectively organize and manage this network, then it may be difficult for us to distribute our products and to provide competitive service and support to our customers, in which case customers may be unable, or decide not, to order our products and our sales and revenues will suffer.

We have limited experience selling our products to healthcare facilities, and we might be unsuccessful in increasing our sales.

Our business strategy depends in part on our ability to sell our products to hospitals and other healthcare facilities that include dialysis clinics. We have limited experience with respect to sales and marketing. If we are unsuccessful at manufacturing, marketing and selling our products, our operations and potential revenues will be materially adversely affected.

If we are not able to successfully scale-up production of our products, then our sales and revenues will suffer.

We cannot sell our products, including certain modifications thereto, until we obtain the requisite regulatory approvals and clearances in the countries in which we intend to sell our products. If we fail to receive, or experience a significant delay in receiving, such approvals and clearances, then we may not be able to get our products to market and enhance our revenues.

Our business strategy depends in part on our ability to get our products into the market as quickly as possible. We have obtained a Conformité Européene, or CE, mark, which demonstrates compliance with the relevant European Union requirements and is a regulatory prerequisite for selling our products in the European Union and certain other countries that recognize CE marking (collectively, European Community), for our OLpur mid dilution hemodiafilter series product and our Dual Stage Ultrafilter (DSU). We have not yet obtained the CE mark for any of our other products. Recently, we received clearance from the FDA to market our OLpur MD220 Hemodiafilter and OLpur H2H Module for use with a hemodialysis machine that provides

TABLE OF CONTENTS

ultrapure dialysate in accordance with current ANSI/AAMI/ISO standards, for the treatment of chronic renal failure patients. We have not yet begun to market these products in the U.S.

There is no assurance that any existing products that have not yet been approved, or any new products developed by us in the future, will be approved for marketing. The clearance and/or approval processes can be lengthy and uncertain and each requires substantial commitments of our financial resources and our management's time and effort. We may not be able to obtain further CE marking or regulatory approval for any of our existing or new products in a timely manner or at all. Even if we do obtain regulatory approval, approval may be only for limited uses with specific classes of patients, processes or other devices. Our failure to obtain, or delays in obtaining, the necessary regulatory clearance and/or approvals would prevent us from selling our affected products in the applicable regions. If we cannot sell some of our products in such regions, or if we are delayed in selling while waiting for the necessary clearance and/or approvals, our ability to generate revenues from these products will be limited.

We intend to market our products globally. Requirements pertaining to the sale of our products vary widely from country to country. It may be very expensive and difficult for us to meet the requirements for the sale of our products in many countries. As a result, we may not be able to obtain the required approvals in a timely manner, if at all. If we cannot sell our products in a particular region, then the size of our potential market could be reduced, which would limit our potential sales and revenues.

Clinical studies that may be required for our products are costly and time-consuming, and their outcome is uncertain.

Before obtaining regulatory approvals for the commercial sale of any of our products, other than those for which we have already received marketing approval in the United States and elsewhere, we must demonstrate through clinical studies that our products are safe and effective.

For products other than those for which we have already received marketing approval, if we do not prove in clinical trials that our products are safe and effective, we will not obtain marketing approvals from the applicable regulatory authorities. In particular, one or more of our products may not exhibit the expected medical benefits, may cause harmful side effects, may not be effective in treating dialysis patients or may have other unexpected characteristics that preclude regulatory approval for any or all indications of use or limit commercial use if approved. The length of time necessary to complete clinical trials varies significantly and is difficult to predict. Factors that can cause delay or termination of our clinical trials include:

- slower than expected patient enrollment due to the nature of the protocol, the proximity of subjects to clinical sites, the eligibility criteria for the study, competition with clinical trials for similar devices or other factors;
- lower than expected retention rates of subjects in a clinical trial;
- inadequately trained or insufficient personnel at the study site to assist in overseeing and monitoring clinical trials;
- delays in approvals from a study site's review board, or other required approvals;
- longer treatment time required to demonstrate effectiveness;
- lack of sufficient supplies of the product;
- adverse medical events or side effects in treated subjects; and
- lack of effectiveness of the product being tested.

Even if we obtain positive results from clinical studies for our products, we may not achieve the same success in future studies of such products. Data obtained from clinical studies are susceptible to varying interpretations that could delay, limit or prevent regulatory approval. In addition, we may encounter delays or rejections based upon changes in regulatory policy for device approval during the period of product development and regulatory review of each

Clinical studies that may be required for our products are costly and time-consuming, and their outcome is uncertain.

submitted new device application. Moreover, regulatory approval may entail limitations on the indicated uses of the device. Failure to obtain requisite governmental approvals or failure to obtain approvals of the scope requested will delay or preclude our licensees or marketing partners

TABLE OF CONTENTS

from marketing our products or limit the commercial use of such products and will have a material adverse effect on our business, financial condition and results of operations.

In addition, some or all of the clinical trials we undertake may not demonstrate sufficient safety and efficacy to obtain the requisite regulatory approvals, which could prevent or delay the creation of marketable products. Our product development costs will increase if we have delays in testing or approvals, if we need to perform more, larger or different clinical trials than planned or if our trials are not successful. Delays in our clinical trials may harm our financial results and the commercial prospects for our products. Additionally, we may be unable to complete our clinical trials if we are unable to obtain additional capital.

We may be required to design and conduct additional clinical trials.

We may be required to design and conduct additional clinical trials to further demonstrate the safety and efficacy of our products, which may result in significant expense and delay. Regulatory agencies may require new or additional clinical trials because of inconclusive results from current or earlier clinical trials, a possible failure to conduct clinical trials in complete adherence to certain regulatory standards, the identification of new clinical trial endpoints, or the need for additional data regarding the safety or efficacy of our products. It is possible that regulatory authorities may not ultimately approve our products for commercial sale in any jurisdiction, even if we believe future clinical results are positive.

We cannot assure you that our medically approved products will be safe and we are required under applicable law to report any product-related deaths or serious injuries or product malfunctions that could result in deaths or serious injuries, and such reports could trigger recalls, class action lawsuits and other events that could cause us to incur expenses and may also limit our ability to generate revenues from such products.

We cannot assure you that our medically approved products will be safe. Under the Food, Drug and Cosmetic Act (FDC Act), we are required to submit medical device reports, or MDRs, to the FDA to report device-related deaths, serious injuries and product malfunctions that could result in death or serious injury if they were to recur. Depending on their significance, MDRs could trigger events that could cause us to incur expenses and may also limit our ability to generate revenues from such products, such as the following:

information contained in the MDRs could trigger FDA regulatory actions such as inspections, recalls and patient/physician notifications;

because the reports are publicly available, MDRs could become the basis for private lawsuits, including class actions; and

if we fail to submit a required MDR to the FDA, the FDA could take enforcement action against us.

If any of these events occur, then we could incur significant expenses and it could become more difficult for us to gain market acceptance of our medically approved products and to generate revenues from sales. Other countries may impose analogous reporting requirements that could cause us to incur expenses and may also limit our ability to generate revenues from sales of our medically approved products.

Product liability associated with the production, marketing and sale of our products, and/or the expense of defending against claims of product liability, could materially deplete our assets and generate negative publicity which could impair our reputation.

The production, marketing and sale of kidney dialysis and water-filtration products have inherent risks of liability in the event of product failure or claim of harm caused by product operation. Furthermore, even meritless claims of product liability may be costly to defend against. Although we have acquired product liability insurance for our products, we may not be able to maintain or obtain this insurance on acceptable terms or at all. Because we may not be able to obtain insurance that provides us with adequate protection against all potential product liability claims, a successful claim in excess of our insurance coverage could materially deplete our assets. Moreover, even if we are able to obtain adequate insurance, any claim against us could generate negative publicity, which could impair our reputation and adversely affect the demand for our products, our ability to generate sales and our profitability.

TABLE OF CONTENTS

Some of the agreements that we may enter into with manufacturers of our products and components of our products may require us:

to obtain product liability insurance; or
to indemnify manufacturers against liabilities resulting from the sale of our products.

For example, the agreement with our contract manufacturer, or CM, requires that we obtain and maintain certain minimum product liability insurance coverage and that we indemnify our CM against certain liabilities arising out of our products that they manufacture, provided they do not arise out of our CM's breach of the agreement, negligence or willful misconduct. If we are not able to obtain and maintain adequate product liability insurance, then we could be in breach of these agreements, which could materially adversely affect our ability to produce our products and generate revenues. Even if we are able to obtain and maintain product liability insurance, if a successful claim in excess of our insurance coverage is made, then we may have to indemnify some or all of our manufacturers for their losses, which could materially deplete our assets.

If we violate any provisions of the FDC Act or any other statutes or regulations, then we could be subject to enforcement actions by the FDA or other governmental agencies.

We face a significant compliance burden under the FDC Act and other applicable statutes and regulations which govern the testing, labeling, storage, record keeping, distribution, sale, marketing, advertising and promotion of our medically approved products. If we violate the FDC Act or other regulatory requirements at any time during or after the product development and/or approval process, we could be subject to enforcement actions by the FDA or other agencies, including:

fines;
injunctions;
civil penalties;
recalls or seizures of products;
total or partial suspension of the production of our products;
withdrawal of any existing approvals or pre-market clearances of our products;
refusal to approve or clear new applications or notices relating to our products;
recommendations that we not be allowed to enter into government contracts; and
criminal prosecution.

Any of the above could have a material adverse effect on our business, financial condition and results of operations.

Significant additional governmental regulation could subject us to unanticipated delays which would adversely affect our sales and revenues.

Our business strategy depends in part on our ability to get our products into the market as quickly as possible. Additional laws and regulations, or changes to existing laws and regulations that are applicable to our business may be enacted or promulgated, and the interpretation, application or enforcement of the existing laws and regulations may change. We cannot predict the nature of any future laws, regulations, interpretations, applications or enforcements or the specific effects any of these might have on our business. Any future laws, regulations, interpretations, applications or enforcements could delay or prevent regulatory approval or clearance of our products and our ability to market our products. Moreover, changes that result in our failure to comply with the requirements of applicable laws and regulations could result in the types of enforcement actions by the FDA and/or other agencies as described above, all

If we violate any provisions of the FDC Act or any other statutes or regulations, then we could be subject to enforcement

of which could impair our ability to have manufactured and to sell the affected products.

TABLE OF CONTENTS

Protecting our intellectual property in our technology through patents may be costly and ineffective. If we are not able to adequately secure or enforce protection of our intellectual property, then we may not be able to compete effectively and we may not be profitable.

Our future success depends in part on our ability to protect the intellectual property for our technology through patents. We will only be able to protect our products and methods from unauthorized use by third parties to the extent that our products and methods are covered by valid and enforceable patents or are effectively maintained as trade secrets. Our 16 granted U.S. patents will expire at various times from 2018 to 2026, assuming they are properly maintained.

The protection provided by our patents, and patent applications if issued, may not be broad enough to prevent competitors from introducing similar products into the market. Our patents, if challenged or if we attempt to enforce them, may not necessarily be upheld by the courts of any jurisdiction. Numerous publications may have been disclosed by, and numerous patents may have been issued to, our competitors and others relating to methods and devices for dialysis of which we are not aware and additional patents relating to methods and devices for dialysis may be issued to our competitors and others in the future. If any of those publications or patents conflict with our patent rights, or cover our products, then any or all of our patent applications could be rejected and any or all of our granted patents could be invalidated, either of which could materially adversely affect our competitive position.

Litigation and other proceedings relating to patent matters, whether initiated by us or a third party, can be expensive and time-consuming, regardless of whether the outcome is favorable to us, and may require the diversion of substantial financial, managerial and other resources. An adverse outcome could subject us to significant liabilities to third parties or require us to cease any related development, product sales or commercialization activities. In addition, if patents that contain dominating or conflicting claims have been or are subsequently issued to others and the claims of these patents are ultimately determined to be valid, then we may be required to obtain licenses under patents of others in order to develop, manufacture, use, import and/or sell our products. We may not be able to obtain licenses under any of these patents on terms acceptable to us, if at all. If we do not obtain these licenses, we could encounter delays in, or be prevented entirely from using, importing, developing, manufacturing, offering or selling any products or practicing any methods, or delivering any services requiring such licenses.

If we file patent applications or obtain patents in foreign countries, we will be subject to laws and procedures that differ from those in the United States. Such differences could create additional uncertainty about the level and extent of our patent protection. Moreover, patent protection in foreign countries may be different from patent protection under U.S. laws and may not be as favorable to us. Many non-U.S. jurisdictions, for example, prohibit patent claims covering methods of medical treatment of humans, although this prohibition may not include devices used for such treatment.

If we are not able to secure and enforce protection of our trade secrets through enforcement of our confidentiality and non-competition agreements, then our competitors may gain access to our trade secrets, we may not be able to compete effectively and we may not be profitable. Such protection may be costly and ineffective.

We attempt to protect our trade secrets, including the processes, concepts, ideas and documentation associated with our technologies, through the use of confidentiality agreements and non-competition agreements with our current employees and with other parties to whom we have divulged such trade secrets. If these employees or other parties breach our confidentiality agreements and non-competition agreements, or if these agreements are not sufficient to protect our technology or are found to be unenforceable, then our competitors could acquire and use information that we consider to be our trade secrets and we may not be able to compete effectively. Policing unauthorized use of our trade secrets is difficult and expensive, particularly because of the global nature of our operations. The laws of other countries may not adequately protect our trade secrets.

TABLE OF CONTENTS

If we are not able to maintain sufficient quality controls, then the approval or clearance of our products by the European Union, the FDA or other relevant authorities could be withdrawn, delayed or denied and our sales and revenues will suffer.

Approval or clearance of our products could be withdrawn, delayed or denied by the European Union, the FDA and the relevant authorities of other countries if our manufacturing facilities do not comply with their respective manufacturing requirements. The European Union imposes requirements on quality control systems of manufacturers, which are inspected and certified on a periodic basis and may be subject to additional unannounced inspections. Failure by our manufacturers to comply with these requirements could prevent us from marketing our products in the European Community. The FDA also imposes requirements through quality system requirements, or QSR, regulations, which include requirements for good manufacturing practices, or GMP. Failure by our manufacturers to comply with these requirements could prevent us from obtaining FDA approval of our products and from marketing such products in the United States. Although the manufacturing facilities and processes that we use to manufacture our OLpur MDHDF filter series have been inspected and certified by a worldwide testing and certification agency (also referred to as a notified body) that performs conformity assessments to European Union requirements for medical devices, they have not been inspected by the FDA. A notified body is a group accredited and monitored by governmental agencies that inspects manufacturing facilities and quality control systems at regular intervals and is authorized to carry out unannounced inspections. We cannot be sure that any of the facilities or processes we use will comply or continue to comply with their respective requirements on a timely basis or at all, which could delay or prevent our obtaining the approvals we need to market our products in the European Community and the United States.

To market our products in the European Community, the United States and other countries, where approved, manufacturers of such products must continue to comply or ensure compliance with the relevant manufacturing requirements. Although we cannot control the manufacturers of our products, we may need to expend time, resources and effort in product manufacturing and quality control to assist with their continued compliance with these requirements. If violations of applicable requirements are noted during periodic inspections of the manufacturing facilities of our manufacturers, then we may not be able to continue to market the products manufactured in such facilities and our revenues may be materially adversely affected.

We may face significant risks associated with international operations, which could have a material adverse effect on our business, financial condition and results of operations.

We expect to manufacture and to market our products globally. Our international operations are subject to a number of risks, including the following:

fluctuations in exchange rates of the United States dollar could adversely affect our results of operations;
we may face difficulties in enforcing and collecting accounts receivable under some countries' legal systems;
local regulations may restrict our ability to sell our products, have our products manufactured or conduct other operations;

political instability could disrupt our operations;
some governments and customers may have longer payment cycles, with resulting adverse effects on our cash flow;
and

some countries could impose additional taxes or restrict the import of our products.

If we are not able to maintain sufficient quality controls, then the approval or clearance of our products by the European Union, the FDA or other relevant authorities could be withdrawn, delayed or denied and our sales and revenues will suffer.

Any one or more of these factors could increase our costs, reduce our revenues, or disrupt our operations, which could have a material adverse effect on our business, financial condition and results of operations.

TABLE OF CONTENTS

Risks Related to the Rights Offering

The rights offering may reduce your percentage ownership in the Company.

If you own stock and no warrants of the Company, even if you fully exercise your basic subscription privilege, you may experience dilution to your percentage ownership of our outstanding shares of common stock (but excluding the effect of the warrants) as a result of the rights offering. Current stockholders may be diluted on an actual basis even if they exercise their basic subscription privilege to the extent that warrant holders fully or partially exercise their subscription privileges.

If you choose not to exercise your subscription rights, you will retain your current number of shares of common stock and/or warrants. However, if you choose not to exercise your subscription rights and all of the shares offered are sold to other stockholders and/or warrant holders, you will experience significant dilution in your percentage ownership and voting rights in our company.

Lambda Investors will continue to be able to exercise substantial control over matters requiring stockholder approval upon completion of the rights offering and will likely increase its ownership percentage.

As of the record date, Lambda Investors beneficially owned approximately 53.0% of the outstanding shares of our common stock (which includes warrants to purchase an aggregate of 11,589,152 shares of our common stock). Subject to the satisfaction of certain conditions described herein, Lambda Investors has advised us that it intends to exercise its basic subscription privilege in full and to purchase any shares of common stock that are not subscribed for by our other stockholders in the rights offering, if any. See *The Rights Offering Background of the Rights Offering Participation of Lambda Investors*. Lambda Investors may acquire, through the exercise of its basic subscription privilege and over-subscription privilege, as many shares of our common stock as it chooses up to an aggregate of all of the shares offered in the rights offering. As a result, it is likely that Lambda will substantially increase its percentage ownership of the Company both on an actual and fully-diluted basis.

Even assuming a successful completion of the rights offering, we may need additional capital in the future.

If we raise \$3,000,000 in gross proceeds from the rights offering, we expect that we will be able to operate through the first quarter of 2014. However, we cannot assure you that we will be able to operate until that time. After the proceeds from the rights offering are exhausted, we will likely need additional capital. There can be no assurance that we will be able to raise additional capital at that time. If we are unable to raise capital when needed, we may not be able to execute our business strategy and accomplish our objectives, we may be forced to cease operations, and you will lose all or some part of your investment in our company.

The subscription price determined for the rights offering is not an indication of the fair value of our common stock.

As a condition to making the loan, Lambda Investors required that we undertake a rights offering to raise additional funds to meet our ongoing financial requirements and to repay the loan. In its loan proposal, Lambda Investors specified a rights offering of 5,000,000 shares of our common stock, and that it be made at a subscription price of

\$0.60 per share to encourage our other stockholders to participate. The loan and the rights offering, as proposed by Lambda Investors, including the \$0.60 per share subscription price, were approved by a special committee of our independent directors (none of whom are affiliated with Lambda Investors) after consideration of the financing alternatives available to us.

The special committee considered, among other things, that we are not currently in a position to attract an outside investor or investors with a stock offering at a more favorable discount to the current trading price of our stock. The \$0.60 per share subscription price is not necessarily related to our book value, net worth or any other established criteria of value and may or may not be considered the fair value of our common stock being offered in the rights offering. We did not consult with any financial or other advisor in determining the subscription price. After the date of this prospectus, our common stock may trade at prices above or below the subscription price.

TABLE OF CONTENTS

The market price of our common stock is volatile and may decline before or after the subscription rights expire.

The market price of our common stock could be subject to wide fluctuations in response to numerous factors, some of which are beyond our control. Once you exercise your subscription rights, you may not revoke them. We cannot assure you that the market price of our common stock will not decline after you elect to exercise your subscription rights. If you exercise your subscription rights and, afterwards, the public trading market price of our common stock decreases below the subscription price, you will have committed to buying shares of our common stock at a price above the prevailing market price and could have an immediate unrealized loss. Our common stock is quoted on the OTC Bulletin Board under the ticker symbol NEPH, and the last reported sales price of our common stock on the OTC Bulletin Board on April 4, 2013 was \$0.85 per share. Moreover, we cannot assure you that following the exercise of your subscription rights you will be able to sell your common stock at a price equal to or greater than the subscription price. Until shares are delivered upon expiration of the rights offering, you will not be able to sell the shares of our common stock that you purchase in the rights offering.

Our management will have broad discretion over the use of the net proceeds from the rights offering; you may not agree with how we use the proceeds, and we may not invest the proceeds successfully.

We must first use proceeds from the rights to repay the \$1,300,000 loan from Lambda Investors, plus all accrued interest thereon, as well as an 8% sourcing/transaction fee (\$104,000) in respect of the loan and an aggregate of \$100,000 for reimbursement of Lambda Investors' legal fees incurred in connection with the loan and the rights offering. We intend to use the remaining net proceeds, if any, for general corporate purposes, including working capital and operating expenses. Pending the application of any remaining net proceeds for these purposes, we intend to invest them generally in short-term, investment-grade, interest-bearing securities. Market factors may require our management to allocate portions of the proceeds for other purposes. Accordingly, you will be relying on the judgment of our management with regard to the use proceeds from the rights offering, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. It is possible that the proceeds will be invested in a way that does not yield a favorable, or any, return for us.

We may cancel the rights offering at any time prior to the expiration of the rights offering, and neither we nor the subscription agent will have any obligation to you except to return your subscription payments.

We may, in our sole discretion, decide to cancel the rights offering prior to the expiration of the rights offering. If the rights offering is cancelled, all subscription payments received by the subscription agent will be returned, without interest or deduction, as soon as practicable.

If you do not act promptly and follow the subscription instructions, your exercise of subscription rights will be rejected.

Stockholders and warrant holders wishing to purchase shares in the rights offering must act promptly to ensure that all required forms and payments are actually received by the subscription agent prior to the expiration of the rights offering at 5:00 p.m., Eastern Time, on May 17, 2013. If you are a beneficial owner of shares, you must act promptly to ensure that your broker, dealer, custodian bank or other nominee acts for you and that all required forms and

The market price of our common stock is volatile and may decline before or after the subscription rights expire.

payments are actually received by the subscription agent prior to the expiration of the subscription period. We are not responsible if your broker, dealer, custodian bank or nominee fails to ensure that all required forms and payments are actually received by the subscription agent prior to the expiration of the subscription period. If you fail to complete and sign the required subscription forms, send an incorrect payment amount or otherwise fail to follow the subscription procedures that apply to your exercise in the rights offering prior to the expiration of the subscription period, the subscription agent may, depending on the circumstances, reject your subscription or accept it only to the extent of the payment received. Neither we nor the subscription agent will undertake to contact you concerning an incomplete or incorrect subscription form or payment, nor are we under any obligation to correct such forms or payment. We have the sole discretion to determine whether a subscription exercise properly complies with the subscription procedures.

TABLE OF CONTENTS

You will not receive interest on subscription funds, including any funds ultimately returned to you.

You will not earn any interest on your subscription funds while they are being held by the subscription agent pending the closing of this rights offering. In addition, if we cancel the rights offering, or if you exercise your over-subscription privilege and are not allocated all of the shares for which you over-subscribe, neither we nor the subscription agent will have any obligation with respect to the subscription rights except to return, without interest, any subscription payments to you.

Risks Related to Owning Our Common Stock

There currently is a limited trading market for our Common Stock.

Our Common Stock currently does not meet all of the requirements for initial listing on a registered stock exchange. Our Common Stock is quoted on the OTC Bulletin Board. Trading in our Common Stock on the OTC Bulletin Board has been very limited. As a result, an investor may find it difficult to dispose of or to obtain accurate quotations as to the market value of our Common Stock, and our Common Stock may be less attractive for margin loans, for investment by financial institutions, as consideration in future capital raising transactions or other purposes. There is no guarantee that we will ever become listed on the Nasdaq Capital Market, or any other exchange, or that a liquid trading market for our Common Stock will develop.

Our Common Stock could be further diluted as a result of the issuance of additional shares of Common Stock, warrants or options.

In the past we have issued Common Stock and warrants in order to raise money. We have also issued stock options as compensation for services and incentive compensation for our employees, directors and consultants. We have shares of Common Stock reserved for issuance upon the exercise of certain of these securities and may increase the shares reserved for these purposes in the future. Our issuance of additional Common Stock, convertible securities, options and warrants could affect the rights of our stockholders, could reduce the market price of our Common Stock or could result in adjustments to exercise prices of outstanding warrants (resulting in these securities becoming exercisable for, as the case may be, a greater number of shares of our Common Stock), or could obligate us to issue additional shares of Common Stock.

Market sales of large amounts of our Common Stock, or the potential for those sales even if they do not actually occur, may have the effect of depressing the market price of our Common Stock, the supply of Common Stock available for resale could be increased which could stimulate trading activity and cause the market price of our Common Stock to drop, even if our business is doing well. Furthermore, the issuance of any additional shares of our Common Stock or securities convertible into our Common Stock could be substantially dilutive to holders of our Common Stock if they do not invest in future offerings.

As previously disclosed, we expect to commence a rights offering in March 2013. Holders of our common stock and public warrants that choose not to fully exercise their basic subscription privilege will be diluted as a result of the rights offering if other shareholders fully exercise their basic subscription privilege, and such affected holders' voting and other rights will likewise be diluted.

The prices at which shares of the Common Stock trade have been and will likely continue to be volatile.

In the two years ended December 31, 2012, our Common Stock has traded at prices ranging from a high of \$3.19 to a low of \$0.40 per share, after giving effect to the 1:20 reverse stock split effected on March 11, 2011. Due to the lack of an active trading market for our Common Stock, you should expect the prices at which our Common Stock might trade to continue to be highly volatile. The expected volatile price of our stock will make it difficult to predict the value of your investment, to sell your shares at a profit at any given time, or to plan purchases and sales in advance. A variety of other factors might also affect the market price of our Common Stock. These include, but are not limited to:

achievement or rejection of regulatory approvals by our competitors or us;
publicity regarding actual or potential clinical or regulatory results relating to products under development by our competitors or us;
delays or failures in initiating, completing or analyzing clinical trials or the unsatisfactory design or results of these trials;

26

TABLE OF CONTENTS

announcements of technological innovations or new commercial products by our competitors or us;
developments concerning proprietary rights, including patents;
regulatory developments in the United States and foreign countries;
economic or other crises and other external factors;
period-to-period fluctuations in our results of operations;
threatened or actual litigation;
changes in financial estimates by securities analysts; and
sales of our Common Stock.

We are not able to control many of these factors, and we believe that period-to-period comparisons of our financial results will not necessarily be indicative of our future performance.

In addition, the stock market in general, and the market for biotechnology companies in particular, has experienced extreme price and volume fluctuations in recent years that might have been unrelated or disproportionate to the operating performance of individual companies. These broad market and industry factors might seriously harm the market price of our Common Stock, regardless of our operating performance. Securities class action litigation has often been instituted against companies following periods of volatility in the overall market and in the market price of a company's securities. This litigation, if instituted against us, could result in very substantial costs, divert our management's attention and resources and harm our business, operating results and financial condition.

We have never paid dividends and do not intend to pay cash dividends.

We have never paid dividends on our Common Stock and currently do not anticipate paying cash dividends on our Common Stock for the foreseeable future. Consequently, any returns on an investment in our Common Stock in the foreseeable future will have to come from an increase in the value of the stock itself. As noted above, the lack of an active trading market for our Common Stock will make it difficult to value and sell our Common Stock. While our dividend policy will be based on the operating results and capital needs of our business, it is anticipated that all earnings, if any, will be retained to finance our future operations.

Because we are subject to the penny stock rules, you may have difficulty in selling our Common Stock.

Our Common Stock is subject to regulations of the SEC relating to the market for penny stocks. Penny stock, as defined by the Penny Stock Reform Act, is any equity security not traded on a national securities exchange that has a market price of less than \$5.00 per share. The penny stock regulations generally require that a disclosure schedule explaining the penny stock market and the risks associated therewith be delivered to purchasers of penny stocks and impose various sales practice requirements on broker-dealers who sell penny stocks to persons other than established customers and accredited investors. The broker-dealer must make a suitability determination for each purchaser and receive the purchaser's written agreement prior to the sale. In addition, the broker-dealer must make certain mandated disclosures, including the actual sale or purchase price and actual bid offer quotations, as well as the compensation to be received by the broker-dealer and certain associated persons. The regulations applicable to penny stocks may severely affect the market liquidity for your Common Stock and could limit your ability to sell your securities in the secondary market.

Several provisions of the Delaware General Corporation Law, our fourth amended and restated certificate of incorporation, as amended, and our second amended and restated bylaws could discourage, delay or prevent a

**merger or acquisition, which could adversely affect the market price of our
Common Stock.**

Several provisions of the Delaware General Corporation Law, our fourth amended and restated certificate of incorporation, as amended, and our second amended and restated bylaws could discourage, delay or prevent a merger or acquisition that stockholders may consider favorable, and the market price of our Common Stock could be reduced as a result. These provisions include:

authorizing our board of directors to issue blank check preferred stock without stockholder approval;

27

TABLE OF CONTENTS

providing for a classified board of directors with staggered, three-year terms;
prohibiting us from engaging in a business combination with an interested stockholder for a period of three years after the date of the transaction in which the person became an interested stockholder unless certain provisions are met;
prohibiting cumulative voting in the election of directors;
limiting the persons who may call special meetings of stockholders; and
establishing advance notice requirements for nominations for election to our board of directors or for proposing matters that can be acted on by stockholders at stockholder meetings.

As a smaller reporting company with little or no name recognition and with several risks and uncertainties that could impair our business operations, we are not likely to generate widespread interest in our Common Stock. Without widespread interest in our Common Stock, our Common Stock price may be highly volatile and an investment in our Common Stock could decline in value.

Unlike many companies with publicly traded securities, we have little or no name recognition in the investment community. We are a relatively new company and very few investors are familiar with either our company or our products. We do not have an active trading market in our Common Stock, and one might never develop, or if it does develop, might not continue.

Additionally, the market price of our Common Stock may fluctuate significantly in response to many factors, many of which are beyond our control. Risks and uncertainties, including those described elsewhere in this Risk Factors section could impair our business operations or otherwise cause our operating results or prospects to be below expectations of investors and market analysts, which could adversely affect the market price of our Common Stock. As a result, investors in our Common Stock may not be able to resell their shares at or above their purchase price and could lose all of their investment.

Securities class action litigation is often brought against public companies following periods of volatility in the market price of such company's securities. We may become subject to this type of litigation in the future. Litigation of this type could be extremely expensive and divert management's attention and resources from running our company.

If we fail to maintain an effective system of internal controls over financial reporting, we may not be able to accurately report our financial results, which could have a material adverse effect on our business, financial condition and the market value of our securities.

Effective internal controls over financial reporting are necessary for us to provide reliable financial reports. If we cannot provide reliable financial reports, our reputation and operating results may be harmed.

If management is unable to express a favorable opinion on the effectiveness of our internal controls, we could lose investor confidence in the accuracy and completeness of our financial reports. Any failure to achieve and maintain effective internal controls could have an adverse effect on our business, financial position and results of operations.

Our directors, executive officers and Lambda Investors LLC control a significant portion of our stock and, if they choose to vote together, could have sufficient voting power to control the vote on substantially all corporate

As a smaller reporting company with little or no name recognition and with several risks and uncertainties that could

matters.

As of December 31, 2012, our directors, executive officers and Lambda Investors LLC, our largest stockholder, beneficially owned approximately 31% of our outstanding Common Stock, representing approximately 55% on a fully-diluted basis. In connection with the rights offering, holders of our common stock and public warrants that choose not to fully exercise their basic subscription privilege will be diluted as a result of the rights offering if Lambda fully exercises its subscription privilege, and, consequently, such affected holders' voting and other rights will likewise be diluted. If our stockholders do not exercise their subscription privilege in full, and Lambda elects to purchase such shares in the rights offering by exercising an oversubscription right, Lambda would increase its ownership percentage and obtain greater voting power.

TABLE OF CONTENTS

As a result of this ownership, Lambda Investors has the ability to exert significant influence over our policies and affairs, including the election of directors. Lambda Investors, whether acting alone or acting with other stockholders, could have the power to elect all of our directors and to control the vote on substantially all other corporate matters without the approval of other stockholders. Furthermore, such concentration of voting power could enable Lambda Investors, whether acting alone or acting with other stockholders, to delay or prevent another party from taking control of our company even where such change of control transaction might be desirable to other stockholders. The interests of Lambda Investors in any matter put before the stockholders may differ from those of any other stockholder.

Future sales of our Common Stock could cause the market price of our Common Stock to decline.

The market price of our Common Stock could decline due to sales of a large number of shares in the market, including sales of shares by Lambda Investors or any other large stockholder, or the perception that such sales could occur.

These sales could also make it more difficult or impossible for us to sell equity securities in the future at a time and price that we deem appropriate to raise funds through future offerings of Common Stock. Future sales of our Common Stock by stockholders could depress the market price of our Common Stock.

Shares eligible for future sale may adversely affect the market.

From time to time, certain of our stockholders may be eligible to sell all or some of their shares of Common Stock by means of ordinary brokerage transactions in the open market pursuant to Rule 144 promulgated under the Securities Act, subject to certain limitations. In general, pursuant to Rule 144, non-affiliate stockholders may sell freely after holding their shares for six months and affiliates may sell freely after holding their shares for one year, in each case, subject to current public information, notice and other requirements. Any substantial sales of our Common Stock pursuant to Rule 144 may have a material adverse effect on the market price of our Common Stock.

TABLE OF CONTENTS

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements in this prospectus constitute forward-looking statements. Such statements include statements regarding the efficacy and intended use of our technologies under development, the timelines for bringing such products to market and the availability of funding sources for continued development of such products and other statements that are not historical facts, including statements which may be preceded by the words intends, may, will, plans, expects, anticipates, projects, predicts, estimates, aims, believes, hopes, potential or Forward-looking statements are not guarantees of future performance are based on certain assumptions and are subject to various known and unknown risks and uncertainties, many of which are beyond our control. Actual results may differ materially from the expectations contained in the forward-looking statements. Factors that may cause such differences include, but are not limited to, the risks that:

- we may not be able to continue as a going concern;
- we may not be able to obtain funding if and when needed or on terms favorable to us in order to continue operations;
- a default under the terms of the secured note with Lambda Investors would result in the lender foreclosing upon substantially all of our assets and could result in our inability to continue business operations;
- we may not be able to complete the contemplated rights offering which could result in our inability to continue business operations;
- even if we are able to complete the rights offering, we may not have sufficient capital to successfully implement our business plan;
- restrictions in the secured note and related security agreement which require the prior consent of the lender may restrict our ability to operate our business, sell the company or sell our assets;
- we may not be able to effectively market our products;
- we may not be able to sell our water filtration products or chronic renal failure therapy products at competitive prices or profitably;
- we may encounter problems with our suppliers and manufacturers;
- we may encounter unanticipated internal control deficiencies or weaknesses or ineffective disclosure controls and procedures;
- we may not obtain appropriate or necessary regulatory approvals to achieve our business plan;
- products that appeared promising to us in research or clinical trials may not demonstrate anticipated efficacy, safety or cost savings in subsequent pre-clinical or clinical trials;
- we may not be able to secure or enforce adequate legal protection, including patent protection, for our products; and
- we may not be able to achieve sales growth in key geographic markets.

More detailed information about the Company and the risk factors that may affect the realization of forward-looking statements, including the forward-looking statements in this prospectus, is set forth in our filings with the SEC, including our other periodic reports filed with the SEC. We urge you to read those documents free of charge at the SEC's web site at www.sec.gov. We do not undertake to publicly update or revise our forward-looking statements as a result of new information, future events or otherwise, except as required by law.

USE OF PROCEEDS

Assuming all the shares offered are sold, the gross proceeds from the rights offering will be \$3,000,000, with net proceeds, after deducting estimated offering expenses of \$250,000, of approximately \$2,750,000. We

TABLE OF CONTENTS

are conducting the rights offering in part to raise capital for our operations. Without additional capital, we currently anticipate that we will not be able to continue our operations beyond May 2013.

We are obligated to use proceeds from the rights offering to repay the \$1,300,000 loan from Lambda Investors, plus all accrued interest thereon, as well as an 8% sourcing/transaction fee (\$104,000) in respect of the loan and an aggregate of \$100,000 for reimbursement of Lambda Investors' legal fees incurred in connection with the loan and the rights offering. The terms of the Lambda Investors note are discussed in more detail under the heading "The Rights Offering - Background for the Rights Offering - Loan from Lambda Investors." We intend to use the remaining net proceeds, if any, for general corporate purposes, including working capital and operating expenses. Pending the application of any remaining net proceeds for these purposes, we intend to invest them generally in short-term, investment-grade, interest-bearing securities.

Our management will retain broad discretion in the allocation of the net proceeds of this offering.

DETERMINATION OF OFFERING PRICE

As a condition to making the loan, Lambda Investors required that we undertake a rights offering to raise additional funds to meet our ongoing financial requirements and to repay the loan. In its loan proposal, Lambda Investors specified a rights offering of 5,000,000 shares of our common stock, and that it be made at a subscription price of \$0.60 per share to encourage our other stockholders to participate. The loan and the rights offering, as proposed by Lambda Investors, including the \$0.60 per share subscription price, were approved by a special committee of our independent directors (none of whom are affiliated with Lambda Investors) after consideration of the financing alternatives available to us.

The \$0.60 per share subscription price is not necessarily related to our book value, net worth or any other established criteria of value and may or may not be considered the fair value of our common stock included in the shares being offered in the rights offering. We did not consult with any financial or other advisor in determining the subscription price.

After the date of this prospectus, our common stock may trade at prices above or below the subscription price. The subscription price does not necessarily bear any relationship to any established criteria for value. You should not consider the subscription price as an indication of value of our company or our common stock. You should not assume or expect that, after the rights offering, our shares of common stock will trade at or above the subscription price in any given time period. The market price of our common stock may decline during or after the rights offering, and you may not be able to sell the shares of our common stock purchased during the rights offering at a price equal to or greater than the subscription price. You should obtain a current quote for our common stock before exercising your subscription rights and make your own assessment of our business and financial condition, our prospects for the future, and the terms of this rights offering. On April 4, 2013, the closing sale price of our common stock on the OTC Bulletin Board was \$ \$0.85 per share.

DILUTION

If you invest in our common stock in this offering, your ownership interest will be diluted to the extent of the difference between the \$0.60 offering price per share and the pro forma net tangible book value per share. Our historical net tangible book value (deficit) as of December 31, 2012 was approximately \$(595,000), or approximately \$(0.05) per share. Historical net tangible book value per share is determined by dividing our net tangible book value

by the actual number of outstanding shares of common stock. Dilution in historical net tangible book value per share represents the difference between the amount per share paid by the purchaser of shares of common stock in this offering and the pro forma net tangible book value per share of common stock immediately after the closing of this offering.

After giving effect to the assumed sale of 5,000,000 shares in the rights offering, with an offering price of \$0.60 per share, and after deducting estimated offering expenses payable by us of \$250,000, our pro forma net tangible book value as of December 31, 2012 would have been approximately \$2,155,000, or \$0.13 per share of common stock. This would represent dilution of \$0.47 per share for each share purchased in the offering.

The shares outstanding as of December 31, 2012 used to calculate the information in this section exclude the following items:

31

TABLE OF CONTENTS

2,294,714 shares issuable upon the exercise of stock options outstanding on December 31, 2012; and
14,679,971 shares issuable upon the exercise of warrants outstanding on December 31, 2012.

DIVIDEND POLICY

We have neither paid nor declared dividends on our common stock since our inception. We do not anticipate paying any dividends on our common stock in the foreseeable future. We expect to retain future earnings, if any, for use in our development activities and the operation of our business. The payment of any future dividends will be subject to the discretion of our board of directors and will depend, among other things, upon our results of operations, financial condition, cash requirements, prospects and other factors that our board of directors may deem relevant. Additionally, our ability to pay future dividends may be restricted by the terms of any debt financing, tax considerations and applicable law.

CAPITALIZATION

The following table sets forth our historical and pro forma cash and cash equivalents and capitalization as of December 31, 2012. The pro forma information gives effect to as assumed \$3,000,000 equity raise from this rights offering and the \$1,300,000 loan from Lambda Investors. For purposes of this table, we have assumed that the rights offering is fully subscribed, resulting in \$3,000,000 in gross proceeds. This table should be read in conjunction with our consolidated financial statements and the notes thereto included in this prospectus.

| | December 31, 2012 | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------------|
| | Actual | Pro Forma ⁽¹⁾ |
| Cash and cash equivalents | \$47,000 | \$2,797,000 |
| Accounts payable and accrued expenses | \$1,391,000 | \$1,391,000 |
| License and supply fee payable | \$1,318,000 | \$1,318,000 |
| Deferred revenue | \$1,414,000 | \$1,414,000 |
| Promissory note ⁽²⁾ | \$0 | \$1,300,000 |
| Total liabilities | \$4,123,000 | \$5,423,000 |
| Stockholders' equity: | | |
| Preferred stock, \$0.001 par value: 5,000,000 shares authorized on an actual and pro forma basis; no shares issued and outstanding on an actual and pro forma basis | \$0 | \$0 |
| Common stock, \$0.001 par value: 90,000,000 and 90,000,000 shares authorized on an actual and pro forma basis; 11,949,824 and 16,949,824 shares issued and outstanding on an actual and pro forma basis ⁽³⁾ | \$12,000 | \$16,000 |
| Additional paid-in capital | \$96,847,000 | \$99,593,000 |
| Accumulated other comprehensive income | \$76,000 | \$76,000 |
| Accumulated deficit | \$(97,530,000) | \$(97,530,000) |
| Total stockholders' equity | \$(595,000) | \$2,155,000 |
| Total capitalization | \$3,528,000 | \$7,575,000 |

(1) Gives pro forma effect to \$3,000,000 of gross proceeds from the rights offering, less \$250,000 of offering costs.

(2) Gives pro forma effect to \$1,300,000 of gross proceeds from the loan by Lambda Investors. We are obligated to use proceeds of the rights offering to prepay all amounts due under this note. See Use of Proceeds.

(3)

In addition to the issued shares as disclosed above, as of December 31, 2012, we had 2,294,714 and 14,679,971 shares of common stock issuable upon exercise of outstanding warrants and options on an actual and pro forma as adjusted basis, respectively.

TABLE OF CONTENTS**MARKET FOR OUR COMMON STOCK**

Our common stock is quoted on the Over the Counter (OTC) Bulletin Board under the symbol NEPH. The following table sets forth the high and low bid and ask prices for our common stock as reported on the OTC Bulletin Board for each quarter listed. All prices have been adjusted to reflect the effect of the reverse split effective March 11, 2011. Such over the counter market quotations reflect inter-dealer prices, without retail mark-up, mark-down or commission and may not necessarily represent actual transactions.

| Quarter Ended | High | Low |
|--------------------|---------|---------|
| March 31, 2011 | \$.53 | \$.40 |
| June 30, 2011 | \$.98 | \$.30 |
| September 30, 2011 | \$ 2.19 | \$.70 |
| December 31, 2011 | \$ 1.90 | \$.41 |
| March 31, 2012 | \$ 1.09 | \$.44 |
| June 30, 2012 | \$ 3.19 | \$.80 |
| September 30, 2012 | \$ 1.98 | \$ 1.15 |
| December 31, 2012 | \$ 1.40 | \$ 1.02 |

As of February 20, 2013, there were approximately 20 holders of record and approximately 1,000 beneficial holders of our common stock.

TABLE OF CONTENTS

THE RIGHTS OFFERING

Background of the Rights Offering

Need for Capital

On December 31, 2012, we had cash and cash equivalents totaling approximately \$47,000 and tangible assets of approximately \$1,419,000. We expect that the \$1,300,000 we raised in February 2013 through the issuance of the note to Lambda Investors will allow us to operate into May 2013. We must seek and obtain additional financing to fund our operations. For the past two years, we have significantly reduced expenses while attempting to properly capitalize our company.

Fundraising Activities and Impact on Our Stockholders

We raised \$1,200,000 in a private placement in July 2009 at a purchase price which did not trigger the anti-dilution provisions of any of our outstanding warrants. Then in March 2011, we announced the completion of a rights offering and private placement that together resulted in gross proceeds of approximately \$3.2 million and estimated net proceeds of approximately \$2.3 million for the Company after deducting certain payments to Lambda Investors and after estimated expenses of the rights offering. In the rights offering, Nephros sold 4,964,864 units at \$0.40 per unit for gross proceeds of approximately \$2.0 million, resulting in the issuance of 4,964,854 shares of common stock and warrants to purchase an aggregate of 4,590,171 shares of common stock. The warrants expire on March 10, 2016 and have an exercise price of \$0.40 per share. All amounts are reported on a post-reverse stock split basis.

Since then we have been actively attempting to raise additional funding without success. We considered the unfavorable terms we might be required to agree to in order to raise capital from third party investors against our need for capital and our current stockholders' interests.

At present we have an immediate need for capital. For all of the reasons stated above, we have no other alternative for financing in the immediate term in which it is required. If we do not raise capital through the rights offering, we will likely need to initiate wind down proceedings, and our common stockholders most likely would receive nothing in a bankruptcy.

We believe the February loan and the rights offering provides several benefits to our stockholders:

the Lambda Investors loan provides us with the immediate funds we need to continue our business and affords us the time needed to raise additional funds through the rights offering;
the rights offering allows all of our stockholders and warrant holders to participate on terms that would not otherwise be available to many of them;

Subject to the satisfaction of certain conditions including compliance with all obligations under the note, security agreement and the other transaction documents relating to the note and no material adverse change having occurred with respect to the business, assets, and financial condition of the Company, Lambda Investors has advised us that it intends to exercise its basic subscription privilege in full and to purchase any shares of common stock that are not subscribed for by our other stockholders in the rights offering, if any.

We believe that stockholders and warrant holders who participate fully in the rights offering will suffer less dilution than they would likely experience in alternative financings. Stockholders and warrant holders who do not participate in the rights offering will suffer substantial dilution. See Dilution.

Loan from Lambda Investors

We carefully considered our capital needs and the short time that our cash would allow us to continue operations. Given the imminent shortage of funds and our inability to complete any alternative financing within the necessary time, a special committee of our independent directors (none of whom are affiliated with Lambda Investors) requested that our largest investor, Lambda Investors, loan us funds and propose a means for capitalizing our company.

On February 4, 2013, we issued a senior secured note to Lambda Investors LLC in the principal amount of \$1.3 million. We expect that the proceeds from the note will allow us to fund our operations through

TABLE OF CONTENTS

May 2013. The note bears interest at the rate of 12% per annum and matures on August 4, 2013, at which time all principal and accrued interest will be due. However, we have agreed to prepay amounts due under the note with the cash proceeds from (a) a rights offering and an offering of a discounted exercise price to public warrant holders, each as further described in the note, (b) any other equity or debt financing, or (c) the issuance or incurrence of any other indebtedness or the sale of any assets outside the ordinary course of business, in each case prior to the maturity date. If we do not pay principal and interest under the note when due, the interest rate increases to 16% per annum. In connection with the note, we have agreed to pay Lambda Investors an 8%, or \$104,000, sourcing/transaction fee. In addition, we will pay Lambda Investors legal fees and other expenses incurred in connection with the note in the amount of \$50,000 as well as Lambda Investors legal fees and other expenses incurred in connection with the rights offering in the amount of \$50,000. Those payments will be paid upon the completion of the rights offering or, if earlier, upon the maturity of the note. As additional consideration, we agreed to extend by one year the expiration date of all of Lambda's outstanding warrants to March 2017. In addition, we have undertaken to conduct the rights offering described in this prospectus. During the period when the rights offering is open, we expect to offer to our public warrant holders holding the warrants issued at the close of the March 2011 rights offering a one-time right, at their option, to exercise such warrants for an exercise price of \$0.30 per share discounted from \$0.40 per share.

Participation of Lambda Investors

As required under the terms of the note, we are conducting this rights offering to raise up to \$3,000,000 from our existing stockholders and warrant holders.

Lambda Investors has advised us that it intends to exercise its basic subscription privilege in full and to purchase any shares of common stock that are not subscribed for by our other stockholders in the rights offering, if any, subject to the following conditions being satisfied:

the business, assets, financial condition, operations, results of operations and prospects of the Company are substantially as have been represented to Lambda Investors on February 4, 2013 in connection with the senior secured note and no change shall have occurred or is reasonably likely to occur solely with the passage of time that is or may be materially adverse to the Company; and
the Company's compliance with its obligations under the note, security agreement and other transaction documents relating to the loan by Lambda Investors.

We are obligated to use proceeds from the rights offering to repay the \$1,300,000 loan from Lambda Investors, plus all accrued interest thereon, as well as an 8% sourcing/transaction fee (\$104,000) in respect of the loan and an aggregate of \$100,000 for reimbursement of Lambda Investors legal fees incurred in connection with the loan and the rights offering.

In connection with the February 2013 loan from Lambda Investors, we entered into a registration rights agreement with Lambda Investors whereby we are required to register with the SEC for resale the shares of our common stock purchased by Lambda Investors in this rights offering. See Plan of Distribution and Certain Relationships and Related Transactions for a description of the registration rights agreement with Lambda Investors. A copy of the registration rights agreement with Lambda Investors has been filed as an exhibit to the registration statement of which this prospectus is a part.

As of December 31, 2012, Lambda Investors is our largest stockholder and beneficially owns approximately 31% of our outstanding common stock and, on a fully-diluted basis, owns approximately 53% of our outstanding common stock. The warrants held by Lambda Investors have an exercise price of \$0.40 per share and certain warrants have full ratchet anti-dilution protection. Lambda Investors has agreed to that the Company could offer public warrant holders

of the Company holding warrants issued at the close of the March 2011 rights offering a one-time right, at their option to exercise their warrants for an exercise price of \$0.30 per share discounted from \$0.40 per share, but such incentive discount would not be afforded to Lambda Investors. In connection with the proposed rights offering, we agreed to amend the terms of the existing warrants held by Lambda Investors to March 10, 2017 from March 10, 2016, and Lambda Investors agreed to waive its anti-dilution rights applicable to any of its existing warrants solely with respect to the one-time incentive discount offered to public warrant holders.

35

TABLE OF CONTENTS

The shares beneficially owned by Lambda Investors may be deemed beneficially owned by Wexford Capital LP, which is the managing member of Lambda Investors. Arthur Amron, one of our directors, is a partner and general counsel of Wexford Capital and Paul A. Mieyal, another of our directors, is a vice president of Wexford Capital.

Reasons for the Rights Offering

As a condition to making the loan, Lambda Investors required that we undertake a rights offering to raise additional funds to meet our ongoing financial requirements and to repay the loan. In its loan proposal, Lambda Investors specified a rights offering of 5,000,000 shares of our common stock, and that it be made at a subscription price of \$0.60 per share to encourage our other stockholders and warrant holders to participate. A special committee of our independent directors (none of whom are affiliated with Lambda Investors) approved the loan and the rights offering after carefully evaluating our imminent need for additional capital. The special committee considered alternative capital raising methods that could be available to us and analyzed, among other things, the low likelihood of effecting another form of financing, as well as the length of time necessary to complete any such alternative financings. It also considered the costs and expenses associated with alternative financings. The special committee also considered the dilution that would be caused by the rights offering as well as by alternative financings.

The Subscription Rights

We are distributing to holders of our common stock and warrants, at no charge, one non-transferable subscription right for each share of our common stock owned as of 5:00 p.m., Eastern Time, on the record date, either as a holder of record or, in the case of shares held of record by brokers, dealers, custodian banks or other nominees on a stockholder's behalf, as a beneficial owner of such shares. Each subscription right entitles you to purchase 0.18776 of a share at a subscription price of \$0.60 per share.

Basic Subscription Privilege

For each share and/or each share of common stock underlying a warrant that you own, you will have a basic subscription privilege to buy 0.18776 of a share from us at a subscription price of \$0.60 per share. You may exercise your basic subscription privilege for some or all of your rights, or you may choose not to exercise your rights. If you choose to exercise your rights, there is no minimum number of shares you must purchase, but you may not purchase fractional shares. Subject to the satisfaction of certain conditions including compliance with all obligations under the note, security agreement and the other transaction documents relating to the note and no material adverse change having occurred with respect to our business, assets, and financial condition, Lambda Investors has advised us that it intends to exercise its basic subscription privilege in full and to purchase any shares of common stock that are not subscribed for by our other stockholders and warrant holders in the rights offering, if any. We will not issue any fractional shares. Instead we will round up any fractional shares to the nearest whole share.

Over-Subscription Privilege

If you exercise your basic subscription privilege in full, you may also exercise an over-subscription privilege to subscribe for additional shares not subscribed for by other rights holders in the offering at the same subscription price of \$0.60 per share. If an insufficient number of shares is available to fully satisfy all over-subscription privilege requests, the available shares will be allocated proportionately among rights holders who exercise their over-subscription privileges based on the number of shares each such holder subscribed for under the basic subscription privilege. The subscription agent will return any excess payments by mail without interest or deduction

promptly after expiration of the subscription period. Lambda Investors may elect to exercise its over-subscription privilege for such number of shares as it determines in its sole discretion.

Expiration of Rights Offering and Extensions, Amendments and Termination

You may exercise your subscription rights at any time prior to 5:00 p.m., Eastern Time, on May 17, 2013, the expiration date for the rights offering, subject to extension at our sole discretion, but in no event by more than 60 days from the date of this prospectus. If you do not exercise your subscription rights before the expiration date of the rights offering, your subscription rights will expire and will have no value. We will not

TABLE OF CONTENTS

be required to issue shares to you if the subscription agent receives your rights certificate or payment after the expiration date, regardless of when you sent the rights certificate and payment, unless you send the documents in compliance with the guaranteed delivery procedures described under **Guaranteed Delivery Procedures** below.

We may extend the expiration date at any time. If the rights offering is extended, subscriptions received prior to such extension will remain irrevocable. We may choose to extend the rights offering for any reason. For example, we may decide that changes in the market price of our common stock warrant an extension, or we may decide that the degree of stockholder participation in the rights offering is less than the level we desire. We may cancel the rights offering at any time prior to the expiration of the rights offering for any reason. In the event the rights offering is cancelled, all subscription payments received by the subscription agent will be returned, without interest or deduction, as soon as practicable. We also reserve the right to amend or modify the terms of the rights offering, as appropriate.

We may extend the expiration date by giving oral or written notice to our subscription agent on or before the expiration date, followed by a press release no later than 9:00 a.m., Eastern Time, on the next business day after the previously scheduled expiration date.

Conditions to the Rights Offering

As a condition to the rights offering, the registration statement of which this prospectus is a part must be declared effective by the SEC.

Method of Exercising Subscription Rights

The exercise of subscription rights is irrevocable and may not be cancelled or modified. Your subscription rights will not be considered exercised unless the subscription agent receives from you, your broker, custodian or nominee, as the case may be, all of the required documents properly completed and executed and your full subscription price payment in cash at or prior to 5:00 p.m., Eastern time, on May 17, 2013, the expiration date of the rights offering. Rights holders may exercise their rights as follows:

Subscription by Registered Holders or Warrantholders

Rights holders who are registered holders of our common stock or individuals with warrants to purchase our common stock may exercise their subscription privilege by properly completing and executing the rights certificate together with any required signature guarantees and forwarding it, together with payment in full in cash, of the subscription price for each share of the common stock for which they subscribe, to the subscription agent at the address set forth under the subsection entitled **Delivery of Subscription Materials and Payment**, on or prior to the expiration date.

Subscription by DTC Participants

Banks, trust companies, securities dealers and brokers that hold shares of our common stock or warrants on the rights offering record date as nominee for more than one beneficial owner may, upon proper showing to the subscription agent, exercise their subscription privilege on the same basis as if the beneficial owners were record holders on the rights offering record date through the Depository Trust Company, or DTC. Such holders may exercise these rights through DTC's PSOP Function on the agent's subscription over PTS procedure and instructing DTC to charge their applicable DTC account for the subscription payment for the new shares or indicating to DTC that such holder intends to pay for such rights through the delivery to the Company by the holder of an equivalent amount of principal and

accrued and unpaid interest of indebtedness owed by the Company to such holder, or a combination thereof, and deliver such amount to the subscription agent. DTC must receive the subscription instructions and payment for the new shares by the rights expiration date. Except as described under the subsection titled Guaranteed Delivery Procedures, subscriptions accepted by the subscription agent via a Notice of Guaranteed Delivery must be delivered to the subscription agent with payment before the expiration of the subscription period.

Subscription by Beneficial Owners

Rights holders who are beneficial owners of shares of our common stock or warrants and whose shares or warrants are registered in the name of a broker, custodian bank or other nominee, and rights holders who hold common stock or warrant certificates and would prefer to have an institution conduct the transaction

TABLE OF CONTENTS

relating to the rights on their behalf, should instruct their broker, custodian bank or other nominee or institution to exercise their rights and deliver all documents and payment on their behalf, prior to the expiration date. A rights holder's subscription rights will not be considered exercised unless the subscription agent receives from such rights holder, its broker, custodian, nominee or institution, as the case may be, all of the required documents and such holder's full subscription price payment.

Payment Method

Payments must be made in full in U.S. currency by:

check or bank draft payable to Continental Stock Transfer & Trust Company (acting as subscription agent for Nephros, Inc.), drawn on a U.S. bank;
U.S. Postal money order payable to Continental Stock Transfer & Trust Company (acting as subscription agent for Nephros, Inc.), or
wire transfer of immediately available funds directly to the account maintained by Continental Stock Transfer & Trust Company as agent for Nephros, Inc., for purposes of accepting subscriptions in the rights offering, at JPMorgan Chase, ABA # 021-000021, Account # 475-508351 FBO Nephros, Inc. Subscription, with reference to the rights holder's name.
Rights certificates received after 5:00 p.m., Eastern Time, on May 17, 2013, the expiration date of the rights offering, will not be honored, and we will return your payment to you as soon as practicable, without interest or deduction.

The subscription agent will be deemed to have received payment upon:

clearance of any uncertified check deposited by the subscription agent;
receipt by the subscription agent of any certified check or bank draft, drawn on a U.S. bank;
receipt by the subscription agent of any U.S. Postal money order; or
receipt by the subscription agent of any appropriately executed wire transfer.

You should read the instruction letter accompanying the rights certificate carefully and strictly follow it. **DO NOT SEND RIGHTS CERTIFICATES OR PAYMENTS TO US.** Except as described below under Guaranteed Delivery Procedures, we will not consider your subscription received until the subscription agent has received delivery of a properly completed and duly executed rights certificate and payment of the full subscription amount. The risk of delivery of all documents and payments is on you or your nominee, not us or the subscription agent.

The method of delivery of subscription rights certificates and payment of the subscription amount to the subscription agent will be at the risk of the holders of subscription rights. If sent by mail, we recommend that you send those certificates and payments by overnight courier or by registered mail, properly insured, with return receipt requested, and that a sufficient number of days be allowed to ensure delivery to the subscription agent and clearance of payment before the expiration of the subscription period. Because uncertified personal checks may take at least five or more business days to clear, we urge you to pay or arrange for payment by means of certified check made payable to Continental Stock Transfer & Trust Company (acting as subscription agent for Nephros, Inc.) to avoid missing the opportunity to exercise your subscription rights should you decide to exercise them.

Payment Adjustments

If you send a payment that is insufficient to purchase the number of shares requested, or if the number of shares requested is not specified in the rights certificate, the payment received will be applied to exercise your subscription rights to the extent of the payment. If the payment exceeds the amount necessary for the full exercise of your

subscription rights, including any over-subscription privilege exercised and permitted, the excess will be returned to you promptly in cash. You will not receive interest or a deduction on any payments refunded to you under the rights offering.

TABLE OF CONTENTS

Medallion Guarantee May Be Required

Your signature on each subscription rights certificate must be guaranteed by an eligible institution, such as a member firm of a registered national securities exchange or a member of the Financial Industry Regulatory Authority, Inc., or a commercial bank or trust company having an office or correspondent in the United States, subject to standards and procedures adopted by us, unless:

your subscription rights certificate provides that shares are to be delivered to you as record holder of those subscriptions rights; or

you are an eligible institution.

Subscription Price

As a condition to making the loan, Lambda Investors required that we undertake a rights offering to raise additional funds to meet our ongoing financial requirements and to repay the loan. In its loan proposal, Lambda Investors specified a rights offering of 5,000,000 shares our common stock, and that it be made at a subscription price of \$0.60 per share to encourage our other stockholders to participate. The loan and the rights offering, as proposed by Lambda Investors, including the \$0.60 per share subscription price, were approved by a special committee of our independent directors (none of whom are affiliated with Lambda Investors) after consideration of the financing alternatives available to us.

The \$0.60 per share subscription price is not necessarily related to our book value, net worth or any other established criteria of value and may or may not be considered the fair value of our common stock being offered in the rights offering. We did not consult with any financial or other advisor in determining the subscription price.

We cannot assure you that the market price of our common stock will not decline during or after the rights offering.

We also cannot assure you that you will be able to sell shares of our common stock purchased during the rights offering at a price equal to or greater than the \$0.60 subscription price per share. We urge you to obtain a current quote for our common stock before exercising your subscription rights or subscribing for a share.

Withdrawal and Termination

We reserve the right to withdraw the rights offering prior to the expiration of the rights offering for any reason. We may terminate the rights offering, in whole or in part, if at any time before completion of the rights offering there is any judgment, order, decree, injunction, statute, law or regulation entered, enacted, amended or held to be applicable to the rights offering that in the sole judgment of our board of directors would or might make the rights offering or its completion, whether in whole or in part, illegal or otherwise restrict or prohibit completion of the rights offering. We may waive any of these conditions and choose to proceed with the rights offering even if one or more of these events occur. If we terminate the rights offering, in whole or in part, all affected subscription rights will expire without value, and all excess subscription payments received by the subscription agent will be returned, without interest, as soon as practicable.

Cancellation Rights

Our board of directors may cancel the rights offering at any time prior to the time the rights offering expires for any reason. If we cancel the rights offering, we will issue a press release notifying stockholders of the cancellation and all subscription payments received by the subscription agent will be returned, without interest or deduction, as soon as

practicable.

Subscription Agent

The subscription agent for this rights offering is Continental Stock Transfer & Trust Company. We will pay all fees and expenses of the subscription agent related to the rights offering and have also agreed to indemnify the subscription agent from certain liabilities that it may incur in connection with the rights offering.

39

TABLE OF CONTENTS

Delivery of Subscription Materials and Payment

All subscription rights certificates, payments of the subscription price (unless submitted by wire transfer), nominee holder certifications and/or notice of guaranteed delivery, to the extent applicable to your exercise of rights, must be delivered to Continental Stock Transfer & Trust Company as follows:

If delivery by hand/mail/overnight courier:

Continental Stock Transfer & Trust Company
17 Battery Place, 8th Floor
New York, NY 10004
(917) 262-2378

Your delivery other than in the manner or to the address listed above will not constitute valid delivery.

You should direct any questions or requests for assistance concerning the method of subscribing for shares or for additional copies of this prospectus to the information agent.

Guaranteed Delivery Procedures

The subscription agent will grant you three business days after the expiration date to deliver the rights certificate if you follow the following instructions for providing the subscription agent notice of guaranteed delivery. On or prior to the expiration date, the subscription agent must receive payment in full in cash and/or securities, as provided herein, for all shares subscribed for through the exercise of the basic subscription privilege and the over-subscription privilege, together with a properly completed and duly executed notice of guaranteed delivery substantially in the form accompanying this prospectus either by mail or overnight carrier, that specifies the name of the holder of the rights and the number of shares subscribed for. If applicable, it must state separately the number of shares subscribed for through the exercise of the over-subscription privilege and a member firm of a registered national securities exchange, a member of the Financial Industry Regulatory Authority, Inc., or a commercial bank or trust company having an office or correspondent in the United States must guarantee that the properly completed and executed subscription rights certificate for all shares of common stock subscribed for will be delivered to the subscription agent within three business days after the expiration date. The subscription agent will then conditionally accept the exercise of the rights and will withhold the certificates for shares of common stock until it receives the properly completed and duly executed rights certificate within that three-business-day time period.

In the case of holders of rights that are held of record through DTC, those rights may be exercised by instructing DTC to transfer rights from that holder's DTC account to the subscription agent's DTC account, together with payment of the full subscription price. The notice of guaranteed delivery must be guaranteed by a commercial bank, trust company or credit union having an office, branch or agency in the United States or by a member of a Stock Transfer Association approved medallion program such as STAMP, SEMP or MSP.

Notices of guaranteed delivery and payments (unless submitted by wire transfer) should be mailed or delivered to the appropriate address (or, for wire transfer payments, to the appropriate account) set forth under Delivery of Subscription Materials and Payment.

Fees and Expenses

We will pay all fees charged by the subscription agent. You are responsible for paying any other commissions, fees, taxes or other expenses incurred in connection with the exercise of the subscription rights or subscribing for shares. Neither the subscription agent nor we will pay such expenses.

Notice to Nominees

If you are a broker, custodian bank or other nominee holder that holds shares of our common stock or warrants for the account of others on the record date, you should notify the beneficial owners of the shares for whom you are the nominee of the rights offering as soon as possible to learn their intentions with respect to exercising their subscription rights. You should obtain instructions from the beneficial owner, as set forth in the instructions we have provided to you for your distribution to beneficial owners. If the beneficial owner so instructs, you should complete the appropriate rights certificate and submit it to the subscription agent with the proper subscription payment. If you hold shares of our common stock or warrants for the account(s) of more

TABLE OF CONTENTS

than one beneficial owner, you may exercise the number of subscription rights to which all beneficial owners in the aggregate otherwise would have been entitled had they been direct holders of our common stock or warrants on the record date, provided that you, as a nominee record holder, make a proper showing to the subscription agent by submitting the form entitled Nominee Holder Certification, which is provided with your rights offering materials. If you did not receive this form, you should contact the subscription agent to request a copy.

Beneficial Owners

If you are a beneficial owner of shares of our common stock or warrants or will receive your subscription rights through a broker, custodian bank or other nominee, we will ask your broker, custodian bank or other nominee to notify you of the rights offering. If you wish to exercise your subscription rights, you will need to have your broker, custodian bank or other nominee act for you. To indicate your decision with respect to your subscription rights, you should complete and return to your broker, custodian bank or other nominee the form entitled Beneficial Owner Election Form. You should receive this form from your broker, custodian bank or other nominee with the other rights offering materials. If you wish to obtain a separate subscription rights certificate, you should contact the nominee as soon as possible and request that a separate subscription rights certificate be issued to you. You should contact your broker, custodian bank or other nominee if you do not receive this form, but you believe you are entitled to participate in the rights offering. We are not responsible if you do not receive the form from your broker, custodian bank or nominee or if you receive it without sufficient time to respond.

Non-Transferability of Subscription Rights

Your subscription rights are not transferable, other than by operation of law, and may be exercised only by you. You may not sell, transfer or assign your subscription rights to anyone else.

Validity of Subscriptions

We will resolve all questions regarding the validity and form of the exercise of your subscription rights, including time of receipt and eligibility to participate in the rights offering. Our determination will be final and binding. Once made, subscriptions and directions are irrevocable, and we will not accept any alternative, conditional or contingent subscriptions or directions. We reserve the absolute right to reject any subscriptions or directions not properly submitted or the acceptance of which would be unlawful. You must resolve any irregularities in connection with your subscriptions before the subscription period expires, unless waived by us in our sole discretion. Neither the subscription agent nor we shall be under any duty to notify you or your representative of defects in your subscriptions. A subscription will be considered accepted, subject to our right to withdraw or terminate the rights offering, only when a properly completed and duly executed rights certificate and any other required documents and the full subscription payment have been received by the subscription agent. Our interpretations of the terms and conditions of the rights offering will be final and binding.

Segregated Account; Return of Funds

The subscription agent will hold funds received in payment for shares in a segregated account pending completion of the rights offering. The subscription agent will hold this money in escrow until the rights offering is completed or is withdrawn and canceled. If the rights offering is canceled for any reason, all subscription payments received by the subscription agent will be returned, without interest or penalties, as soon as practicable.

Certificates for Shares of Common Stock

As soon as practicable after the completion of the rights offering, the subscription agent will arrange for issuance to each subscriber of the shares of common stock purchased in the rights offering.

Stockholder Rights

You will have no rights as a holder of the shares of our common stock you purchase in the rights offering, if any, until certificates representing the shares of our common stock are issued to you or your account at your record holder is credited with the shares of our common stock purchased in the rights

TABLE OF CONTENTS

offering. You will have no right to revoke your subscriptions after your rights certificate or the Beneficial Owner Election Form, the full subscription payment and any other required documents have been delivered to the subscription agent.

State Securities Law Matters

The issuance and exercise of subscription rights is subject to compliance with state securities laws and regulations. Although we intend to distribute the rights to all stockholders and warrant holders, we reserve the right in some states to require stockholders and warrant holders, if they wish to participate, to state and agree upon exercise of their respective rights that they are acquiring the shares for investment purposes only, and that they have no present intention to resell or transfer any shares acquired. This rights offering is not being made and our securities are not being offered in any jurisdiction where the offer is not permitted under applicable local laws. We have the right, in our sole discretion, to not effect registration or qualification of the subscription rights in any state or other jurisdiction, or take any other action required by any state or other jurisdiction to allow the offer to take place in that state or jurisdiction. If you reside in a state or other jurisdiction in which registration, qualification or other action is necessary with which we choose not to comply, you will not be eligible to participate in the rights offering.

Foreign Stockholders and Warrant holders

We will not mail this prospectus or rights certificates to stockholders and warrant holders with addresses that are outside the United States or that have an army post office or foreign post office address. The subscription agent will hold these rights certificates for their account. To exercise subscription rights, our foreign stockholders and warrant holders and stockholders and warrant holders that have an army post office or foreign post office address must notify us prior to 11:00 a.m., Eastern Time, at least five business days prior to the expiration of the rights offering and demonstrate to our satisfaction that the exercise of such subscription rights does not violate the laws of the jurisdiction of such stockholder.

No Revocation or Change

Once you submit the form of rights certificate to exercise any subscription rights, you are not allowed to revoke or change the exercise or request a refund of monies paid. All exercises of subscription rights are irrevocable, even if you learn information about us that you consider to be unfavorable. You should not exercise your subscription rights unless you are certain that you wish to purchase shares at the subscription price.

No Recommendation to Rights Holders

Our board of directors is making no recommendation regarding your exercise of the subscription rights. You are urged to make your decision based on your own assessment of our business and the rights offering. Please see Risk Factors for a discussion of some of the risks involved in investing in the shares.

Listing

The subscription rights will not be listed for trading on the OTC Bulletin Board or any stock exchange or market. The shares of our common stock issuable upon exercise of the subscription rights and upon exercise of the warrants will be listed on the OTC Bulletin Board under the ticker symbol NEPH.

Shares of Our Common Stock Outstanding After Completion of the Rights Offering

As of the record date, we had 12,025,309 shares of our common stock issued and outstanding. If all of the shares offered are sold, we will issue 5,000,000 shares of our common stock in the rights offering. Assuming all of the shares offered are sold and no additional shares of our common stock are issued and no outstanding options or warrants are exercised prior to the completion of the rights offering, approximately 17,025,309 shares of our common stock will be outstanding immediately after the completion of the rights offering.

Additional Information

If you have any questions or need further information or assistance concerning the method of subscribing or about the rights offering, please contact Gerald J. Kochanski at (201) 343-5202, ext 102.

TABLE OF CONTENTS

PLAN OF DISTRIBUTION

On or about April 17, 2013, we will distribute the rights, rights certificates and copies of this prospectus to individuals who owned shares of our common stock and/or owned warrants on the record date. We have not employed any brokers, dealers or underwriters in connection with the solicitation or exercise of rights in the rights offering and no commissions, fees or discounts will be paid in connection with the rights offering. While certain of our directors, officers and other employees may solicit responses from you, those directors, officers and other employees will not receive any commissions or compensation for their services other than their normal compensation. We have agreed to pay the subscription agent and the information agent customary fees plus certain expenses in connection with the rights offering.

If you wish to exercise your subscription rights and subscribe for shares in the rights offering, you should complete the subscription rights certificate and return it with payment in cash and/or securities, as provided herein, for the shares subscribed, to the subscription agent, Continental Stock Transfer & Trust Company, at the following address:

If delivering by Hand/Mail/Overnight Courier:
Continental Stock Transfer & Trust Company
17 Battery Place, 8th Floor
New York, NY 10004
(917) 262-2378

You may also pay for your subscription of shares by wire transfer of immediately available funds as follows:

JPMorgan Chase
ABA # 021-000021
Continental Stock Transfer & Trust Company as agent for Nephros, Inc.
Acct # 475508351 FBO Nephros, Inc. Subscription

You should direct any questions or requests for assistance concerning the method of subscribing for shares to Gerald J. Kochanski at (201) 343-5202, ext. 102.

You are solely responsible for completing delivery to the subscription agent of your subscription documents, rights certificate and payment. We urge you to allow sufficient time for delivery of your subscription materials to the subscription agent. See The Rights Offering Method of Exercising Subscription Rights.

In the event that the rights offering is not fully subscribed, holders of rights who exercise all of their rights pursuant to their basic subscription privilege will have the opportunity to subscribe for unsubscribed rights pursuant to the over-subscription privilege. See further the section of this prospectus entitled The Rights Offering.

Subject to the satisfaction of certain conditions including compliance with all obligations under the note, security agreement and the other transaction documents relating to the note and no material adverse change having occurred with respect to the business, assets, and financial condition of the Company, Lambda Investors has advised us that it intends to exercise its basic subscription privilege in full and to purchase any shares of common stock that are not subscribed for by our other stockholders in the rights offering, if any. See The Rights Offering Background of the Rights Offering Participation of Lambda Investors.

We are not entering into any other similar agreements with respect to the purchase of any shares not subscribed for through exercise of subscription privileges by our stockholders. See The Rights Offering Background of the Rights Offering Participation of Lambda Investors. We are obligated to use proceeds from the rights offering to repay the \$1,300,000 loan from Lambda Investors, plus all accrued interest thereon, as well as an 8% sourcing/transaction fee (\$104,000) in respect of the loan and an aggregate of \$100,000 for reimbursement of Lambda Investors legal fees incurred in connection with the loan and the rights offering.

TABLE OF CONTENTS

We have entered into a registration rights agreement with Lambda Investors in connection with the rights offering.

The registration rights agreement covers the shares of our common stock sold to Lambda Investors. See Certain Relationships and Related Transactions for a description of the registration rights agreement with Lambda Investors.

Other than as described herein, we do not know of any existing agreements between any stockholder, broker, dealer, underwriter or agent relating to the sale or distribution of the shares of common stock.

The issuance and exercise of subscription rights is subject to compliance with state securities laws and regulations. Although we intend to distribute the subscription rights to all stockholders and warrant holders, we reserve the right in some states to require stockholders and warrant holders, if they wish to participate, to state and agree upon exercise of their respective rights that they are acquiring the shares for investment purposes only, and that they have no present intention to resell or transfer any shares acquired. Our securities are not being offered in any jurisdiction where the offer is not permitted under applicable local laws. We have the right, in our sole discretion, to not effect registration or qualification of the subscription rights in any state or other jurisdiction.

We have not entered into any agreements regarding stabilization activities with respect to our securities.

TABLE OF CONTENTS

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion includes forward-looking statements about our business, financial condition, and results of operations, including discussions about management's expectations for our business. These statements represent projections, beliefs and expectations based on current circumstances and conditions and in light of recent events and trends, and you should not construe these statements either as assurances of performances or as promises of a given course of action. Instead, various known and unknown factors are likely to cause our actual performance and management's actions to vary, and the results of these variances may be both material and adverse. A list of the known material factors that may cause our results to vary, or may cause management to deviate from its current plans and expectations, is included herein under "Risk Factors" and Item 1A "Risk Factors" of our Annual Report on Form 10-K for the year ended December 31, 2012. The following discussion should also be read in conjunction with the consolidated financial statements and notes included herein.

Going Concern

Our independent registered public accounting firm has included an explanatory paragraph in their report on our financial statements included in this prospectus and in our Annual Report on Form 10-K for the year ended December 31, 2012 which expressed doubt as to our ability to continue as a going concern. The accompanying financial statements have been prepared assuming that we will continue as a going concern, however, there can be no assurance that we will be able to do so. Our recurring losses and difficulty in generating sufficient cash flow to meet our obligations and sustain our operations raise substantial doubt about our ability to continue as a going concern, and our consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Business Overview

Nephros is a commercial stage medical device company that develops and sells high performance liquid purification filters. Our filters, which we call ultrafilters, are primarily used in dialysis centers and healthcare facilities for the production of ultrapure water and bicarbonate. Because our ultrafilters capture contaminants as small as 0.005 microns in size, they eliminate a wide variety of bacteria, viruses, fungi, parasites, and endotoxins harmful to humans.

All of our ultrafilters use proprietary hollow fiber technology. We believe the hollow fiber design allows our ultrafilters to be the only commercially available filters for healthcare applications that optimize the three elements critical to filter performance:

Filtration as low as 0.005 microns
Flow rate minimal disruption
Filter life up to 12 months

By comparison, competitive filters on the market today are typically effective only to the 0.2 micron level and are prone to clog more quickly, thus reducing their useful lives.

We were founded in 1997 by healthcare professionals affiliated with Columbia University Medical Center/New York-Presbyterian Hospital to develop and commercialize an alternative method to hemodialysis (HD). In 2009, we began to extend our filtration technologies to meet the demand for liquid purification in other areas, in particular water purification.

We have not begun to broadly market our mid-HDF system and plan to seek a commercialization partner in the U.S.

The following trends, events and uncertainties may have a material impact on our potential sales, revenue and income from operations:

the market acceptance of our products in the United States and of our technologies and products in each of our target markets;

our ability to effectively and efficiently manufacture, market and distribute our products;

45

TABLE OF CONTENTS

our ability to sell our products at competitive prices which exceed our per unit costs; the consolidation of dialysis clinics into larger clinical groups; and the current U.S. healthcare plan is to bundle reimbursement for dialysis treatment which may force dialysis clinics to change therapies due to financial reasons.

To the extent we are unable to succeed in accomplishing the foregoing, our sales could be lower than expected and dramatically impair our ability to generate income from operations.

Recently Adopted Accounting Pronouncements

In June 2011, the FASB issued ASU No. 2011-05, Comprehensive Income (ASC Topic 220): Presentation of Comprehensive Income, (ASU 2011-05) which amends current comprehensive income guidance. This accounting update eliminates the option to present the components of other comprehensive income as part of the statement of shareholders equity. Instead, we must report comprehensive income in either a single continuous statement of comprehensive income which contains two sections, net income and other comprehensive income, or in two separate but consecutive statements. ASU 2011-05 will be effective for public companies during the interim and annual periods beginning after Dec. 15, 2011 with early adoption permitted. We adopted this guidance as of January 1, 2012 and since this relates to presentation only, the adoption of this guidance did not have any other effect on our consolidated financial statements.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations are based on our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of financial statements in accordance with generally accepted accounting principles in the United States requires application of management s subjective judgments, often requiring the need to make estimates about the effect of matters that are inherently uncertain and may change in subsequent periods. Our actual results may differ substantially from these estimates under different assumptions or conditions. While our significant accounting policies are described in more detail in the notes to consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2012, we believe that the following accounting policies require the application of significant judgments and estimates.

Revenue Recognition

Revenue is recognized in accordance with Accounting Standards Codification (ASC) Topic 605. Four basic criteria must be met before revenue can be recognized: (i) persuasive evidence that an arrangement exists; (ii) delivery has occurred or services have been rendered; (iii) the fee is fixed or determinable; and (iv) collectability is reasonably assured.

We recognize revenue related to product sales when delivery is confirmed by our external logistics provider and the other criteria of ASC Topic 605 are met. Product revenue is recorded net of returns and allowances. All costs and duties relating to delivery are absorbed by us. Shipments for all products are currently received directly by our customers.

We recognize the fixed license revenue under the Bellco license agreement on a straight line basis over the forty-two month expected obligation period which ends on December 31, 2014. Any difference between payments received and recognized revenue is reported as deferred revenue.

Deferred revenue on the accompanying December 31, 2012 consolidated balance sheet is approximately \$1,414,000 and is related to the Bellco license agreement. We have recognized approximately \$1,045,000 of revenue related to this license agreement to date and approximately \$680,000 for the twelve months ended December 31, 2012, resulting in \$1,414,000 being deferred over the remainder of the expected obligation period. We amortize the deferred revenue monthly over the expected obligation period which ends on December 31, 2014. This will result in expected recognized revenue of approximately \$707,000 in each of the years ended December 31, 2013 and 2014.

The final guaranteed fixed payment of approximately \$791,000 is due in January 2013 and is included in current trade receivables on the accompanying December 31, 2012 consolidated balance sheet.

TABLE OF CONTENTS

Stock-Based Compensation

We account for stock-based compensation in accordance with ASC 718 by recognizing the fair value of stock-based compensation in net income. The fair value of our stock option awards are estimated using a Black-Scholes option valuation model. This model requires the input of highly subjective assumptions and elections including expected stock price volatility and the estimated life of each award. In addition, the calculation of compensation costs requires that we estimate the number of awards that will be forfeited during the vesting period. The fair value of stock-based awards is amortized over the vesting period of the award. For stock awards that vest based on performance conditions (e.g. achievement of certain milestones), expense is recognized when it is probable that the condition will be met.

Accounts Receivable

We provide credit terms to our customers in connection with purchases of our products. We periodically review customer account activity in order to assess the adequacy of the allowances provided for potential collection issues and returns. Factors considered include economic conditions, each customer's payment and return history and credit worthiness. Adjustments, if any, are made to reserve balances following the completion of these reviews to reflect our best estimate of potential losses.

Inventory Reserves

Our inventory reserve requirements are based on factors including the products' expiration date and estimates for the future sales of the product. If estimated sales levels do not materialize, we will make adjustments to our assumptions for inventory reserve requirements.

Accrued Expenses

We are required to estimate accrued expenses as part of our process of preparing financial statements. This process involves identifying services which have been performed on our behalf, and the level of service performed and the associated cost incurred for such service as of each balance sheet date in our financial statements. Examples of areas in which subjective judgments may be required include costs associated with services provided by contract organizations for the preclinical development of our products, the manufacturing of clinical materials, and clinical trials, as well as legal and accounting services provided by professional organizations. In connection with such service fees, our estimates are most affected by our understanding of the status and timing of services provided relative to the actual levels of services incurred by such service providers. The majority of our service providers invoice us monthly in arrears for services performed. In the event that we do not identify certain costs, which have begun to be incurred, or we under- or over-estimate the level of services performed or the costs of such services, our reported expenses for such period would be too low or too high. The date on which certain services commence, the level of services performed on or before a given date and the cost of such services are often determined based on subjective judgments. We make these judgments based upon the facts and circumstances known to us in accordance with generally accepted accounting principles.

Results of Operations

Fluctuations in Operating Results

Our results of operations have fluctuated significantly from period to period in the past and are likely to continue to do so in the future. We anticipate that our annual results of operations will be impacted for the foreseeable future by several factors including the progress and timing of expenditures related to our research and development efforts, marketing expenses related to product launches, timing of regulatory approval of our various products and market acceptance of our products. Due to these fluctuations, we believe that the period to period comparisons of our operating results are not a good indication of our future performance.

The Fiscal Year Ended December 31, 2012 Compared to the Fiscal Year Ended December 31, 2011

Revenues

Total revenues for the year ended December 31, 2012 were approximately \$1,807,000 compared to approximately \$2,214,000 for the year ended December 31, 2011. Total revenues decreased approximately \$407,000, or 18% as a result of decreases of approximately \$733,000 related to our MD filters in Europe,

TABLE OF CONTENTS

\$346,000 related to the Office of Naval Research, whose contract ended as of March 2012, and approximately \$33,000 related to the STERIS project. These decreases were partially offset by an increase of approximately \$315,000 related to the Bellco license agreement as well as a 63% increase in water filter sales, which increased from \$620,000 in 2011 to \$1,010,000 in 2012.

Revenues were not significantly impacted by inflation or changing prices for the years ended December 31, 2012 or 2011.

Cost of Goods Sold

Cost of goods sold was approximately \$737,000 for the year ended December 31, 2012 compared to approximately \$1,346,000 for the year ended December 31, 2011. The decrease of approximately \$609,000 or 45%, in cost of goods sold is primarily related to a \$583,000 reduction in cost of goods sold of our MD filters in Europe. Additional decreases include approximately \$208,000 related to the Office of Naval Research, approximately \$15,000 related to DSU sales for the year ended December 31, 2012 compared to the same period in 2011 and a decrease of approximately \$29,000 related to the STERIS project. These decreases were partially offset by an increase in cost of goods sold of approximately \$226,000 related to filters sold to the military during the year ended December 31, 2012, a 100% increase compared to the same period in 2011. Cost of goods sold includes increases in inventory reserves of approximately \$82,000 and \$218,000 for the years ended December 31, 2012 and 2011, respectively.

Research and Development

Research and development expenses were approximately \$632,000 and \$451,000 respectively, for the years ended December 31, 2012 and December 31, 2011. This increase of approximately \$181,000 or 40% is primarily due to an increase in research and development personnel related costs of approximately \$136,000 during the year ended December 31, 2012 compared to the year ended December 31, 2011.

Depreciation and Amortization Expense

Depreciation and amortization expense was approximately \$151,000 for the year ended December 31, 2012 compared to approximately \$91,000 for the year ended December 31, 2011, an increase of 66%. The increase of approximately \$60,000 is primarily due to amortization of approximately \$142,000 related to the asset recognized in conjunction with the License and Supply Agreement offset partially by several assets having been fully depreciated as of year-end 2011 resulting in no depreciation expense for those assets during the year ended December 31, 2012.

Selling, General and Administrative Expenses

Selling, general and administrative expenses were approximately \$3,620,000 for the year ended December 31, 2012 compared to approximately \$2,636,000 for the year ended December 31, 2011, an increase of \$984,000 or 37%. The increase is primarily due to \$489,000 of salary expense, an increase in legal expenses of approximately \$330,000, an increase in stock compensation expense of \$159,000, and \$171,000 of travel related expenses during the year ended December 31, 2012 compared to the year ended December 30, 2011. These increases were partially offset by a reduction in bonus expense of approximately \$165,000 for the year ended December 31, 2012 compared to the year ended December 31, 2011.

Interest Income

Interest income was approximately \$2,000 for the year ended December 31, 2012 compared to approximately \$4,000 for the year ended December 31, 2011. The decrease of \$2,000 reflects the impact of having less cash on hand in 2012 compared to 2011.

Interest Expense

Interest expense for the year ended December 31, 2012 was \$0 compared to \$12,000 for the year ended December 31, 2011. Interest expense for the year ended December 31, 2011 relates to interest accrued on the \$500,000 senior secured note issued to Lambda Investors LLC, which was paid in March 2011.

Amortization of Debt Issuance Costs

We account for debt issuance costs in accordance with ASC 835, which requires that these costs be reported in the balance sheet as deferred charges and amortized over the term of the associated debt. Amortization of debt issuance costs of \$0 and \$40,000 for the years ended December 31, 2012 and 2011,

TABLE OF CONTENTS

respectively, were associated with the senior secured note issued to Lambda Investors LLC. The note was paid in March 2011 and these capitalized costs were fully amortized by the first quarter of 2011.

Other Income/Expense

Other income in the amount of approximately \$69,000 for the year ended December 31, 2012 was primarily due to approximately \$55,000 arising from the sale of fully depreciated manufacturing equipment sold to Medica in October 2012. In addition, approximately \$18,000 was related to the write-offs of vendor invoices which are no longer due. Other income was partially offset by \$4,000 related to foreign currency losses on invoices paid to an international supplier.

Other expense in the amount of approximately \$2,000 for the year ended December 31, 2011 was due to foreign currency loss on invoices paid to an international supplier.

Off-Balance Sheet Arrangements

We did not engage in any off-balance sheet arrangements during the periods ended December 31, 2012 and December 31, 2011.

Liquidity and Capital Resources

Our future liquidity sources and requirements will depend on many factors, including:

- receipt of scheduled payments per the Bellco S.r.l. license agreement;
- the availability of additional financing, through the sale of equity securities or otherwise, on commercially reasonable terms or at all;
- the market acceptance of our products, and our ability to effectively and efficiently produce and market our products;
- the continued progress in and the costs of clinical studies and other research and development programs;
- the costs involved in filing and enforcing patent claims and the status of competitive products; and
- the cost of litigation, including potential patent litigation and any other actual or threatened litigation.

We expect to put our current capital resources to the following uses:

- for the marketing and sales of our water-filtration products;
- to pursue business development opportunities with respect to our chronic renal treatment system; and
- for working capital purposes.

In response to liquidity issues experienced with our auction rate securities, and in order to facilitate greater liquidity in our short-term investments, on March 27, 2008, our board of directors adopted an Investment, Risk Management and Accounting Policy. Such policy limits the types of instruments or securities in which we may invest our excess funds in the future to: U.S. Treasury Securities; Certificates of Deposit issued by money center banks; Money Funds by money center banks; Repurchase Agreements; and Eurodollar Certificates of Deposit issued by money center banks. This policy provides that our primary objectives for investments shall be the preservation of principal and achieving sufficient liquidity to meet our forecasted cash requirements. In addition, provided that such primary objectives are met, we may seek to achieve the maximum yield available under such constraints.

On March 10, 2011 we completed our rights offering and private placement that together resulted in gross proceeds of approximately \$3.2 million to us. Our stockholders subscribed for 4,964,854 units in the rights offering and we accepted all basic subscription rights and oversubscription privileges. The units were sold at a per unit purchase price

of \$0.40. Gross proceeds from the sale of these units in the rights offering was approximately \$2.0 million. We issued an aggregate of 4,964,854 shares of common stock and warrants to purchase an aggregate of approximately 4,590,171 million shares of common stock to stockholders who subscribed.

TABLE OF CONTENTS

Simultaneously with the closing of the rights offering, Lambda Investors, LLC purchased in a private placement 3,009,711 units at the same per unit purchase price of \$0.40, pursuant to a purchase agreement between us and Lambda Investors. We issued to Lambda Investors an aggregate of 3,009,711 shares of common stock and warrants to purchase an aggregate of 2,782,577 shares of common stock. We received approximately \$1.2 million in gross proceeds from its sale of units to Lambda Investors.

The aggregate net proceeds received by us from the rights offering and private placement were approximately \$2.3 million, after deducting the estimated aggregate expenses of these transactions, the repayment of the \$500,000 note, plus all accrued interest thereon, issued to Lambda Investors, LLC, the payment of an 8% sourcing/transaction fee (\$40,000) in respect of the note and an aggregate of \$100,000 for reimbursement of Lambda Investors' legal fees incurred in connection with the loan and the rights offering.

On March 11, 2011, we effected a reverse stock split, in which every 20 shares of our common stock issued and outstanding immediately prior to the effective time, which was 5:00 p.m. on March 11, 2011, were converted into one share of common stock. Fractional shares were not issued and stockholders who otherwise would have been entitled to receive a fractional share as a result of the reverse stock split received an amount in cash equal to \$0.04 per pre-split share for such fractional interests. The number of shares of common stock issued and outstanding was reduced from approximately 201,300,000 pre-split to approximately 10,100,000 post-split. The reverse stock split was effected in connection with the rights offering and private placement.

At December 31, 2012, we had an accumulated deficit of \$97,530,000, and we expect to incur additional losses in the foreseeable future at least until such time, if ever, that we are able to increase product sales or licensing revenue.

The Bellco license agreement provides us with payments of €500,000, €750,000, and €600,000 on July 1, 2011, January 15, 2012 and January 15, 2013, respectively and all payments have been received. Beginning on January 1, 2015 through and including December 31, 2016, Bellco will pay us a royalty based on the number of units of Products sold per year in the Territory as follows: for the first 103,000 units sold, €4.50 per unit; thereafter, €4.00 per unit. Anticipated payments from this License Agreement will be a positive source of cash flow to us.

On April 23, 2012, we entered into a License and Supply Agreement (the "License and Supply Agreement") with Medica, an Italy-based medical product manufacturing company, for the marketing and sale of certain filtration products based upon Medica's proprietary Medisulfone ultrafiltration technology in conjunction with our filtration products (collectively, the "Filtration Products"), and to engage in an exclusive supply arrangement for the Filtration Products. Under the License and Supply Agreement, Medica granted to us an exclusive license, with right of sublicense, to market, promote, distribute, offer for sale and sell the Filtration Products worldwide, excluding Italy for the first three years, during the term of the License and Supply Agreement. In addition, we granted to Medica an exclusive license under our intellectual property to make the Filtration Products during the term of the License and Supply Agreement. In exchange for the rights granted, we have agreed to make minimum annual aggregate purchases from Medica of €300,000, €500,000 and €750,000 for the years 2012, 2013 and 2014, respectively. In the year ended December 31, 2012, our aggregate purchase commitments totaled approximately €585,000. For calendar years thereafter, annual minimum amounts will be mutually agreed upon between Medica and us. In exchange for the license, we paid Medica €1,100,000 in two installments: €500,000 on April 23, 2012 and €600,000 on February 4, 2013. The remaining €400,000 is to be paid by June 30, 2013. As part of the agreement, we have granted to Medica 300,000 options to purchase our common stock which will vest over the first three years of the agreement.

On February 4, 2013, the Company issued a senior secured note to Lambda Investors LLC in the principal amount of \$1.3 million. For a more detailed discussion of the terms of the senior secured note, see "Business - Going Concern."

As of the date of this report, we expect that the proceeds from the note will allow us to fund our operations through May 2013. Our cash flow currently is not, and historically has not been, sufficient to meet our obligations and commitments. We must seek and obtain additional financing to fund our operations. If we cannot raise sufficient capital, in connection with the contemplated rights offering or through other means, we will be forced to curtail our planned activities and operations or cease operations entirely and you will lose all

TABLE OF CONTENTS

of your investment in our Company. There can be no assurance that we could raise sufficient capital on a timely basis or on satisfactory terms or at all.

Net cash used in operating activities was approximately \$1,547,000 for the year ended December 31, 2012 compared to approximately \$1,296,000 for the year ended December 31, 2011. The most significant items contributing to this net increase of approximately \$251,000 in cash used in operating activities during the year ended December 31, 2012 compared to the year ended December 31, 2011 are highlighted below:

during 2012, our net loss increased by approximately \$902,000, compared to 2011;
during 2012, we recorded an inventory reserve of \$82,000 compared to \$200,000 in 2011;
during 2012, we recorded amortization of debt issuance costs of \$0, whereas amortization of debt issuance costs in 2011 were \$40,000;
during 2012, we recognized a gain on the sale of property and equipment of approximately \$55,000;
during 2012, our inventory increased by approximately \$147,000 compared to a decrease of approximately \$295,000 during 2011;
during 2012, our deferred revenue decreased by approximately \$680,000 compared to an increase of approximately \$2,061,000 during 2011; and
during 2012, our prepaid expenses and other assets decreased by approximately \$4,000 compared to \$76,000 in 2011.
Offsetting the above changes are the following items:

during 2012, depreciation and amortization expense increased by approximately \$60,000, compared to 2011;
during 2012, our stock-based compensation expense, a non-cash expense, increased by approximately \$187,000 compared to 2011;
during 2012, our accounts receivable decreased by approximately \$1,006,000 compared to an increase of approximately \$832,000 during 2011;
long-term receivable increased by approximately \$778,000 during 2011; and
during 2012, our accounts payable and accrued expenses increased by approximately \$904,000 in the aggregate compared to a decrease of approximately \$357,000 during 2011.

Net cash used in investing activities for the year ended December 31, 2012 was approximately \$612,000 related primarily to \$8,000 used for the purchase of equipment and \$659,000 for the purchase of intangible assets associated with the Medica License and Supply Agreement and partially offset by proceeds received of approximately \$55,000 related to the sale of property and equipment. There was no cash used or provided by investing activities during the year ended December 31, 2011.

Net cash provided by financing activities was approximately \$503,000 for the year ended December 31, 2012 as a result of the exercise of warrants. Net cash provided by financing activities of approximately \$2,723,000 for the year ended December 31, 2011 resulted from proceeds received related to the issuance of stock of approximately \$3,189,000 and from proceeds received related to the exercise of warrants of approximately \$174,000. For the year ended December 31, 2011, cash provided by financing activities was partially offset by the payment of debt of approximately \$500,000 and the payment of deferred financing costs of approximately \$140,000.

Contractual Obligations and Commercial Commitments

The following tables summarize our approximate minimum contractual obligations and commercial commitments as of December 31, 2012:

TABLE OF CONTENTS

| | Payments Due in Period | | | | |
|----------------------|------------------------|------------------|--------------|--------------|----------------------|
| | Total | Within 1 Year | Years 1 3 | Years 4 5 | More than 5 Years |
| Leases | \$ 113,000 | \$ 99,000 | \$ 14,000 | \$ | \$ |
| Employment Contracts | 1,402,000 | 550,000 | 852,000 | | |
| Total | \$ 1,515,000 | \$ 649,000 | \$ 866,000 | \$ | \$ |

52

TABLE OF CONTENTS

BUSINESS

Overview

Nephros is a commercial stage medical device company that develops and sells high performance liquid purification filters. Our filters, which we call ultrafilters, are primarily used in dialysis centers and healthcare facilities for the production of ultrapure water and bicarbonate. Because our ultrafilters capture contaminants as small as 0.005 microns in size, they eliminate a wide variety of bacteria, viruses, fungi, parasites, and endotoxins harmful to humans.

All of our ultrafilters use proprietary hollow fiber technology. We believe the hollow fiber design allows our ultrafilters to be the only commercially available filters for healthcare applications that optimize the three elements critical to filter performance:

Filtration as low as 0.005 microns
Flow rate minimal disruption
Filter life up to 12 months

By comparison, competitive filters on the market today are typically effective only to the 0.2 micron level and are prone to clog more quickly, thus reducing their useful lives.

We were founded in 1997 by healthcare professionals affiliated with Columbia University Medical Center/New York-Presbyterian Hospital to develop and commercialize an alternative method to hemodialysis (HD). In 2009, we began to extend our filtration technologies to meet the demand for liquid purification in other areas, in particular water purification.

Our Products

Presently, we offer seven types of ultrafilters for sale to customers in four markets:

Dialysis Centers Water/Bicarbonate: Treatment of both water and bicarbonate for the production of ultrapure dialysate

Hospitals and Other Healthcare Facilities: Removal of infectious agents in drinking and bathing water, particularly in high risk patient areas

Military: Highly compact, individual water treatment devices used by soldiers to produce safe drinking water in the field

Dialysis Centers Blood: Clearance of toxins from blood using an alternative method to HD in patients with chronic renal failure

We have designed our ultrafilters as either in-line products, filters that are incorporated into the existing plumbing of healthcare facilities, or point-of-use products, filters that can be easily installed onto a faucet or as a replacement shower head or can be used stand-alone to purify small quantities of water immediately prior to use.

Our Target Markets

Dialysis Centers Water/Bicarbonate. To perform hemodialysis, all dialysis clinics have dedicated water purification systems to produce pure water and bicarbonate. Water and bicarbonate are essential ingredients for making dialysate,

the liquid that removes waste material from the blood. Within the U.S., there are approximately 5,700 clinics with 100,000 dialysis machines providing over 50 million dialysis treatments to 370,000 patients annually.

Medicare is the main payor for dialysis treatment in the U.S. To be eligible for Medicare reimbursement, dialysis centers must meet the minimum standards for water and bicarbonate quality set by the Association for the Advancement of Medical Instrumentation (AAMI), the American National Standards Institute (ANSI) and the International Standards Organization (ISO). We anticipate that the stricter standards approved by these organizations in 2009 will be adopted by Medicare in the near future.

TABLE OF CONTENTS

Published studies have shown that the use of ultrapure dialysate can make patients healthier and reduce their dependence on erythropoietin (EPO), an expensive drug used in conjunction with HD. By reducing the level of dialysate contaminants, specifically cytokine-inducing substances that can pass into a patient's blood stream, cytokine levels within a patient stay low, thus reducing systemic inflammation. When inflammation is low, inflammatory morbidities are reduced and a patient's responsiveness to EPO is enhanced, consequently the overall need for the drug is reduced.

We believe that our ultrafilters are attractive to dialysis centers because they exceed currently approved and newly proposed standards for water/bicarbonate purity, assist in achieving those standards and help dialysis centers reduce costs associated with the amount of EPO required to treat a patient. Our in-line filters are easily installed into the fluid circuits supplying water and bicarbonate just prior to entering each dialysis machine.

Hospitals and Other Healthcare Facilities. According to the United States Centers for Disease Control and Prevention (CDC), healthcare acquired infections (HAIs) annually account for 1.7 million infections, 99,000 deaths, and \$4.5-\$6.5 billion in extra costs in U.S. hospitals. At the root of many HAIs are waterborne pathogens such as *Legionella* and *Pseudomonas* which can thrive in aging or complex plumbing systems often found in healthcare facilities. According to the CDC, 23% of *Legionella* infections originate in healthcare facilities and *Pseudomonas* infections account for 10% of all water-related HAIs. These pathogens are most harmful to patients in intensive care, neonatal, burn, cancer, and transplant units.

The Affordable Care Act (ACA) which was passed in March 2010 puts in place comprehensive health insurance reforms that aim to lower costs and enhance quality of care. With its implementation, healthcare providers have substantial incentives to deliver better care or be forced to absorb the expenses associated with repeat medical procedures or complications like HAIs. The ACA encompasses HAIs and shifts the costs associated with their treatment back onto the healthcare provider. As a consequence, hospitals and other healthcare facilities are proactively implementing strategies to reduce the potential for HAIs.

Our ultrafilters are designed to reduce the risk of HAIs in the hospital/healthcare setting by treating water just prior to use. Our products can be used for reactive infection control. For example, during acute disease outbreaks (such as Legionnaires' disease), our ultrafilters have been used at hospitals and other healthcare facilities to quickly and efficiently assist in the control of such outbreaks. Our ultrafilters are also being used as a preventative measure in healthcare facilities, particularly in areas where high risk patients are being treated. Our point-of-use filters can be easily installed onto the end of faucets or as replacement shower heads.

The plastic casing of our hospital ultrafilters contains BACTiglas™. BACTiglas™ releases silver ions at the surface of the plastic casing such that they are imparted to anything that touches it. Silver ions (through chemical bonding with amino acids) result in the killing of the bacteria that remains on the surface of the plastic. This enables our hospital ultrafilters to be bacteriocidal to any touch contamination or any growth on the surface of the plastic in addition to their water treatment effect.

Military. The military is heavily reliant on the use of bottled water to support its soldiers in the field. Bottled water is not always available, is very costly to move, resource intensive, and prone to constant supply disruptions. Soldiers conducting operations in isolated and rugged terrain must be able to use available local water sources when unable to resupply from bulk drinking water sources or bottled water. Therefore, the soldier needs the capability to purify water from indigenous water sources in the absence of available potable water. Soldiers must have the ability to remove microbiological contaminants in the water to Environmental Protection Agency specified levels; thereby reducing the effects of acute debilitating illnesses to soldiers.

We offer our individual water treatment device (IWTD), which allows a soldier in the field to derive biologically safe water from any fresh water source. Our IWTD is available in both in-line and point-of-use configurations. Our IWTD is one of the few portable filters that have been validated by the military to meet the NSF Protocol P248 standard. It has also been approved by U.S. Army Public Health Command (USAPHC) and U.S. Army Test and Evaluation Command (ATEC) for deployment. To date, we have received purchase orders for approximately 2,000 IWTDs from individual units of the U.S. armed forces and could become more widely used by soldiers in the future.

TABLE OF CONTENTS

In January 2013, the U.S. Army issued a request for proposal (RFP) relating to an IWTD, Nephros submitted its response to this RFP on February 25th. The U.S. Army may award several, one or no contracts as a result of this solicitation. The maximum quantity of all contracts combined is not to exceed 450,000 units or \$45,000,000 over a 3 year period. The RFP evaluation period may take up to 6 months before an award is made, if at all.

Dialysis Centers Blood. The current standard of care in the U.S. for patients with chronic renal failure is HD, a process in which toxins are cleared via diffusion. Patients typically receive HD treatment at least 3 times weekly for 3 – 4 hours per treatment. HD is most effective in removing smaller, easily diffusible toxins. For patients with acute renal failure, the current standard of care in the U.S. is hemofiltration (HF), a process where toxins are cleared via convection. HF offers a much better removal of larger sized toxins when compared to HD. However, HF treatment is performed on a daily basis, and typically takes 12 – 24 hours.

Hemodiafiltration (HDF) is an alternative dialysis modality that combines the benefits of HD and HF into a single therapy by clearing toxins using both diffusion and convection. Though not widely used in the U.S., HDF is much more prevalent in Europe and is performed in approximately 16% of patients. Clinical experience and literature show the following multiple clinical and patient benefits of HDF:

- Enhanced clearance of middle and large molecular weight toxins
- Improved survival – up to a 35% reduction in mortality risk
- Reduction in the occurrence of dialysis-related amyloidosis
- Reduction in inflammation
- Reduction in medication such as EPO and phosphate binders
- Improved patient quality of life
- Reduction in number of hospitalizations and overall length of stay

However, like HF, HDF can be resource intensive and can require a significant amount of time to deliver one course of treatment.

We have developed a modified approach to HDF which is more patient-friendly, less resource-intensive, and can be used in conjunction with current HD machines. We refer to our approach as an on-line mid-dilution hemodiafiltration (mid-HDF) system and it consists of our OLpur H2H Module and OLpur MD220 Hemodiafilter. On April 30, 2012, we announced that we received clearance from the U.S. Food and Drug Administration to market the OLpur H2H Module and OLpur MD220 Hemodiafilter for use with a UF controlled hemodialysis machine that provides ultrapure dialysate in accordance with current ANSI/AAMI/ISO standards, for the treatment of patients with chronic renal failure in the United States. Like HD, on-line mid-HDF treatment is given to patients at least 3 times weekly for 3 – 4 hours per treatment. Our mid-HDF system is the only HDF system of its kind to be cleared by the FDA to date.

We are currently preparing our OLpur H2H Modules and manufacturing our OLpur MD220 Hemodiafilters in readiness for market release. We expect to place a mid-HDF system in a U.S. dialysis clinic in Q2. We have not begun to broadly market our mid-HDF system and plan to seek a commercialization partner in the U.S.

We were incorporated under the laws of the State of Delaware in April 1997. Our principal executive offices are located at 41 Grand Avenue, River Edge, New Jersey, 07661, and our telephone number is (201) 343-5202. We also have an office in Dublin, Ireland. For more information about Nephros, please visit our website at www.nephros.com.

Going Concern

The accompanying financial statements have been prepared assuming that we will continue as a going concern. Our recurring losses and difficulty in generating sufficient cash flow to meet our obligations and sustain our operations raise substantial doubt about our ability to continue as a going concern. Our consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

TABLE OF CONTENTS

We have incurred significant losses in operations in each quarter since inception. For the years ended December 31, 2012 and 2011, we incurred net losses of \$3,262,000 and \$2,360,000, respectively. In addition, we have not generated positive cash flow from operations for the years ended December 31, 2012 and 2011. To become profitable, we must increase revenue substantially and achieve and maintain positive gross and operating margins. If we are not able to increase revenue and gross and operating margins sufficiently to achieve profitability, our results of operations and financial condition will be materially and adversely affected.

On February 4, 2013, we issued a senior secured note to Lambda Investors LLC in the principal amount of \$1.3 million. We expect that the proceeds from the note will allow us to fund our operations through May 2013. The note bears interest at the rate of 12% per annum and matures on August 4, 2013, at which time all principal and accrued interest will be due. However, we have agreed to prepay amounts due under the note with the cash proceeds from (a) a rights offering and an offering of a discounted exercise price to public warrant holders, each as further described in the note, (b) any other equity or debt financing, or (c) the issuance or incurrence of any other indebtedness or the sale of any assets outside the ordinary course of business, in each case prior to the maturity date. If we do not pay principal and interest under the note when due, the interest rate increases to 16% per annum. In connection with the note, we have agreed to pay Lambda Investors an 8%, or \$104,000, sourcing/transaction fee. In addition, we will pay Lambda Investors legal fees and other expenses incurred in connection with the note in the amount of \$50,000 as well as Lambda Investors legal fees and other expenses incurred in connection with the rights offering in the amount of \$50,000. Those payments will be paid upon the completion of the rights offering or, if earlier, upon the maturity of the note. As additional consideration, we agreed to extend by one year the expiration date of all of Lambda's outstanding warrants to March 2017. In addition, we have undertaken to conduct the rights offering described in this prospectus.

During the period when the rights offering is open, we expect to offer to our public warrant holders holding the warrants issued at the close of the March 2011 rights offering a one-time right, at their option, to exercise such warrants for an exercise price of \$0.30 per share discounted from \$0.40 per share.

There can be no assurance that our future cash flow will be sufficient to meet our obligations and commitments. If we are unable to generate sufficient cash flow from operations in the future to service our commitments, we will be required to adopt alternatives, such as seeking to raise debt or equity capital, curtailing its planned activities or ceasing its operations. There can be no assurance that any such actions could be effected on a timely basis or on satisfactory terms or at all, or that these actions would enable us to continue to satisfy its capital requirements.

Recent Developments

On April 23, 2012, we entered into a strategic license and supply agreement with Medica S.p.A. for ultrafiltration products granting us global rights, with specific exceptions, to market products based on Medica's proprietary Medisulfone ultrafiltration technology. Under the terms of the agreement, Medica will provide an exclusive license to us for its ultrafiltration technology for the period April 23, 2012 to December 31, 2022. In exchange for the license, we paid Medica €1,100,000 in two installments €500,000 on April 23, 2012 and €600,000 on February 4, 2013. The remaining €400,000 is to be paid by June 30, 2013. As part of the agreement, we have granted to Medica 300,000 options to purchase our common stock which will vest over the first three years of the agreement. For the period April 23, 2014 through December 31, 2022, we will pay Medica a royalty of 3% of net sales of filtration products related to the licensed technology.

Manufacturing and Suppliers

We do not, and do not intend to in the near future, manufacture any of our products and components. With regard to the OLpur MD190 and MD220, on June 27, 2011, we entered into a license agreement, effective July 1, 2011, with

Bellco S.r.l., an Italy-based supplier of hemodialysis and intensive care products, for the manufacturing, marketing and sale of our patented mid-dilution dialysis filters (MD190, MD220), referred to herein as the Products. Under the agreement, we granted Bellco a license to manufacture, market and sell the Products under its own name, label and CE mark in Italy, France, Belgium, Spain and Canada on an exclusive basis, and to do the same on a non-exclusive basis in the United Kingdom and Greece and, upon our written approval, other European countries where we do not sell the Products as well as non-European countries, all such countries herein referred to as the Territory.

TABLE OF CONTENTS

In exchange for the rights granted to it under the Bellco license agreement through December 31, 2014, Bellco agreed to pay us installment payments of €500,000, €750,000, €600,000 on July 1, 2011, January 15, 2012 and January 15, 2013, respectively, and all three payments have been received. Such installment payments, herein referred to as the Installment Payments, are Bellco's sole financial obligations through December 31, 2014. Beginning on January 1, 2015 through and including December 31, 2016, Bellco will pay to us a royalty based on the number of units of Products sold per year in the Territory as follows: for the first 103,000 units sold, Bellco will pay €4.50 per unit; thereafter, Bellco will pay €4.00 per unit. Bellco must meet minimum sales targets of 15,000 units in each quarter of 2015 and 2016. If Bellco fails to meet a quarterly minimum, the license in Italy, France, Belgium, Spain and Canada will, at our discretion, convert to a non-exclusive one. All sums payable under the agreement will be paid in Euros, as adjusted to account for currency exchange fluctuations between the Euro and the U.S. dollar that occur between July 1, 2011, the effective date of the agreement, and the date of payment.

Sales and Marketing

Under the Bellco license agreement, as discussed above, we granted Bellco a license to manufacture, market and sell the Products under its own name, label and CE mark in the Territory. In addition, if requested by us, Bellco will be required to sell the Products to our distributors in the Territory.

Our New Jersey office oversees global sales and marketing activity of our water filter products. In May 2012 we signed a non-exclusive U.S. distributor agreement with Vantage. In July 2012 we signed non-exclusive U.S. distributor agreements with TQM, Ameriwater and OLS. In February 2013 we announced the signing of a non-exclusive distributor agreement with Chem-Aqua, Inc. to distribute Nephros's innovative ultrafilters in North American healthcare facilities. Chem-Aqua is a global full service provider of water treatment programs and services.

We believe that the addition of Nephros ultrafilters to Chem-Aqua's product line will enable them to offer a comprehensive multi-barrier approach for prevention of waterborne infection in the healthcare institutions they service. Chem-Aqua is now beginning launch efforts for our products, including scheduling training sessions and promoting ultrafilters to the hospital market.

For each prospective market for our water filter products, we continue to pursue alliance opportunities for joint product development and distribution. Our water filter manufacturer in Europe shares certain intellectual property rights with us for one of our Dual Stage Ultrafilter (DSU) designs.

Research and Development

Our research and development efforts continue on several fronts directly related to our current product lines. We are also working on additional machine devices, next-generation user interface enhancements and other product enhancements.

We were awarded research contracts from the Office of Naval Research (ONR) for development of a potable dual-stage military water purifying filter. The initial research contract was awarded in 2006 for approximately \$1 million and work was completed in August 2009. The second research contract was awarded in August 2009 and was an expansion of the 2006 ONR contract which is being performed as part of the Marine Corps Advanced Technology Demonstration (ATD) project. The primary objective of this expanded research program is to select concepts and functional prototype filter/pump units which were developed during the first phase of the project, and further develop them into smaller field-testable devices that can be used for military evaluation purposes. An advantage of our ultrafilter is the removal of viruses which are not removed with commercially available off-the-shelf microfilter devices. Such devices generally rely on a secondary chemical disinfection step to make the water safe to drink. The

expanded contract also includes research geared toward improving membrane performance, improving device durability, developing larger squad-level water purifier devices, and investigating desalination filter/pump devices for emergency-use purposes.

Approximately \$317,000 and \$463,000 has been billed to the projects during the years ended December 31, 2012 and 2011, respectively. Approximately \$900,000 of revenue has been recognized on the initial research contract which concluded in August 2009. Approximately \$1,800,000 has been recognized on the second research contract awarded in August 2009. This research contract project ended in March 2012.

TABLE OF CONTENTS

In March 2010, we entered into a development agreement with STERIS Corporation to jointly develop filtration-based products for medical device applications. We received an initial payment upon entering into the agreement of \$40,000 and were eligible to receive additional payments upon successful completion of product development milestones. During 2010, we completed the initial milestone under the joint collaboration agreement with STERIS Corporation and further milestones under the agreement during the first three quarters of 2011. Completion of these milestones resulted in aggregate payments to us of \$100,000 during 2010, of which approximately \$67,000 was recognized in 2010 and approximately \$33,000 was recognized in 2011. The remaining milestones, when completed, will result in additional payments of \$60,000.

Major Customers

For the years ended December 31, 2012 and 2011, four customers accounted for 79% and 83%, respectively, of the Company's sales. In addition, as of December 31, 2012 and 2011, those four customers accounted for 88% and 89%, respectively, of the Company's accounts receivable.

Competition

With respect to the water filtration market, we expect to compete with companies that are well entrenched in the water filtration domain. These companies include Pall Corporation, which manufactures end-point water filtration systems, as well as 3M and Siemens. Our methods of competition in the water filtration domain include:

developing and marketing products that are designed to meet critical and specific customer needs more effectively than competitive devices;

offering unique attributes that illustrate our product reliability, user-friendliness, and performance capabilities; selling products to specific customer groups where our unique product attributes are mission-critical; and pursuing alliance opportunities for joint product development and distribution.

The dialyzer and renal replacement therapy market is subject to intense competition. Accordingly, our future success will depend on our ability to meet the clinical needs of physicians and nephrologists, improve patient outcomes and remain cost-effective for payers.

We compete with other suppliers of ESRD therapies, supplies and services. These suppliers include Fresenius Medical Care AG, and Gambro AB, currently two of the primary machine manufacturers in hemodialysis. At present, Fresenius Medical Care AG and Gambro AB also manufacture HDF machines.

The markets in which we sell our dialysis products are highly competitive. Our competitors in the sale of hemodialysis products include Gambro AB, Baxter International Inc., Fresenius Medical Care AG, Asahi Kasei Medical Co. Ltd., B. Braun Melsungen AG, Nipro Medical Corporation Ltd., Nikkiso Co., Ltd., Terumo Medical Corporation and Toray Medical Co., Ltd.

Other competitive considerations include pharmacological and technological advances in preventing the progression of ESRD in high-risk patients such as those with diabetes and hypertension, technological developments by others in the area of dialysis, the development of new medications designed to reduce the incidence of kidney transplant rejection and progress in using kidneys harvested from genetically-engineered animals as a source of transplants.

We are not aware of any other companies using technology similar to ours in the treatment of ESRD. Our competition would increase, however, if companies that currently sell ESRD products, or new companies that enter the market, develop technology that is more efficient than ours. We believe that in order to become competitive in this market, we

will need to develop and maintain competitive products and take and hold sufficient market share from our competitors. Therefore, we expect our methods of competing in the ESRD marketplace to include:

58

TABLE OF CONTENTS

continuing our efforts to develop, have manufactured and sell products which, when compared to existing products, perform more efficiently and are available at prices that are acceptable to the market;

displaying our products and providing associated literature at major industry trade shows in the United States; initiating discussions with dialysis clinic medical directors, as well as representatives of dialysis clinical chains, to develop interest in our products;

pursuing alliance opportunities in certain territories for distribution of our products and possible alternative manufacturing facilities; and

entering into license agreements similar to the Bellco S.r.l. agreement to expand market share.

Intellectual Property

Patents

We protect our technology and products through patents and patent applications. In addition to the United States, we also applied for patents in other jurisdictions, such as the European Patent Office, Canada and Japan, to the extent we deem appropriate. We have built a portfolio of patents and applications covering our products, including their hardware design and methods of hemodiafiltration.

We believe that our patent strategy will provide a competitive advantage in our target markets, but our patents may not be broad enough to cover our competitors' products and may be subject to invalidation claims. Our U.S. patents for the Method and Apparatus for Efficient Hemodiafiltration and for the Dual-Stage Filtration Cartridge, have claims that cover the OLpur MDHDF filter series and the method of hemodiafiltration employed in the operation of the products. Technological developments in ESRD therapy could reduce the value of our intellectual property. Any such reduction could be rapid and unanticipated. We have issued patents on our water filtration products and applications in process to cover various applications in residential, commercial, and remote environments.

As of December 31, 2012, we have eighteen issued U.S. patents; one issued Eurasian patent; seven Mexican patents, four South Korean patents, three Russian patents, six Chinese patents, nine French patents, nine German patents, five Israeli patents, seven Italian patents, three Spanish patents, nine United Kingdom patents, fourteen Japanese patents, three Hong Kong patents, nine Canadian patents, one Australian patent, two patents in Brazil, one patent in Sweden and one patent in Netherlands. Our issued U.S. patents expire between 2018 and 2027. In addition, we have three pending U.S. patent applications, four pending patent applications in Canada, five pending patent applications in the European Patent Office, two pending patent applications in Brazil, one pending patent application in China, four pending patent applications in Israel, two pending patent applications in India and one pending patent application in South Korea. Our pending patent applications relate to a range of dialysis technologies, including cartridge configurations, cartridge assembly, substitution fluid systems, and methods to enhance toxin removal.

Trademarks

As of December 31, 2012, we secured registrations of the trademarks CENTRAPUR, H2H, OLpur and the Arrows Logo in the European Union. Applications for these trademarks are pending registration in the United States. We also have applications for registration of a number of other marks pending in the United States Patent and Trademark Office.

Governmental Regulation

The research and development, manufacturing, promotion, marketing and distribution of our ESRD therapy products in the United States, Europe and other regions of the world are subject to regulation by numerous governmental

authorities, including the FDA, the European Union and analogous agencies.

United States

The FDA regulates the manufacture and distribution of medical devices in the United States pursuant to the FDC Act.
All of our ESRD therapy products are regulated in the United States as medical devices by

59

TABLE OF CONTENTS

the FDA under the FDC Act. Under the FDC Act, medical devices are classified in one of three classes, namely Class I, II or III, on the basis of the controls deemed necessary by the FDA to reasonably ensure their safety and effectiveness.

Class I devices are medical devices for which general controls are deemed sufficient to ensure their safety and effectiveness. General controls include provisions related to (1) labeling, (2) producer registration, (3) defect notification, (4) records and reports and (5) quality service requirements, or QSR.

Class II devices are medical devices for which the general controls for the Class I devices are deemed not sufficient to ensure their safety and effectiveness and require special controls in addition to the general controls. Special controls include provisions related to (1) performance and design standards, (2) post-market surveillance, (3) patient registries and (4) the use of FDA guidelines.

Class III devices are the most regulated medical devices and are generally limited to devices that support or sustain human life or are of substantial importance in preventing impairment of human health or present a potential, unreasonable risk of illness or injury. Pre-market approval by the FDA is the required process of scientific review to ensure the safety and effectiveness of Class III devices.

Before a new medical device can be introduced to the market, FDA clearance of a pre-market notification under Section 510(k) of the FDC Act or FDA clearance of a pre-market approval, or PMA, application under Section 515 of the FDC Act must be obtained. A Section 510(k) clearance will be granted if the submitted information establishes that the proposed device is substantially equivalent to a legally marketed Class I or Class II medical device or to a Class III medical device for which the FDA has not called for pre-market approval under Section 515. The Section 510(k) pre-market clearance process is generally faster and simpler than the Section 515 pre-market approval process.

For any devices cleared through the Section 510(k) process, modifications or enhancements that could significantly affect the safety or effectiveness of the device or that constitute a major change to the intended use of the device will require a new Section 510(k) pre-market notification submission. Accordingly, if we do obtain Section 510(k) pre-market clearance for any of our ESRD therapy and DSU products, we will need to submit another Section 510(k) pre-market notification if we significantly affect that product's safety or effectiveness through subsequent modifications or enhancements.

On July 1, 2009, we received FDA clearance of the DSU to be used to filter biological contaminants from water and bicarbonate concentrate used in hemodialysis procedures.

On June 30, 2010, we received a final decision letter from the FDA for our 510(k) submission which stated that the FDA could not reach a substantial equivalence determination for our hemodiafiltration (HDF) system. On August 11, 2011, Nephros filed a new 510(k) application with the FDA for clearance of the Company's hemodiafiltration (HDF) system for end-stage renal disease. On April 30, 2012, the Company announced that it received 510(k) clearance from the FDA to market the OLpur H2H Module and OLpur MD220 Hemodiafilter for use with a UF controlled hemodialysis machine that provides ultrapure dialysate in accordance with current ANSI/AAMI/ISO standards, for the treatment of patients with chronic renal failure in the United States.

The FDC Act requires that medical devices be manufactured in accordance with the FDA's current QSR regulations which require, among other things, that:

the design and manufacturing processes be regulated and controlled by the use of written procedures;
the ability to produce medical devices which meet the manufacturer's specifications be validated by extensive and detailed testing of every aspect of the process;
any deficiencies in the manufacturing process or in the products produced be investigated;
detailed records be kept and a corrective and preventative action plan be in place; and

TABLE OF CONTENTS

manufacturing facilities be subject to FDA inspection on a periodic basis to monitor compliance with QSR regulations.

If violations of the applicable QSR regulations are noted during FDA inspections of our manufacturing facilities or the manufacturing facilities of our contract manufacturers, there may be a material adverse effect on our ability to produce and sell our products.

In addition to the requirements described above, the FDC Act requires that:

all medical device manufacturers and distributors register with the FDA annually and provide the FDA with a list of those medical devices which they distribute commercially;
information be provided to the FDA on death or serious injuries alleged to have been associated with the use of the products, as well as product malfunctions that would likely cause or contribute to death or serious injury if the malfunction were to recur; and
certain medical devices not cleared with the FDA for marketing in the United States meet specific requirements before they are exported.

European Union

The European Union began to harmonize national regulations comprehensively for the control of medical devices in member nations in 1993, when it adopted its Medical Devices Directive 93/42/EEC. The European Union directive applies to both the manufacturer's quality assurance system and the product's technical design and discusses the various ways to obtain approval of a device (dependent on device classification), how to properly CE Mark a device and how to place a device on the market.

The regulatory approach necessary to demonstrate to the European Union that the organization has the ability to provide medical devices and related services that consistently meet customer requirements and regulatory requirements applicable to medical devices requires the certification of a full quality management system by a notified body. Initially, we engaged TÜV Rheinland of North America, Inc. (TÜV Rheinland) as the notified body to assist us in obtaining certification to the International Organization for Standardization, or ISO, 13485/2003 standard, which demonstrates the presence of a quality management system that can be used by an organization for design and development, production, installation and servicing of medical devices and the design, development and provision of related services.

European Union requirements for products are set forth in harmonized European Union standards and include conformity to safety requirements, physical and biological properties, construction and environmental properties, and information supplied by the manufacturer. A company demonstrates conformity to these requirements, with respect to a product, by pre-clinical tests, biocompatibility tests, qualification of products and packaging, risk analysis and well-conducted clinical investigations approved by ethics committees.

Once a manufacturer's full quality management system is determined to be in compliance with ISO 13485/2003 and other statutory requirements, and the manufacturer's products conform to harmonized European standards, the notified body will recommend and document such conformity. The manufacturer will receive a CE marking and ISO certifications, and then may place a CE mark on the relevant products. The CE mark, which stands for Conformité Européenne, demonstrates compliance with the relevant European Union requirements. Products subject to these provisions that do not bear the CE mark cannot be imported to, or sold or distributed within, the European Union.

In July 2003, we received a certification from TÜV Rheinland that our quality management system conforms to the requirements of the European Community. At the same time, TÜV Rheinland approved our use of the CE marking

with respect to the design and production of high permeability hemodialyzer products for ESRD therapy. In April 2010, we changed our notified body from TÜV Rheinland to BSI America, Inc. and expanded our scope to include design and development and production of water filters.

Under the Bellco license agreement, as discussed above, we granted Bellco a license to manufacture, market and sell the Products under its own name, label and CE mark in the Territory. In addition, if requested by us, Bellco will be required to sell the Products to our distributors in the Territory.

TABLE OF CONTENTS

Regulatory Authorities in Regions Outside of the United States and the European Union

We also plan to sell our ESRD therapy products in foreign markets outside the United States which are not part of the European Union. Requirements pertaining to medical devices vary widely from country to country, ranging from no health regulations to detailed submissions such as those required by the FDA. We believe the extent and complexity of regulations for medical devices such as those produced by us are increasing worldwide. We anticipate that this trend will continue and that the cost and time required to obtain approval to market in any given country will increase, with no assurance that such approval will be obtained. Our ability to export into other countries may require compliance with ISO 13485, which is analogous to compliance with the FDA's QSR requirements. In November 2007 and May 2011, the Therapeutic Products Directorate of Health Canada, the Canadian health regulatory agency, approved our OLpur MD220 Hemodiafilter and our DSU, respectively for marketing in Canada. Other than the CE marking and Canadian approval of our OLpur MD220 Hemodiafilter and DSU products, we have not obtained any regulatory approvals to sell any of our products and there is no assurance that any such clearance or certification will be issued.

Reimbursement

In both domestic markets and markets outside of the United States, sales of our ESRD therapy products will depend in part, on the availability of reimbursement from third-party payers. In the United States, ESRD providers are reimbursed through Medicare, Medicaid and private insurers. In countries other than the United States, ESRD providers are also reimbursed through governmental and private insurers. In countries other than the United States, the pricing and profitability of our products generally will be subject to government controls. Despite the continually expanding influence of the European Union, national healthcare systems in its member nations, reimbursement decision-making included, are neither regulated nor integrated at the European Union level. Each country has its own system, often closely protected by its corresponding national government.

Product Liability and Insurance

The production, marketing and sale of kidney dialysis products have an inherent risk of liability in the event of product failure or claim of harm caused by product operation. We have acquired product liability insurance for our products in the amount of \$5 million. A successful claim in excess of our insurance coverage could materially deplete our assets. Moreover, any claim against us could generate negative publicity, which could decrease the demand for our products, our ability to generate revenues and our profitability.

Some of our existing and potential agreements with manufacturers of our products and components of our products do or may require us (1) to obtain product liability insurance or (2) to indemnify manufacturers against liabilities resulting from the sale of our products. If we are not able to maintain adequate product liability insurance, we will be in breach of these agreements, which could materially adversely affect our ability to produce our products. Even if we are able to obtain and maintain product liability insurance, if a successful claim in excess of our insurance coverage is made, then we may have to indemnify some or all of our manufacturers for their losses, which could materially deplete our assets.

Employees

As of December 31, 2012, we employed a total of 10 employees, 6 of whom were full time and 1 who is employed on a part-time basis. We also have engaged 2 consultants on an ongoing basis. Of the 12 total employees and consultants,

4 are employed in a sales/marketing/customer support capacity, 4 in general and administrative and 4 in research and development.

Properties

Our U.S. facilities are located at 41 Grand Avenue, River Edge, New Jersey, 07661 and consist of approximately 4,688 square feet of space. The term of the rental agreement is for one year commencing December 1, 2012 with a monthly cost of approximately \$8,399. We use our facilities to house our corporate headquarters and research facilities.

Our facilities in Europe are currently located at A5 Clonlara Avenue, Baldonnell Business Park, Dublin, Ireland, and consist of approximately 500 square feet of space. The lease agreement was entered into on

TABLE OF CONTENTS

July 1, 2010. The lease term is renewable for 6 month terms with a 2 month notice to discontinue, on a rolling basis. Our monthly cost is 500 Euro (approximately \$700).

We use our facilities to house our accounting, operations and customer service departments. We believe this space will be adequate to meet our needs. We do not own any real property for use in our operations or otherwise.

Legal Proceedings

There are no currently pending legal proceedings and, as far as we are aware, no governmental authority is contemplating any proceeding to which we are a party or to which any of our properties is subject.

Available Information

We make available free of charge on our website (<http://www.nephros.com>) our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports, as soon as reasonably practicable after such material is electronically filed with or furnished to the SEC. We provide electronic or paper copies of filings free of charge upon request. The SEC maintains an Internet site that contains reports, proxy and information statements and other information regarding issuers that file with the SEC at <http://www.sec.gov>.

TABLE OF CONTENTS**MANAGEMENT****Director Classes**

Our Board of Directors is currently composed of five directors. Our Board of Directors is divided into three classes. Each year, one class is elected to serve for three years. The business address for each director for matters regarding our company is 41 Grand Avenue, River Edge, New Jersey 07661.

In connection with our September 2007 financing, we entered into an investor rights agreement with the 2007 investors pursuant to which we agreed to take such corporate actions as may be required, among other things, to entitle Lambda Investors (i) to nominate two individuals having reasonably appropriate experience and background to our Board to serve as directors until their respective successor(s) are elected and qualified, (ii) to nominate each successor to the Lambda Investors nominees, provided that any successor shall have reasonably appropriate experience and background, and (iii) to direct the removal from the Board of any director nominated under the foregoing clauses (i) or (ii). Under the investor rights agreement, we are required to convene meetings of the Board of Directors at least once every three months. If we fail to do so, a Lambda Investors director will be empowered to convene such meeting.

Class I Directors Term Expiring 2015

| Name | Age (as of 2/26/13) | Director Since | Business Experience For Last Five Years |
|-----------------|---------------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Arthur H. Amron | 56 | 2007 | Arthur H. Amron has served as a director of our company since September 2007. Mr. Amron is a Partner of Wexford Capital LP, an SEC-registered investment advisor and serves as its General Counsel. Mr. Amron also actively participates in various private equity transactions, particularly in the bankruptcy and restructuring areas, and has served on the boards and creditors committees of a number of public and private companies in which Wexford has held investments. Mr. Amron has also served as a director of Rhino GP LLC, which is the general partner of Rhino Resource Partners LP, a publicly traded master limited partnership (NYSE-RNO), since October 2010. From 1991 to 1994, Mr. Amron was an Associate at Schulte Roth & Zabel LLP, specializing in corporate and bankruptcy law, and from 1984 to 1991, Mr. Amron was an Associate at Debevoise & Plimpton LLP specializing in corporate litigation and bankruptcy law. Mr. Amron holds a J.D. from Harvard University, a B.A. in Political Theory from Colgate University and is a member of the New York Bar. Among other experience, qualifications, attributes and skills, Mr. Amron's legal training and experience in the capital markets, as well as his experience serving on boards of directors of other public companies, led to the conclusion of our Board that he should serve as a director of our company in light of our business |

and structure.

TABLE OF CONTENTS

| Name | Age (as of 2/26/13) | Director Since | Business Experience For Last Five Years |
|-------------------|---------------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| James S. Scibetta | 47 | 2007 | James S. Scibetta has served as a director of our company since November 2007 and as Chairman of our Board since September 2008. Since August 2008, Mr. Scibetta has been the Chief Financial Officer of Pacira Pharmaceuticals, Inc., a specialty pharmaceutical company. Prior to that, Mr. Scibetta was Chief Financial Officer of Bioenvision, Inc., a biopharmaceutical company, from December 2006 until its acquisition by Genzyme, Inc. in October 2007. From September 2001 to November 2006, Mr. Scibetta was Executive Vice President and Chief Financial Officer of Merrimack Pharmaceuticals, Inc., and he was a member of the Board of Directors of Merrimack from April 1998 to March 2004. Mr. Scibetta formerly served as a senior investment banker at Shattuck Hammond Partners, LLC and PaineWebber Inc., providing capital acquisition, mergers and acquisitions, and strategic advisory services to healthcare companies. Mr. Scibetta holds a B.S. in Physics from Wake Forest University, and an M.B.A. in Finance from the University of Michigan. He completed executive education studies in the Harvard Business School Leadership & Strategy in Pharmaceuticals and Biotechnology program. Among other experience, qualifications, attributes and skills, Mr. Scibetta's extensive management experience in the pharmaceutical industry, as well as his investment banking experience, led to the conclusion of our Board that he should serve as a director of our company in light of our business and structure. |

Class II Directors Term Expiring 2013

| Name | Age (as of 2/26/13) | Director Since | Business Experience For Last Five Years |
|----------------|---------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Paul A. Mieyal | 43 | 2007 | Paul A. Mieyal has served as a director of our company since September 2007. Dr. Mieyal has been a Vice President of Wexford Capital LP since October 2006. From January 2000 through September 2006, he was Vice President in charge of healthcare investments for Wechsler & Co., Inc., a private investment firm and registered broker-dealer. Dr. Mieyal is also a director of Nile Therapeutics, Inc., which is a publicly traded company. Dr. Mieyal received his Ph.D. in Pharmacology from New York Medical College, a B.A. in Chemistry and Psychology from Case Western Reserve University, and is a Chartered Financial Analyst. Dr. Mieyal served as acting Chief Executive Officer from April 6, 2010 until April 20, 2012. Among other experience, qualifications, attributes and skills, Dr. Mieyal's pharmacology and chemistry |

education, his experience in investment banking in the healthcare industry, as well as his experience serving on boards of directors of other public companies, led to the conclusion of our Board that he should serve as a director of our company in light of our business and structure.

TABLE OF CONTENTS

| Name | Age (as of 2/26/13) | Director Since | Business Experience For Last Five Years |
|---------------------|---------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| John C. Houghton | 49 | 2012 | Mr. Houghton has over 25 years of commercialization experience in the pharmaceutical and medical device fields. He has direct experience in building out global commercial organizations including marketing, sales, sales operations, customer service, business analytics and new product development and has also been directly responsible for successfully licensing products and leading joint ventures and partnerships. Mr. Houghton most recently served as President and CEO of CorMedix Inc. (NYSE-Amex: CRMD), a pharmaceutical company focused on therapeutic products for the treatment of cardio-renal disease. While President and CEO, Mr. Houghton led the acquisition of the company's product candidates and the completion of its initial public offering. Prior to assuming the role of President and CEO, he was the Chief Business Officer for CorMedix. Before joining CorMedix, Mr. Houghton established the global sales and marketing infrastructure for the Biotech division of Stryker Corp. (NYSE: SYK). Prior to Stryker, he worked with Aventis (NYSE: SNY) and predecessor companies for more than 14 years. During his time at Aventis he led the global marketing of Nasacort, served as commercial lead on the Aventis-Millennium inflammation collaboration, and functioned as the global new products commercialization head for respiratory, inflammation, cardiovascular, and metabolism products. Mr. Houghton received his B.Sc. from Liverpool John Moores University, United Kingdom. Mr. Houghton's extensive experience in leadership roles in connection with sales and marketing in the pharmaceutical and medical device fields, as well as his management experience, led to the conclusion of our Board that he should serve as a director of our company in light of our business and structure. |

Class III Director Term Expiring 2014

| Name | Age (as of 2/26/13) | Director Since | Business Experience For Last Five Years |
|-------------------------|---------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lawrence J. Centella | 71 | 2001 | Lawrence J. Centella has served as a director of our company since January 2001. Mr. Centella serves as President of Renal Patient Services, LLC, a company that owns and operates dialysis centers, and has served in such capacity since June 1998. From 1997 to 1998, Mr. Centella served as Executive Vice President and Chief Operating Officer of Gambro Healthcare, Inc., an integrated dialysis company that manufactured dialysis equipment, supplied dialysis equipment and operated dialysis |

clinics. From 1993 to 1997, Mr. Centella served as President and Chief Executive Officer of Gambro Healthcare Patient Services, Inc. (formerly REN Corporation). Prior to that, Mr. Centella served as President of COBE Renal Care, Inc., Gambro Hospital, Inc., LADA International, Inc. and Gambro, Inc. Mr. Centella is also the founder of LADA International, Inc. Mr. Centella received a B.S. from DePaul University. Among other experience, qualifications, attributes and skills, Mr. Centella's extensive experience in managing companies engaged in the business of dialysis centers and equipment, led to the conclusion of our Board that he should serve as a director of our company in light of our business and structure.

TABLE OF CONTENTS

Board of Director Meetings

The business of our company is under the general oversight of the Board of Directors as provided by the laws of Delaware and our bylaws. During the fiscal year ended December 31, 2012, the Board of Directors held two meetings and took action by unanimous written consent in lieu of a meeting four times. Each person who was a director during 2012 attended at least 75% of the Board of Directors meetings and the meetings of the committees on which he served.

Each of our directors is encouraged to be present at the annual meeting of our stockholders absent exigent circumstances that prevents his attendance. Where a director is unable to attend the annual meeting in person but is able to do so by electronic conferencing, we will arrange for the director's participation by means where the director can hear, and be heard by, those present at the meeting. One of our then four directors attended the 2012 annual meeting.

Selection of Nominees for the Board of Directors

The entire Board is responsible for nominating members for election to the Board and for filling vacancies on the Board that might occur between annual meetings of the stockholders. The Board is also responsible for identifying, screening, and recommending candidates for prospective Board membership. When formulating its membership recommendations, the Board also considers any qualified candidate for an open Board position timely submitted by our stockholders in accordance with our established procedures.

The Board will evaluate and recommend candidates for membership on the Board consistent with criteria, including: personal qualities and characteristics, accomplishments, and reputation in the business community; financial, regulatory, and business experience; current knowledge and contacts in the industry in which we do business; ability and willingness to commit adequate time to Board and committee matters; fit of the individual's skills with those of other directors and potential directors in building a Board that is effective and responsive to our needs; independence; and any other factors the Board deems relevant, including diversity of viewpoints, background, experience, and other demographics. In addition, prior to nominating an existing director for re-election, the Board will consider and review an existing director's Board and committee attendance and performance; length of Board service; experience, skills, and contributions that the existing director brings to the Board; and independence.

To identify nominees, the Board will rely on personal contacts as well as its knowledge of persons in our industry. We have not previously used an independent search firm to identify nominees.

The Board will consider stockholder recommendations of candidates when the recommendations are properly submitted. Stockholder recommendations should be submitted to us under the procedures discussed in Procedures For Security Holder Submission of Nominating Recommendations which is available on our website at www.nephros.com, by clicking on the Investor Relations link, then the Corporate Governance link. Written notice of any nomination must be timely delivered to Nephros, Inc., 41 Grand Avenue, River Edge, New Jersey 07661, Attention: Board of Directors, c/o Chief Financial Officer.

The Board uses a variety of methods for identifying and evaluating non-incumbent candidates for director. The Board regularly assesses the appropriate size and composition of the Board, the needs of the Board and the respective committees of the Board as well as the qualifications of candidates in light of these needs. The Board will solicit recommendations for nominees from persons that the Board believes are likely to be familiar with qualified candidates, including members of the Board, our management or a professional search firm. The evaluation of these

candidates may be based solely upon information provided to the Board or may also include discussions with persons familiar with the candidate, an interview of the candidate or other actions the Board deems appropriate, including the use of third parties to review candidates.

Director Independence

Our Board of Directors has determined that all of the directors are independent within the meaning of the Nasdaq independence standards other than Mr. Houghton.

Committees

Our Board of Directors has established an Audit Committee and a Compensation Committee. These committees are each governed by a specific charter, each of which is available on our website at

TABLE OF CONTENTS

www.nephros.com, by clicking on the Investor Relations link, and then the Corporate Governance link. All members of these committees are independent directors.

The Board of Directors does not currently have a Nominating and Corporate Governance Committee given that the entire Board participates in discussions and decisions regarding identifying qualified individuals to become Board members, determining the composition of the Board and its committees, in monitoring a process to assess Board effectiveness and developing and implementing corporate procedures and policies.

Audit Committee

The Audit Committee is composed of James S. Scibetta (Chairman) and Lawrence J. Centella, neither of whom is our employee and each of whom has been determined by the Board of Directors to be independent under the Nasdaq listing standards. The purpose of the Audit Committee is to (i) oversee accounting, auditing, and financial reporting processes; (ii) assess the integrity of our financial statements; (iii) ensure that our internal controls and procedures are designed to promote compliance with accounting standards and applicable laws and regulations; and (iv) appoint and evaluate the qualifications and independence of our independent registered public accounting firm. The Audit Committee held four meetings in 2012.

The Board of Directors has determined that all Audit Committee members are financially literate under the current listing standards of Nasdaq. The Board also determined that Mr. Scibetta qualifies as an audit committee financial expert as defined by the Securities and Exchange Commission, or SEC, rules adopted pursuant to the Sarbanes-Oxley Act of 2002 based on his extensive experience previously outlined.

Compensation Committee

The Compensation Committee is composed of directors Lawrence J. Centella (Chairman) and Paul A. Mieyal. Neither gentleman is our employee; however, Dr. Mieyal served as acting Chief Executive Officer from April 6, 2010 until April 20, 2012. The purpose of the Compensation Committee is (i) to assist the Board in discharging its responsibilities with respect to compensation of our executive officers and directors, (ii) to evaluate the performance of our executive officers, (iii) to assist the Board in developing succession plans for executive officers, and (iv) to administer our stock and incentive compensation plans and recommend changes in such plans to the Board as needed. The Compensation Committee establishes the compensation of senior executives on an annual basis. The Compensation Committee held two meetings in 2012.

The Compensation Committee reviews and approves, on an annual basis, the corporate goals and objectives with respect to the compensation of the company's executive officers. The Compensation Committee evaluates, at least once a year, our executive officers' performance in light of these established goals and objectives, and, based upon these evaluations, recommends to the full Board the annual compensation of such executive officers, including salary, bonus, incentive, and equity compensation. In reviewing and recommending the compensation of the executive officers, the Compensation Committee may consider the compensation awarded to officers of similarly situated companies, the company's performance, the individuals' performance, compensation given to the company's executive officers in past years or any other fact that the Compensation Committee deems appropriate. The Chief Executive Officer participates in the discussions and processes concerning the compensation of Mr. Kochanski, but not his own compensation. The Compensation Committee also reviews and recommends to the full Board appropriate director compensation programs for service as directors and committee members. The Compensation Committee has the authority to delegate any of its responsibilities to subcommittees as the Committee may deem appropriate.

Lawrence J. Centella and Paul Mieyal served as members of our Compensation Committee during all of 2012. Neither of these individuals was at any time during 2012 or at any other time an officer or employee of our company. Dr. Mieyal served as our acting Chief Executive Officer until April 20, 2012 but he received no employee compensation or employee benefits from the company. No interlocking relationship exists between any member of our Compensation Committee and any member of any other company's board of directors or compensation committee.

Board Leadership Structure and Oversight of Risk

The Board of Directors is responsible for providing oversight of the affairs of our company. Our Board leadership structure currently consists of different persons serving the roles of Chairman of the Board and Chief Executive Officer. The Chairman of the Board, among other responsibilities, works with the Chief

TABLE OF CONTENTS

Executive Officer and the Board to prepare Board meeting agendas and schedules, acts as liaison to other members of the Board, and, in conjunction with our Chief Executive Officer, presides at Board meetings.

We believe that the current Board leadership structure is an appropriate structure for the company and its stockholders at this time. This structure allows the Chief Executive Officer to focus his energy on strategy and management of the company and the Board to focus on oversight of strategic planning and risk management of the company.

As explained above, our Board of Directors has two committees – the Audit Committee and the Compensation Committee. Our Audit Committee is responsible for overseeing certain accounting related aspects of the company’s risk management processes while our full Board of Directors focuses on overall risk management. The Audit Committee and the full Board of Directors focus on what they believe to be the most significant risks facing the company and the company’s general risk management strategy, and also attempt to ensure, together with the Chief Executive Officer, that risks undertaken by the company are consistent with the Board’s appetite for risk. While the Board of Directors oversees the company’s risk management, company management is responsible for day-to-day risk management processes. We believe this division of responsibilities at the present time is an appropriate approach for addressing the risks facing our company and that our Board leadership structure supports this approach. We can offer no assurance that this structure, or any other structure, will be effective in all circumstances.

Stockholder Communication with the Board

Stockholders may communicate with the Board of Directors, members of particular committees or to individual directors, by sending a letter to such persons in care of our Chief Financial Officer at our principal executive offices.

The Chief Financial Officer has the authority to disregard any inappropriate communications or to take other appropriate actions with respect to any inappropriate communications. If deemed an appropriate communication, the Chief Financial Officer will submit the correspondence to the Chairman of the Board or to any committee or specific director to whom the correspondence is directed. Procedures for sending communications to the Board of Directors can be found on our website at www.nephros.com, by clicking on the Investor Relations link, then the Corporate Governance link. Please note that all such communications must be accompanied by a statement of the type and amount of our securities that the person holds; any special interest, meaning an interest that is not derived from the proponent’s capacity as a stockholder, of the person in the subject matter of the communication; and the address, telephone number and e-mail address, if any, of the person submitting the communication.

Code of Business Conduct and Code of Ethics

During the fiscal year ended December 31, 2004, we adopted a Code of Ethics and Business Conduct, which was amended and restated on April 2, 2007, for our employees, officers and directors that complies with SEC regulations.

The Code of Ethics is available free of charge on our website at www.nephros.com, by clicking on the Investor Relations link, then the Corporate Governance link. We intend to timely disclose any amendments to, or waivers from, our code of ethics and business conduct that are required to be publicly disclosed pursuant to rules of the SEC by filing such amendment or waiver with the SEC.

TABLE OF CONTENTS**Executive Officer**

The following table sets forth certain information concerning our non-director executive officer as of December 31, 2012:

| Name | Age (as of 2/26/13) | Position with Nephros and Business Experience for Last Five Years |
|---------------------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gerald J. Kochanski | 59 | <p>Gerald J. Kochanski has served as our Chief Financial Officer since April 2008 and served as our acting Chief Executive Officer from March 31 through April 5, 2010. Prior to joining us, Mr. Kochanski served as the Financial Services Director of Lordi Consulting LLC, a national consulting firm, from February 2007 through February 2008. From October 2004 until December 2006, Mr. Kochanski was the Chief Financial Officer of American Water Enterprises, Inc., a business unit of a privately owned company in the water and wastewater treatment industry. From November 1998 through September 2004, Mr. Kochanski was the Chief Financial Officer of Scanvec Amiable Ltd., a publicly traded provider of software to the signmaking, digital printing and engraving industries. Mr. Kochanski is a Certified Public Accountant and received his B.S. in Accounting and his M.B.A. in Finance from La Salle University, where he also serves as an adjunct School of Business faculty member.</p> |

From April 6, 2010 until April 20, 2012, Paul A. Mieyal, a member of the Board of Directors, served as the acting Chief Executive Officer. Upon the appointment of John C. Houghton, effective April 20, 2012, Paul A. Mieyal resigned as acting Chief Executive Officer, but remains as a member of the Board of Directors of the Company. Dr. Mieyal is a Vice President of Wexford Capital LP, the managing member of Lambda Investors LLC, which, as of December 31, 2012, beneficially owned approximately 31% of our outstanding Common Stock, representing approximately 53% on a fully-diluted basis.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act requires our officers and directors, and persons who own more than 10% of a registered class of our equity securities, to file reports of ownership on Form 3 and changes in ownership on Form 4 or Form 5 with the SEC. Officers, directors and 10% stockholders are also required by SEC rules to furnish us with copies of all such forms that they file. Based solely on a review of the copies of such forms received by us, or written representations from reporting persons, we believe that during fiscal year 2012, all of our officers, directors and 10% stockholders complied with applicable Section 16(a) filing requirements except as follows: Each of Messrs. Amron, Mieyal, Kochanski, Centella, Scibetta and Houghton did not timely file one Form 4 reporting a grant of stock options by the Board, and Mr. Houghton also did not timely file a Form 3 to report that he did not beneficially own any Company securities at the time of his appointment as President and Chief Executive Officer.

Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

There have been no changes in or disagreements with our accountants during 2012 or 2011.

TABLE OF CONTENTS**EXECUTIVE COMPENSATION**

The following table sets forth all compensation earned in the fiscal years ended December 31, 2012 and 2011 by our Named Executive Officers.

Summary Compensation Table

| Name and Principal Position | Year | Salary (\$) | Bonus ⁽¹⁾ (\$) | Option Awards ⁽²⁾ (\$) | All Other Compensation (\$) | Total |
|-----------------------------------------------------------------------------|------|----------------|------------------------------|-----------------------------------------|-----------------------------------|-------------|
| John C. Houghton ⁽⁵⁾ President and Chief Executive Officer | 2012 | 242,756 | | \$1,125,267 | \$ 20,674 | \$1,388,697 |
| Gerald J. Kochanski Chief Financial Officer | 2012 | \$202,027 | \$40,038 | \$14,761 | \$ 23,200 | \$280,026 |
| | 2011 | \$198,734 | \$38,872 | \$110,000 | \$ 22,587 | \$370,193 |
| Paul A. Mieyal Acting Chief Executive Officer ⁽⁴⁾ | 2012 | | | \$7,307 | \$ 14,800 | \$22,107 |
| | 2011 | | | \$13,982 | \$ 14,800 | \$28,782 |

(1) The amounts in this column reflect decisions approved by our Compensation Committee and are based on an analysis of the executive's contribution to our company during fiscal years 2012 and 2011.

(2) The amount reported is the aggregate grant date fair value of the options granted, computed in accordance with FASB ASC Topic 718. The assumptions used in determining the grant date fair values of these awards are set forth in Note 2 of these consolidated financial statements.

(3) See table below for details on All Other Compensation.

Dr. Mieyal served as our acting Chief Executive Officer from April 6, 2010 until April 20, 2012. Upon the appointment of John C. Houghton, effective April 20, 2012, Dr. Mieyal resigned as acting Chief Executive Officer, but will remain as a member of the Board of Directors. Dr. Mieyal received no compensation for his services, except in his capacity as a director of our company, which compensation is disclosed in the columns titled Option Awards, and All Other Compensation included in this table.

(5) Mr. Houghton was appointed President and Chief Executive Officer effective April 20, 2012.

All Other Compensation

| Name | Year | Matching 401K Plan Contribution | Health Insurance Paid by Company | Life Insurance Paid by the Company | Consulting Fees | Director Fees | Company Paid Transportation Expense | Total Other Compensation |
|---------------------|------|---------------------------------------|-------------------------------------------|------------------------------------------------|--------------------|--------------------------|----------------------------------------------|--------------------------------|
| John C. Houghton | 2012 | \$ 9,710 | \$ 9,564 | \$ 1,400 | | | | \$ 20,674 |
| Gerald J. Kochanski | 2012 | \$ 8,220 | \$ 9,536 | \$ 5,444 | | | | \$ 23,200 |
| | 2011 | \$ 9,504 | \$ 7,930 | \$ 5,153 | | | | \$ 22,587 |
| Paul A. Mieyal | 2012 | | | | | \$ 14,800 ⁽¹⁾ | | \$ 14,800 ⁽¹⁾ |
| | 2011 | | | | | \$ 14,800 ⁽¹⁾ | | \$ 14,800 ⁽¹⁾ |

- (1) At the request of Dr. Mieryl, the director fees were paid directly to Wexford Capital LP.

Option Holdings and Fiscal Year-End Option Values

The following table shows information concerning unexercised options outstanding as of December 31, 2012 for our named executive officers (after giving effect to the 1:20 reverse stock split effected on March 11, 2011).

71

TABLE OF CONTENTS**Outstanding Equity Awards at Fiscal Year-End 2012**

| Name | Grant Date ⁽¹⁾ | Option Awards ⁽²⁾ Number of | | Option Exercise Price (\$) | Option Expiration Date |
|-------------------------------|---------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------|------------------------------|
| | | Securities Underlying Unexercised Options (#) Exercisable ⁽²⁾ | Securities Underlying Unexercised Options (#) Unexercisable ⁽²⁾ | | |
| John C. Houghton | April 20, 2012 | 126,563 | 548,438 | \$ 0.95 | 4/20/22 |
| John C. Houghton | July 3, 2012 | 62,166 | 269,384 | \$ 1.89 | 7/3/22 |
| Gerald J. Kochanski | April 1, 2008 | 12,500 | -0- | \$ 15.00 | 4/1/18 |
| Gerald J. Kochanski | Jan 6, 2009 | 938 | 312 | \$ 2.60 | 1/6/19 |
| Gerald J. Kochanski | Dec 31, 2009 | 2,834 | 945 | \$ 15.40 | 12/31/19 |
| Gerald J. Kochanski | Mar 24, 2011 | 150,000 | 100,000 | \$ 0.51 | 3/24/21 |
| Gerald J. Kochanski | Feb 16, 2012 | -0- | 20,000 | \$ 0.83 | 2/16/22 |
| Paul A. Mieyal ⁽³⁾ | Nov 30, 2007 | 750 | -0- | \$ 16.00 | 11/30/17 |
| Paul A. Mieyal ⁽³⁾ | Jan 8, 2010 | 1,000 | -0- | \$ 19.00 | 1/8/20 |
| Paul A. Mieyal ⁽³⁾ | Mar 24, 2011 | 19,200 | 12,800 | \$ 0.51 | 3/24/14 |
| Paul A. Mieyal ⁽³⁾ | Feb 16, 2012 | 3,334 | 6,666 | \$ 0.83 | 2/16/22 |

(1) For better understanding of this table, we have included an additional column showing the grant date of stock options.

(2) Stock options became exercisable in accordance with the vesting schedule below:

| Grant Date | Vesting |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| John C. Houghton | <i>April 20, 2012 Grant:</i> 14,063 vest monthly until March 20, 2016. |
| John C. Houghton | <i>July 3, 2012 Grant:</i> 6,907 vest monthly until March 20, 2016. |
| Gerald J. Kochanski | <i>January 6, 2009 Grant:</i> 312 vest on January 6, 2013. |
| Gerald J. Kochanski | <i>December 31, 2009 Grant:</i> 944.5 vest on December 31, 2013. |
| Gerald J. Kochanski | <i>March 24, 2011 Grant:</i> 50,000 vest on each of March 24, 2013 and March 24, 2014. |
| Gerald J. Kochanski | <i>February 16, 2012 Grant:</i> 5,000 vest on each of February 16, 2013, February 16, 2014, February 16, 2015 and February 16, 2016. |
| Paul A. Mieyal | <i>March 24, 2011 Grant:</i> 6,400 vest on each of March 24, 2013 and March 24, 2013. |
| Paul A. Mieyal | <i>February 16, 2012 Grant:</i> 3,333 vest on each of February 16, 2013 and February 16, 2014. |

(3) At the request of Dr. Mieyal, the options were granted in the name of Wexford Capital LP.

Employment and Change in Control Agreements

We have used employment agreements as a means to attract and retain executive officers. These are more fully discussed below. We believe that these agreements provide our executive officers with the assurance that their employment is a long-term arrangement and provide us with the assurance that the officers' services will be available to us for the foreseeable future.

Agreement with Mr. John C. Houghton

On April 20, 2012, the Company entered into an Employment Agreement, effective as of April 20, 2012, with Mr. Houghton ("Employment Agreement"). The Employment Agreement has a term of four years, ending on April 20, 2016. The Employment Agreement provides that Mr. Houghton's annual base salary will be \$350,000. Mr. Houghton will be eligible to receive a target discretionary bonus of 30% of annual base salary, as determined by the Company. The targets with respect to the bonus for the year ending December 31, 2012 were mutually agreed upon between Mr. Houghton and the Compensation Committee of the Board within 60 days following April 20, 2012 and such bonus will be appropriately prorated for such annual period. The targets for each subsequent annual period will be mutually agreed upon at the beginning of each calendar year between Mr. Houghton and the Compensation Committee.

72

TABLE OF CONTENTS

Upon execution of the Employment Agreement, the Company granted Mr. Houghton options to purchase 675,000 shares of the Company's common stock pursuant to the Company's 2004 Stock Incentive Plan (the "Plan"). In addition, the Company was required to grant Mr. Houghton options to purchase an additional 331,550 shares of the Company's common stock.

The Employment Agreement further provided that, subject to Mr. Houghton meeting and maintaining the director eligibility requirements of the Board, Mr. Houghton would be nominated for election as a director at each stockholders meeting during his employment at which his term as a director would otherwise expire.

The Employment Agreement provides that upon the occurrence of a change in control (as defined in the Employment Agreement), all of Mr. Houghton's unvested stock options will vest and become exercisable immediately and, unless all such options are cashed-out in the change in control transaction, shall remain exercisable for a period of not less than 360 days (or the expiration of the stock option term, if sooner), regardless of whether Mr. Houghton's employment is terminated in connection with such change in control transaction.

In the event that Mr. Houghton's employment is terminated by the Company for cause (as defined in the Employment Agreement), then the Company will pay the earned but unpaid base salary for services rendered through the date of termination and any and all unvested stock options shall automatically be cancelled and forfeited by Mr. Houghton as of the date of termination.

In the event that Mr. Houghton's employment is terminated by reason of Mr. Houghton's death, or by reason of Mr. Houghton's resignation or retirement (as to which at least two (2) weeks notice is required), then the Company will pay to Mr. Houghton only the earned but unpaid base salary for services rendered through the date of termination. Any and all unvested stock options will automatically be cancelled and forfeited as of the date of Mr. Houghton's death, resignation or retirement.

If, as a result of Mr. Houghton's incapacity due to physical or mental illness, the Company determines that Mr. Houghton has failed to perform his duties on a full time basis for either ninety (90) days within any three hundred sixty-five (365) day period or sixty (60) consecutive days, the Company may terminate his employment hereunder for disability. In that event, the Company will pay the earned but unpaid base salary for services rendered through such date of termination. Any and all unvested stock options shall be cancelled as of the date of termination. During any period that Mr. Houghton fails to perform his duties as a result of incapacity due to physical or mental illness, he will continue to receive compensation and benefits provided by the Employment Agreement until his employment is terminated; provided, however, that the amount of compensation and benefits received during such period will be reduced by the aggregate amounts, if any, payable under disability benefit plans and programs of the Company or under the Social Security disability insurance program. Additionally, the vesting of stock options will be tolled during such period and in the event of a termination of the Employment Agreement as a result of disability, any and all unvested stock options will automatically be cancelled and forfeited as of the date of termination.

In the event that Mr. Houghton's employment is terminated by the Company prior to the expiration of the term of the Employment Agreement for any reason other than as described above or by Mr. Houghton for good reason (as defined in the Employment Agreement) any and all unvested stock options shall automatically be cancelled and forfeited by Mr. Houghton as of the date of such termination (except as provided in a change in control), vested stock options shall remain exercisable for ninety days after the date of such termination or the expiration of the stock option term, if sooner (except as otherwise provided in the event of a change in control), and the Company will pay to Mr. Houghton any earned but unpaid base salary for services rendered through the date of termination and continuing payments of severance pay (less applicable withholding taxes) at a rate equal to his base salary rate, as then in effect, for a period equal to three months (or, when Mr. Houghton has been employed for at least one (1) year, a period equal to six (6)

months), to be paid periodically in accordance with the Company's normal payroll policies; provided that if Mr. Houghton continues to be employed in any capacity by a successor entity following a change in control, the severance pay that would otherwise be payable shall be reduced by the amount of base compensation and guaranteed bonus (if any) Mr. Houghton receives in such capacity during or attributable to the severance term. Payment of any severance benefits are subject to the execution by Mr. Houghton of a

TABLE OF CONTENTS

general release and an agreement to continue to be bound by certain provisions of the Employment Agreement relating to, among others, non-competition, non-solicitation and confidentiality.

Mr. Houghton is also subject to non-competition, non-solicitation and confidentiality covenants during the term of his employment.

Agreement with Mr. Gerald J. Kochanski

Mr. Kochanski began serving as our Chief Financial Officer on April 28, 2008, pursuant to an employment agreement dated as of April 1, 2008. Mr. Kochanski's initial annual base salary is \$185,000. For the first year of Mr. Kochanski's employment, we paid him a non-accountable commuting allowance of \$10,000. In addition, we agreed to pay up to \$10,000 of Mr. Kochanski's moving costs. Mr. Kochanski may be awarded a bonus based on performance. In 2011, Mr. Kochanski was awarded a bonus of \$38,872. Pursuant to the employment agreement, we granted Mr. Kochanski an option to purchase 12,500 shares of our common stock under our 2004 Stock Incentive Plan. The option vested in three equal annual installments of 3,125 shares on each of March 31, 2009, March 31, 2010, and March 31, 2011. The option to purchase the remaining 3,125 shares vests on March 31, 2012 provided that he remains employed by us at such time, and provided further that such options shall become exercisable in full immediately upon the occurrence of a change in control (as defined in our 2004 Stock Incentive Plan).

Mr. Kochanski's agreement provides that upon termination by us for cause or disability (as such terms are defined in the agreement) or by Mr. Kochanski for any reason other than his exercise of the change of control termination option (as defined in the agreement), then we shall pay him only his accrued but unpaid base salary and bonuses for services rendered through the date of termination, his unvested options shall immediately be cancelled and forfeited and his vested options shall remain exercisable for 90 days after such termination. If Mr. Kochanski's employment is terminated by his death or by his voluntary resignation or retirement other than upon his exercise of the change of control termination option, then we shall pay him his accrued but unpaid base salary for services rendered through the date of termination and any bonuses due and payable through such date of termination and those that become due and payable within 90 days after such date. If we terminate Mr. Kochanski's employment for any other reason, then, provided he continues to abide by certain confidentiality and non-compete provisions of his agreement and executes a release, he shall be entitled to: (1) any accrued but unpaid base salary for services rendered through the date of termination; and (2) the continued payment of his base salary, in the amount as of the date of termination, for a period of six months subsequent to the termination date or until the end of the remaining term of the agreement if sooner.

Upon any sale of all or substantially all of our business or assets, whether direct or indirect, by purchase, merger, consolidation or otherwise, Mr. Kochanski shall have a period of time in which to discuss, negotiate and confer with any successor entity regarding the terms and conditions of his continued employment. If Mr. Kochanski, acting reasonably, is unable to timely reach an agreement through good faith negotiations with such successor, then he may elect to terminate his employment with us and receive any accrued but unpaid salary for services rendered through the date of termination and the continued payment of his salary, in the amount as of the date of termination, for a period of six months. All unvested options that would have vested during the shorter of (a) the subsequent six months or (b) the remainder of the term would also immediately become vested.

The agreement defines "cause" as (1) conviction of any crime (whether or not involving us) constituting a felony in the jurisdiction involved; (2) engaging in any act which, in each case, subjects, or if generally known would subject, us to public ridicule or embarrassment; (3) gross neglect or misconduct in the performance of the employee's duties under the agreement; or (4) material breach of any provision of the agreement by the employee; provided, however, that with respect to clauses (3) or (4), the employee must have received written notice from us setting forth the alleged act or

failure to act constituting cause , and the employee shall not have cured such act or refusal to act within 10 business days of his actual receipt of notice.

The agreement defines disability as our determination that, because of the employee s incapacity due to physical or mental illness, the employee has failed to perform his duties under the agreement on a full time basis for either (1) 120 days within any 365-day period, or (2) 90 consecutive days.

74

TABLE OF CONTENTS

On March 28, 2011, we entered into an employment agreement, to be effective on April 1, 2011, with Mr. Kochanski.

The new employment agreement replaces the current agreement and is substantially similar to the prior agreement with the following material changes: Mr. Kochanski's base annual salary was increased to \$200,192, an increase of \$15,192; and in the event that Mr. Kochanski's employment is either terminated by us for other than cause (as defined in the agreement), then (i) all of his unvested stock options that would have vested during the shorter of (a) the subsequent six months or (b) the remainder of the term, shall immediately become vested.

Change in Control Payments

If the change in control payments called for in the agreements for Messrs. Houghton and Kochanski had been triggered on December 31, 2012, we would have been obligated to make the following payments:

| Name | Cash Payment Per Month (# of months paid) | Number of Options that Would Vest (Market Value) ⁽¹⁾ |
|------------------|-------------------------------------------------|-----------------------------------------------------------------------|
| John C. Houghton | \$ 29,167 (3 mos.) | \$ 131,625 (-0-) |
| Gerald Kochanski | \$ 16,833 (6 mos.) | \$ 75,200 (-0-) |

The market value equals the difference between \$1.19, the fair market value of the shares that could be acquired (1) based on the closing sale price per share of our common stock on the Over-the-Counter Bulletin Board on December 31, 2012 and the exercise prices for the underlying stock options.

2004 Stock Incentive Plan

The 2004 Stock Incentive Plan provides that if there is a change in control, unless the agreement granting an award provides otherwise, all awards under the 2004 Stock Incentive Plan will become vested and exercisable as of the effective date of the change in control. As defined in the 2004 Stock Incentive Plan, a change in control means the occurrence of any of the following events: (i) any person, including a group, as such terms are defined in sections 13(d) and 14(d) of the Exchange Act and the rules promulgated thereunder, becomes the beneficial owner, directly or indirectly, whether by purchase or acquisition or agreement to act in concert or otherwise, of more than 50% of the outstanding shares of our common stock; (ii) our complete liquidation; (iii) the sale of all or substantially all of our assets; or (iv) a majority of the members of our Board of Directors are elected to the Board without having previously been nominated and approved by a majority of the members of the Board incumbent on the day immediately preceding such election.

Non-Qualified Stock Option Agreement with John C. Houghton

On July 3, 2012, the Company granted Mr. Houghton an option to purchase 331,550 shares of common stock of the Company (the Option), under a Non-qualified Stock Option Agreement, dated July 3, 2012, between Mr. Houghton and the Company, in connection with his appointment as the President and Chief Executive Officer. The terms of this non-qualified stock option agreement are substantially similar to the terms of the 2004 Stock Incentive Plan. The options granted to Mr. Houghton pursuant to this agreement vest in equal monthly installments over four years commencing on April 20, 2012, the date Mr. Houghton was appointed; provided that Mr. Houghton remains employed by the Company at such time.

401(k) Plan

The company has established a 401(k) deferred contribution retirement plan (the 401(k) Plan) which covers all employees. The 401(k) Plan provides for voluntary employee contributions of up to 15% of annual earnings, as defined. As of January 1, 2004, the company began matching 100% of the first 3% and 50% of the next 2% of employee earnings to the 401(k) Plan. The company contributed and expensed \$49,000 and \$28,000 in 2012 and 2011, respectively.

Director Compensation

In fiscal year 2012, our directors received a \$10,000 annual retainer, \$1,200 per meeting for each quarterly Board meeting attended and reimbursement for expenses incurred in connection with serving on our

TABLE OF CONTENTS

Board of Directors. The Chairman of the Board receives an annual retainer of \$20,000 and \$1,500 per meeting for each quarterly Board meeting attended. The chairperson of our Audit Committee is paid a \$5,000 annual retainer and \$500 per meeting for meetings of the Audit Committee, with a maximum of eight meetings per year.

We grant each non-employee director who first joins our Board, immediately upon such director's joining our Board, options to purchase 1,000 shares of our common stock in respect of such first year of service at an exercise price per share equal to the fair market value price per share of our common stock on the date of grant. We also grant annually to each non-employee director options to purchase 500 shares of our common stock (625 shares to the Chairman of the Board, effective in 2009) at an exercise price per share equal to the fair market value price per share of our common stock on the grant date, although inadvertently we did not grant these options in 2008 and 2009, and subsequently granted them in January 2010 with an exercise price of \$19.00 per share. These non-employee director options vest in three equal installments on each of the date of grant and the first and second anniversaries thereof.

As a result of the shareholders' rights offering that was completed on March 10, 2011 and the 1:20 reverse stock-split that was effected as of March 11, 2011, the company's closing market price per share was \$.60 on March 11, 2011. All of the outstanding options at March 11, 2011 had an exercise price in excess of \$.60. On March 24, 2011, the company granted its non-employee directors options to purchase 184,000 common shares in the aggregate at an exercise price per share equal to the fair market value price per share on that date, which was \$0.51 per share. These non-employee director options vested forty percent (40%) on the date of grant and twenty percent (20%) vest equally on the following three anniversaries thereof.

Our executive officers do not receive additional compensation for service as directors if any of them so serve.

The following table shows the compensation earned by each of our non-employee directors for the year ended December 31, 2012, other than Dr. Mieyal, whose compensation information is presented in the Summary Compensation table above.

Non-Employee Director Compensation in Fiscal Year 2012

| Name | Fees Earned or Paid in Cash | Option Awards ⁽¹⁾ (\$) | | Total (\$) |
|--------------------------------|-----------------------------|-----------------------------------|-----|------------|
| Arthur H. Amron ⁽⁵⁾ | \$ 14,800 | \$ 7,307 | (2) | \$ 28,880 |
| Lawrence J. Centella | \$ 14,800 | \$ 7,307 | (3) | \$ 41,200 |
| James S. Scibetta | \$ 33,000 | \$ 9,133 | (4) | \$ 59,400 |

The amount reported is the aggregate grant date fair value of the options granted, computed in accordance with (1) FASB ASC Topic 718. The assumptions used in determining the grant date fair values of these awards are set forth in Note 2 of these consolidated financial statements.

- (2) Options granted for services rendered by Mr. Amron totaled 43,750 options at December 31, 2012.
- (3) Options granted for services rendered by Mr. Centella totaled 72,750 options at December 31, 2012.
- (4) Options granted for services rendered by Mr. Scibetta totaled 75,625 options at December 31, 2012.
- (5) At the request of Mr. Amron, his options and director fees were directed to Wexford Capital LP.

TABLE OF CONTENTS

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

On March 10, 2011 the company completed its rights offering and a private placement that together resulted in gross proceeds of approximately \$3.2 million. The aggregate net proceeds were approximately \$2.3 million, after deducting the estimated aggregate expenses of these transactions which approximated \$200,000, the repayment of the \$500,000 note, plus \$26,650 of accrued interest thereon, issued to Lambda Investors, the payment of an 8% sourcing/transaction fee \$40,000 in respect of the note and an aggregate of \$100,000 for reimbursement of Lambda Investors' legal fees incurred in connection with the loan and the rights offering.

Simultaneously with the closing of the rights offering, Lambda Investors purchased in a private placement 3,009,711 units at the same per unit purchase price of \$0.40, pursuant to a purchase agreement between the company and Lambda Investors. The company issued to Lambda Investors an aggregate of 3,009,711 shares of common stock and warrants to purchase an aggregate of 2,782,577 shares of common stock. Of the \$3.2 million in gross proceeds from the rights offering and the private placement, the company received approximately \$1.2 million in gross proceeds from the sale of units to Lambda Investors. Net proceeds, after deducting the aggregate of \$666,650 in payments due Lambda Investors discussed above, were approximately \$537,000.

Following the closing of the rights offering, and after giving effect to anti-dilution provisions in existing warrants to purchase shares of our common stock that the rights offering triggered, Lambda Investors surrendered for cancellation warrants to purchase a number of shares equal to the total number of shares underlying warrants issued as part of the units sold in the rights offering and under the purchase agreement with Lambda Investors. The term of the remaining Lambda Investors warrants was extended so that the warrants expire at the same time as the warrants issued in the rights offering, which have a five-year term.

On February 4, 2013, we issued a senior secured note to Lambda Investors LLC in the principal amount of \$1.3 million. We expect that the proceeds from the note will allow us to fund our operations through May 2013. The note bears interest at the rate of 12% per annum and matures on August 4, 2013, at which time all principal and accrued interest will be due. However, we have agreed to prepay amounts due under the note with the cash proceeds from (a) a rights offering and an offering of a discounted exercise price to public warrant holders, each as further described in the note, (b) any other equity or debt financing, or (c) the issuance or incurrence of any other indebtedness or the sale of any assets outside the ordinary course of business, in each case prior to the maturity date. If we do not pay principal and interest under the note when due, the interest rate increases to 16% per annum. We may prepay the note without penalty at any time. The note is secured by a first priority lien on all of our property, including our intellectual property. As long as indebtedness remains outstanding under the note, we will be subject to certain covenants which, among other things, restrict our ability to merge with another company, sell a material amount of our assets, incur any additional indebtedness, repay any existing indebtedness, or declare or pay any dividends in cash, property or securities. In connection with the note, we have agreed to pay Lambda Investors an 8%, or \$104,000, sourcing/transaction fee. In addition, we will pay Lambda Investors' legal fees and other expenses incurred in connection with the note in the amount of \$50,000 as well as Lambda Investors' legal fees and other expenses incurred in connection with the rights offering in the amount of \$50,000. Those payments will be paid upon the completion of the rights offering or, if earlier, upon the maturity of the note. As additional consideration, we agreed to extend by one year the expiration date of all of Lambda's outstanding warrants to March 2017. In addition, we have undertaken to conduct the rights offering described in this prospectus. During the period when the rights offering is open, we expect to offer to our public warrant holders holding the warrants issued at the close of the March 2011 rights offering a one-time right, at their option, to exercise such warrants for an exercise price of \$0.30 per share discounted from \$0.40

per share.

As of December 31, 2012, Lambda Investors is our largest stockholder and beneficially owns approximately 31% of our outstanding common stock and, on a fully-diluted basis, owns approximately 53% of our outstanding common stock. The warrants held by Lambda Investors have an exercise price of \$0.40 per share and certain warrants have full ratchet anti-dilution protection. In connection with the proposed rights offering, we agreed to amend the terms of the existing warrants held by Lambda Investors to March 10, 2017, and Lambda Investors agreed to waive its anti-dilution rights applicable to any of its existing warrants solely with respect to the one-time incentive discount offered to public warrant holders.

77

TABLE OF CONTENTS

The shares beneficially owned by Lambda Investors may be deemed beneficially owned by Wexford Capital LP, which is the managing member of Lambda Investors. Arthur H. Amron, a director of Nephros, is a partner and general counsel of Wexford Capital. Paul Mioyal, a director of Nephros, is a vice president of Wexford Capital. During 2012, at the request of Messrs. Amron and Mioyal, fees and options in the aggregate amount of approximately \$57,760 earned in respect of services they rendered to the company were directed to Wexford Capital LP.

All share amounts and related prices have been adjusted to give effect to the 1:20 reverse stock split effected on March 11, 2011.

In connection with the February 2013 loan from Lambda Investors, we entered into a registration rights agreement with Lambda Investors pursuant to which we will file a registration statement on Form S-1 covering the resale by Lambda Investors of the common stock underlying shares sold to Lambda Investors. Under this registration rights agreement, we will pay all of the expenses, including reasonable legal fees, of Lambda Investors in connection with such registration statement and resale of shares by Lambda Investors under such registration statement, which may be in an underwritten public offering. We will be obligated to use our reasonable best efforts to keep such registration statement continuously effective until such time as all the securities registered on such registration statement have been sold or are eligible for sale without restriction under the applicable securities laws.

TABLE OF CONTENTS

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Securities Authorized for Issuance under Equity Compensation Plans

The following table provides information as of December 31, 2012 (adjusted to give effect to the reverse stock split effected on March 11, 2011) about compensation plans under which shares of our common stock may be issued to employees, consultants or members of our Board of Directors upon exercise of options or warrants under all of our existing equity compensation plans. Our existing equity compensation plans consist of our Amended and Restated Nephros 2000 Equity Incentive Plan and our Nephros, Inc. 2004 Stock Incentive Plan (together, our Stock Option Plans) in which all of our employees and directors are eligible to participate. Our Stock Option Plans were approved by our stockholders.

| Plan category | (a) Number of securities to be issued upon exercise of outstanding options, warrant and rights | (b) Weighted-average exercise price of outstanding options, warrant and rights | (c) Number of securities remaining available for issuance under equity compensation plans (excluding securities reflected in column (a)) |
|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Equity compensation plans approved by our stockholders: | | | |
| Stock Option Plans | 1,643,164 | \$ 0.67 | 339,904 |
| Equity compensation plans not approved by our stockholders ⁽¹⁾ : | 331,550 | \$ 0.87 | |
| None | | | |
| All Plans | 1,974,714 | | 339,904 |

On July 3, 2012, the Company granted Mr. Houghton an option to purchase 331,550 shares of common stock of the Company, under the Non-qualified Stock Option Agreement, dated July 3, 2012, between Mr. Houghton and (1) the Company, in connection with his appointment as the President and Chief Executive Officer. These options vests in equal monthly installments over four years commencing on April 20, 2012, the date Mr. Houghton was appointed; provided that Mr. Houghton remains employed by the Company at such time.

TABLE OF CONTENTS**Security Ownership of Certain Beneficial Owners**

The following table sets forth the beneficial ownership of our common stock as of February 20, 2013, by (i) each person known to us to own beneficially more than five percent (5%) of our common stock, based on such persons' or entities' filings with the SEC as of that date; (ii) each director, director nominee and executive officer; and (iii) all directors, director nominees and executive officers as a group:

| Name and Address of Beneficial Owner | Amount and Nature of Beneficial Ownership | Percentage of Class ⁽¹⁾ |
|--------------------------------------------------------------------|-------------------------------------------|------------------------------------|
| Lambda Investors LLC ⁽²⁾ | 15,317,943 | 53.0 % |
| Southpaw Asset Management LP ⁽³⁾ | 1,003,496 | 3.5 % |
| Arthur H. Amron ⁽⁴⁾ | 34,017 | * |
| Lawrence J. Centella ⁽⁵⁾ | 72,684 | * |
| John C. Houghton ⁽⁶⁾ | 272,607 | * |
| Gerald J. Kochanski ⁽⁷⁾ | 221,584 | * |
| Paul A. Mieyal ⁽⁸⁾ | 34,017 | * |
| James S. Scibetta ⁽⁹⁾ | 59,459 | * |
| All executive officers and directors as a group ^{(4) (9)} | 694,368 | 2.4 |

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

Applicable percentage ownership is based on 12,025,116 shares of common stock outstanding as of February 20, 2013, after giving effect to the 1:20 reverse stock split effected March 11, 2011, together with applicable options and warrants for each stockholder. Beneficial ownership is determined in accordance with the rules of the SEC,

(1) based on factors including voting and investment power with respect to shares. Common stock subject to options and warrants exercisable on or within 60 days after February 20, 2013 are deemed outstanding for the purpose of computing the percentage ownership of the person holding those options or warrants, but not for computing the percentage ownership of any other person.

Based in part on information provided in Schedule 13D/A filed on February 13, 2013. The shares beneficially owned by Lambda Investors may be deemed beneficially owned by Wexford Capital LP, which is the managing member of Lambda Investors, Wexford GP LLC, which is the General Partner of Wexford Capital LP, by Charles E. Davidson in his capacity as Chairman and managing member of Wexford Capital LP and by Joseph M. Jacobs in his capacity as President and managing member of Wexford Capital LP. The address of each of Lambda Investors LLC, Wexford Capital LP, Mr. Davidson and Mr. Jacobs is c/o Wexford Capital LP, 411 West Putnam

(2) Avenue, Greenwich, CT 06830. Each of Wexford Capital LP, Wexford GP LLC, Mr. Davidson and Mr. Jacobs disclaims beneficial ownership of the shares of Common Stock owned by Lambda Investors except, in the case of Mr. Davidson and Mr. Jacobs, to the extent of their respective interests in each member of Lambda Investors.

Includes 11,589,151 shares issuable upon exercise of warrants held by Lambda Investors having an exercise price of \$0.40 per share. Lambda Investors is controlled by Wexford Capital LP. Arthur H. Amron, one of our directors, is a Partner and General Counsel of Wexford Capital LP. Paul A. Mieyal, our acting Chief Executive Officer and one of our directors, is a Vice President of Wexford Capital LP.

(3) Based in part on information provided in Schedule 13D/A filed on January 9, 2013. The shares beneficially owned by Southpaw Asset Management LP may be deemed beneficially owned by Southpaw Holdings LLC, which is the General Partner of Southpaw Asset Management LP, and by each of Kevin Wyman and Howard Golden, who are principals of Southpaw Holdings LLC, and Southpaw Credit Opportunity Master Fund LP, of which Southpaw

Asset Management LP is the investment manager. The address of each of Southpaw Asset Management LP, Southpaw Holdings LLC, Kevin Wyman, Howard Golden, and Southpaw Credit Opportunity Master Fund LP, is 2 Greenwich Office Park, Greenwich, CT 06831. Each of Southpaw Asset Management LP, Southpaw Holdings LLC, Kevin Wyman and Howard Golden disclaims beneficial ownership of 483,254 shares of common stock and 520,242 shares issuable upon the exercise of warrants beneficially owned by Southpaw Credit Opportunity Master Fund LP having an exercise price of \$0.40.

(4) Mr. Amron's address is c/o Wexford Capital LP, 411 West Putnam Avenue, Greenwich, CT 06830. The shares identified as being beneficially owned by Mr. Amron consist of 34,017 shares issuable upon

80

TABLE OF CONTENTS

exercise of options granted under the 2004 Stock Incentive Plan. Does not include 9,733 shares issuable upon the exercise of options which have been granted under our Stock Option Plans but will not vest within 60 days of February 20, 2013.

(5) Mr. Centella's address is the company address: 41 Grand Avenue, River Edge, New Jersey 07661. The shares identified as being beneficially owned by Mr. Centella include 57,417 shares issuable upon exercise of options granted under the 2004 Stock Incentive Plan. Does not include 15,333 shares issuable upon the exercise of options which have been granted under our Stock Option Plans but will not vest within 60 days of February 20, 2013.

(6) Mr. Houghton's address is the company address: 41 Grand Avenue, River Edge, New Jersey 07661. The shares identified as being beneficially owned by Mr. Houghton consist of 272,607 shares issuable upon exercise of options granted under the 2004 Stock Incentive Plan. Does not include 733,943 shares issuable upon the exercise of options which have been granted under our Stock Option Plans but will not vest within 60 days of February 20, 2013.

(7) Mr. Kochanski's address is the company address: 41 Grand Avenue, River Edge, New Jersey 07661. The shares identified as being beneficially owned by Mr. Kochanski consist of 221,584 shares issuable upon exercise of options granted under the 2004 Stock Incentive Plan. Does not include 65,945 shares issuable upon the exercise of options which have been granted under our Stock Option Plans but will not vest within 60 days of February 20, 2013.

(8) Dr. Mieyal's address is c/o Wexford Capital LP, 411 West Putnam Avenue, Greenwich, CT 06830. The shares identified as being beneficially owned by Dr. Mieyal consist of 34,017 shares issuable upon exercise of options granted under the 2004 Stock Incentive Plan. Does not include 9,733 shares issuable upon the exercise of options which have been granted under our Stock Option Plans but will not vest within 60 days of February 20, 2013.

(9) Mr. Scibetta's address is the company address: 41 Grand Avenue, River Edge, New Jersey 07661. The shares identified as being beneficially owned by Mr. Scibetta consist of 59,459 shares issuable upon exercise of options granted under the 2004 Stock Incentive Plan. Does not include 16,167 shares issuable upon the exercise of options which have been granted under our Stock Option Plans but will not vest within 60 days of February 20, 2013.

DESCRIPTION OF COMMON STOCK

Our authorized capital stock consists of 90,000,000 shares of common stock, par value \$0.001 per share, and 5,000,000 shares of preferred stock, par value \$0.001 per share. As of April 4, 2013, there were 12,025,309 shares of common stock outstanding and no shares of preferred stock outstanding. All amounts are reported on a post reverse stock split basis.

To effect the 2011 rights offering we needed to increase the number of authorized shares of our common stock. Accordingly, we sought and received the approval of our stockholders at our annual meeting of stockholders held on January 10, 2011, to amend our certificate of incorporation to increase the authorized shares of our capital stock from 95,000,000 to 905,000,000 shares and the authorized shares of our common stock from 90,000,000 to 900,000,000 shares. We filed a certificate of amendment to our certificate of incorporation providing for such share increase immediately prior to the closing of the rights offering. Immediately after completion of the rights offering, we effected a 1-for-20 reverse stock split of our outstanding shares of common stock and decreased the authorized shares of our capital stock from 905,000,000 to 95,000,000 shares and the authorized shares of our common stock from 900,000,000 to 90,000,000 shares. We received stockholder approval of such amendment at our annual meeting of stockholders held on January 10, 2011.

Holders of our common stock are entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders and do not have cumulative voting rights. Accordingly, holders of a majority of the shares of our common stock entitled to vote in any election of directors may elect all of the directors standing for election. Apart from preferences that may be applicable to any holders of preferred stock outstanding at the time, holders of our

common stock are entitled to receive dividends, if any, ratably as may be declared from time to time by the Board out of funds legally available therefor. Upon our liquidation, dissolution or winding up, the holders of our common stock are entitled to receive ratably our net assets available after the payment of all liabilities and liquidation preferences on any outstanding preferred stock. Holders of our common stock have no preemptive, subscription, redemption or conversion rights, and there

TABLE OF CONTENTS

are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock which we may designate and issue in the future.

CERTAIN MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS

The following is a general summary of certain material U.S. federal income tax consequences of the rights offering to U.S. holders (as defined below). This summary is based upon provisions of the Internal Revenue Code of 1986, as amended (or the Code), applicable Treasury Regulations, administrative rulings, judicial authorities and other applicable existing U.S. federal income tax authorities, all of which are subject to change or differing interpretations, possibly with retroactive effect which could result in U.S. federal income tax consequences different from those discussed below. No assurance can be given that the Internal Revenue Service, or the IRS, will not challenge one or more of the tax results described in this discussion, and no ruling from the IRS has been, or is expected to be, sought with respect to the U.S. federal tax consequences of the rights offering.

This summary does not provide a complete analysis of all potential tax considerations. This summary is only applicable to U.S. holders of common stock and/or warrants who acquire the subscription rights pursuant to the terms of the rights offering, have held the common stock and/or warrants, and will hold the subscription rights, as capital assets (generally, property held for investment) within the meaning of Section 1221 of the Code. This summary does not deal with all tax consequences that may be relevant to holders in light of their personal circumstances or particular situations, such as holders who may be subject to special tax treatment under the Code, including (without limitation) dealers in securities or currencies, financial institutions, insurance companies, regulated investment companies, real estate investment trusts, tax-exempt entities or traders in securities that elect to use a mark-to-market method of accounting for their securities, persons holding subscription rights, common stock, and/or warrants as part of a hedging, integrated or conversion transaction or a straddle, persons deemed to sell common stock and/or warrants, under the constructive sale provisions of the Code, persons whose functional currency is not the U.S. dollar, and foreign taxpayers. This summary does not deal with any U.S. federal non-income, state, local or foreign tax consequences, estate or gift tax consequences, or alternative minimum tax consequences, nor does it address any tax considerations to persons other than U.S. holders.

For purposes of this discussion, a U.S. holder is a beneficial owner of our common stock or warrants that is, for U.S. federal income tax purposes:

an individual who is a citizen or resident of the United States;
a corporation, or other business entity treated as a corporation for U.S. federal income tax purposes, created or organized in or under the laws of the United States, any state of the United States or the District of Columbia;
an estate, if its income is subject to U.S. federal income taxation regardless of its source; or
a trust, if (i) a U.S. court can exercise primary supervision over the trust's administration and one or more U.S. persons (within the meaning of the Code) have the authority to control all of its substantial decisions or (ii) the trust has a valid election in effect under applicable Treasury Regulations to be treated as a U.S. person.

If a partnership (including any entity treated as a partnership for U.S. federal income tax purposes) receives the subscription rights or exercises the subscription rights or the over-subscription rights, the tax treatment of a partner in a partnership generally will depend upon the status of the partner and the activities of the partnership. Such a partner or partnership should consult its tax advisor as to the U.S. federal income tax consequences of the receipt, exercise or lapse of the subscription rights.

Holders of common stock and warrants are urged to consult their own tax advisors as to the specific tax consequences of the rights offering to them, including the applicable federal, state, local and foreign tax consequences of the rights offering to them and the effect of possible changes in tax laws.

TABLE OF CONTENTS

Taxation of Subscription Rights

Receipt of Subscription Rights

Your receipt of the subscription rights pursuant to the rights offering should be treated as a nontaxable distribution with respect to your existing common stock and/or warrants for U.S. federal income tax purposes, and the following summary assumes you will qualify for such nontaxable treatment. If, however, the rights offering does not qualify as nontaxable, you would be treated as receiving a taxable distribution equal to the fair market value of the subscription rights on their distribution date. The distribution would be taxed as a dividend to the extent that it qualifies as a dividend and is made out of our current or accumulated earnings and profits; any excess would be treated first as a return of your basis (investment) in your common stock and/or warrants and then as a capital gain. If the rights offering does not qualify as nontaxable, expiration of the subscription rights would result in a capital loss.

If the fair market value of the subscription rights you receive is less than 15% of the fair market value of your existing common stock and/or warrants on the date you receive the subscription rights, the subscription rights will be allocated a zero basis for U.S. federal income tax purposes, unless you elect to allocate basis between your existing common stock and/or warrants and the subscription rights in proportion to the relative fair market values of the existing common stock and/or warrants and the subscription rights determined on the date of receipt of the subscription rights. If you choose to allocate basis between your existing common stock and/or warrants and the subscription rights, you must make this election on a statement included with your tax return for the taxable year in which you receive the subscription rights. Such an election is irrevocable. The fair market value of the subscription rights on the date the subscription rights are distributed is uncertain, and we have not obtained, and do not intend to obtain, an appraisal of the fair market value of the subscription rights on that date. In determining the fair market value of the subscription rights, you should consider all relevant facts and circumstances, including any difference between the subscription price of the subscription rights and the trading price of our common stock on the date that the subscription rights are distributed, the length of the period during which the subscription rights may be exercised and the fact that the subscription rights are non-transferable.

On the other hand, if the fair market value of the subscription rights you receive is 15% or more of the fair market value of your existing common stock and/or warrants on the date you receive the subscription rights, then you must allocate your basis in your existing common stock and/or warrants between the existing common stock and/or warrants and the subscription rights you receive in proportion to their fair market values determined on the date you receive the subscription rights.

Your holding period in a subscription right will include your holding period in the common stock and/or warrants with respect to which the subscription right was distributed.

Exercise of Basic Subscription Privilege or Over-Subscription Privilege

Generally, you will not recognize gain or loss on the exercise of a subscription right pursuant to the basic subscription privilege or subscription for shares pursuant to the over-subscription privilege. Your tax basis in new shares of common stock acquired when you exercise a subscription right pursuant to the basic subscription privilege or subscribe for shares pursuant to the over-subscription privilege will be equal to your adjusted tax basis in the subscription right plus the subscription price. The holding period of a share of common stock acquired when you exercise a subscription right pursuant to the basic subscription privilege or subscribe for shares pursuant to the over-subscription privilege will begin on the date of exercise.

If you exercise a subscription right received in the rights offering after disposing of the share of our common stock or the warrant with respect to which such subscription right is received, then certain aspects of the tax treatment of the exercise of the subscription right are unclear, including (1) the allocation of tax basis between the common stock or warrant previously sold and the subscription right, (2) the impact of such allocation on the amount and timing of gain or loss recognized with respect to the common stock or warrant previously sold, and (3) the impact of such allocation on the tax basis of common stock acquired through exercise of the subscription right. If you exercise a subscription right received in the rights offering after disposing of the common stock or warrant with respect to which the subscription right is received, you should consult your tax advisor.

TABLE OF CONTENTS

Non-Exercising Subscription Rights

If the receipt of the subscription rights pursuant to the rights offering was treated as a nontaxable distribution for U.S. federal income tax purposes and you do not exercise your subscription rights, you should not recognize a capital loss for U.S. federal income tax purposes and any portion of the tax basis in your existing shares of common stock and/or warrants previously allocated to the subscription right not exercised should be re-allocated to the existing common stock and/or warrants.

LEGAL MATTERS

The legality of the securities offered hereby will be passed upon for us by Day Pitney LLP, Parsippany, New Jersey.

EXPERTS

Our financial statements at and for the years ended December 31, 2012 and 2011 included in this prospectus have been audited by Rothstein Kass, an independent registered public accounting firm, as stated in their report, which report includes an explanatory paragraph related to the Company's ability to continue as a going concern. Such financial statements have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's public reference room located at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. Our SEC filings are also available to the public free of charge at the SEC's website at www.sec.gov and on our website at www.nephros.com.

DISCLOSURE OF SEC POSITION ON INDEMNIFICATION FOR SECURITIES LAW VIOLATIONS

Our Fourth Amended and Restated Certificate of Incorporation, as amended, provides for indemnification of directors and officers of the Registrant to the fullest extent permitted by the Delaware General Corporation Law, or DGCL. We have obtained liability insurance for each director and officer for certain losses arising from claims or charges made against them while acting in their capacities as directors or officers of the registrant. Our Second Amended and Restated By-Laws provide for indemnification of our officers, directors and others who become a party to an action on our behalf by us to the fullest extent not prohibited under the DGCL. However, insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers, and controlling persons pursuant to the foregoing provisions or otherwise, we have been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment of expenses incurred or paid by a director, officer or controlling person in a successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, we will, unless in the opinion of our counsel the

matter has been settled by controlling precedent, submit to the court of appropriate jurisdiction the question whether such indemnification by us is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

TABLE OF CONTENTS

FINANCIAL STATEMENTS

| | Page |
|---------------------------------------------------------------------------------------------------------|------------|
| Annual Financial Statements | |
| <u>Report of Independent Registered Public Accounting Firm</u> | <u>F-2</u> |
| <u>Consolidated Balance Sheets December 31, 2012 and 2011</u> | <u>F-3</u> |
| <u>Consolidated Statements of Operations Years ended December 31, 2012 and 2011</u> | <u>F-4</u> |
| <u>Consolidated Statements of Changes in Stockholders Equity Years ended December 31, 2012 and 2011</u> | <u>F-5</u> |
| <u>Consolidated Statements of Cash Flows Years ended December 31, 2012 and 2011</u> | <u>F-6</u> |
| <u>Notes to Consolidated Financial Statements</u> | <u>F-7</u> |

F-1

TABLE OF CONTENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
Nephros, Inc.

We have audited the accompanying consolidated balance sheets of Nephros, Inc. and Subsidiary (collectively, the Company) as of December 31, 2012 and 2011, and the related consolidated statements of operations, changes in stockholders' equity (deficit) and cash flows in the two year period ended December 31, 2012. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Nephros, Inc. and Subsidiary as of December 31, 2012 and 2011, and the results of their operations and their cash flows in the two year period ended December 31, 2012, in conformity with accounting principles generally accepted in the United States of America.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 2 to the consolidated financial statements, the Company has incurred negative cash flow from operations and net losses since inception. These conditions, among others, raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 2. The accompanying consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ Rothstein Kass
Roseland, New Jersey
March 4, 2013

TABLE OF CONTENTS

NEPHROS, INC. AND SUBSIDIARY

CONSOLIDATED BALANCE SHEETS

(In Thousands, Except Share Amounts)

| | December 31, 2012 | December 31, 2011 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------|
| ASSETS | | |
| Current assets: | | |
| Cash and cash equivalents | \$47 | \$1,669 |
| Accounts receivable | 935 | 1,170 |
| Inventory, less allowances of \$269 at December 31, 2012 and \$218 at December 31, 2011 | 312 | 247 |
| Prepaid expenses and other current assets | 109 | 113 |
| Total current assets | 1,403 | 3,199 |
| Property and equipment, net | 16 | 17 |
| Long-term receivable | | 778 |
| Other assets, net of accumulated amortization | 2,109 | |
| Total assets | \$3,528 | \$3,994 |
| LIABILITIES AND STOCKHOLDERS' EQUITY | | |
| Current liabilities: | | |
| Accounts payable | \$1,070 | \$284 |
| License and supply agreement fee payable | 1,318 | |
| Accrued expenses | 321 | 195 |
| Deferred revenue, current portion | 707 | 698 |
| Total current liabilities | 3,416 | 1,177 |
| Long-term portion of deferred revenue | 707 | 1,396 |
| Total liabilities | 4,123 | 2,573 |
| Commitments and Contingencies (Note 10) | | |
| Stockholders' equity (deficit): | | |
| Preferred stock, \$.001 par value; 5,000,000 shares authorized at December 31, 2012 and 2011; no shares issued and outstanding at December 31, 2012 and 2011. | | |
| Common stock, \$.001 par value; 90,000,000 shares authorized at December 31, 2012 and 2011; 11,949,824 and 10,501,477 shares issued and outstanding at December 31, 2012 and December 31, 2011, respectively. | 12 | 10 |
| Additional paid-in capital | 96,847 | 95,630 |
| Accumulated other comprehensive income | 76 | 49 |
| Accumulated deficit | (97,530) | (94,268) |
| Total stockholders' equity (deficit) | (595) | 1,421 |
| Total liabilities and stockholders' equity (deficit) | \$3,528 | \$3,994 |

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

F-3

TABLE OF CONTENTS**NEPHROS, INC. AND SUBSIDIARY****CONSOLIDATED STATEMENTS OF OPERATIONS
(In Thousands, Except Share and Per Share Amounts)**

| | Years Ended December 31, | |
|----------------------------------------------------------------------|--------------------------|-----------|
| | 2012 | 2011 |
| Net revenue: | | |
| Product revenues | \$1,127 | \$1,849 |
| Licensing revenues | 680 | 365 |
| Total net revenues | 1,807 | 2,214 |
| Cost of goods sold | 737 | 1,346 |
| Gross margin | 1,070 | 868 |
| Operating expenses: | | |
| Research and development | 632 | 451 |
| Depreciation and amortization | 151 | 91 |
| Selling, general and administrative | 3,620 | 2,636 |
| Total operating expenses | 4,403 | 3,178 |
| Loss from operations | (3,333) | (2,310) |
| Interest income | 2 | 4 |
| Interest expense | | (12) |
| Amortization of debt issuance costs | | (40) |
| Other income (expense) | 69 | (2) |
| Net loss | (3,262) | (2,360) |
| Other comprehensive income, foreign currency translation adjustments | 27 | 27 |
| Total comprehensive loss | (3,235) | (2,333) |
| Net loss per common share, basic and diluted | \$(0.29) | \$(0.27) |
| Weighted average common shares outstanding, basic and diluted | 11,223,878 | 8,644,962 |

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

TABLE OF CONTENTS**NEPHROS, INC. AND SUBSIDIARY**

**CONSOLIDATED STATEMENT OF CHANGES IN
STOCKHOLDERS EQUITY
(In Thousands, Except Share Amounts)**

| | Common Stock | | Additional | Accumulated | Accumulated | Total |
|-------------------------------------------------------------|--------------|--------|--------------------|----------------------------|-------------|----------|
| | Shares | Amount | Paid-in Capital | Other Compreh Income | Deficit | |
| Balance, December 31, 2010 | 2,090,552 | \$ 2 | \$ 92,019 | \$ 22 | \$(91,908) | \$ 135 |
| Comprehensive income: | | | | | | |
| Net loss | | | | | (2,360) | (2,360) |
| Net unrealized losses on foreign currency translation | | | | 27 | | 27 |
| Comprehensive loss | | | | | | (2,333) |
| Private placement sale of common stock | 3,009,711 | 3 | 1,201 | | | 1,204 |
| Shareholder rights offering | 4,964,854 | 5 | 1,980 | | | 1,985 |
| Fractional shares not issued | (308) | | | | | |
| Exercise of warrants | 436,668 | | 174 | | | 174 |
| Noncash stock-based compensation | | | 256 | | | 256 |
| Balance, December 31, 2011 | 10,501,477 | \$ 10 | \$ 95,630 | \$ 49 | \$(94,268) | \$ 1,421 |
| Comprehensive income: | | | | | | |
| Net loss | | | | | (3,262) | (3,262) |
| Net unrealized gains on foreign currency translation | | | | 27 | | 27 |
| Comprehensive loss | | | | | | (3,235) |
| Exercise of warrants | 1,448,347 | 2 | 501 | | | 503 |
| Noncash stock-based compensation | | | 443 | | | 443 |
| Issuance of stock options related to licensing agreement | | | 273 | | | 273 |
| Balance, December 31, 2012 | 11,949,824 | \$ 12 | \$ 96,847 | \$ 76 | \$(97,530) | \$(595) |

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

TABLE OF CONTENTS**NEPHROS, INC. AND SUBSIDIARY****CONSOLIDATED STATEMENTS OF CASH FLOWS
(In Thousands)**

| | Years Ended December | |
|-----------------------------------------------------------------------------|----------------------|-------------|
| | 31, 2012 | 2011 |
| Operating activities | | |
| Net loss | \$ (3,262) | \$ (2,360) |
| Adjustments to reconcile net loss to net cash used in operating activities: | | |
| Depreciation of property and equipment | 9 | 91 |
| Amortization of other assets | 142 | |
| Non-cash stock-based compensation | 443 | 256 |
| Inventory reserve | 82 | 200 |
| Amortization of debt issuance costs | | 40 |
| Noncash interest | | 12 |
| Gain on disposal of property and equipment | (55) | |
| Loss on foreign currency transactions | 7 | |
| (Increase) decrease in operating assets: | | |
| Accounts receivable | 1,006 | (832) |
| Inventory | (147) | 295 |
| Prepaid expenses and other current assets | 4 | 76 |
| Long-term receivable | | (778) |
| Increase (decrease) in operating liabilities: | | |
| Accounts payable and accrued expenses | 904 | (357) |
| Deferred revenue | (680) | 2,061 |
| Net cash used in operating activities | (1,547) | (1,296) |
| Investing activities | | |
| Purchase of property and equipment | (8) | |
| Purchase of intangible assets | (659) | |
| Proceeds from sales of property and equipment | 55 | |
| Net cash used in investing activities | (612) | |
| Financing activities | | |
| Repayment of debt | | (500) |
| Payment of financing costs | | (140) |
| Proceeds from exercise of warrants | 503 | 174 |
| Proceeds from issuance of common stock | | 3,189 |
| Net cash provided by financing activities | 503 | 2,723 |
| Effect of exchange rates on cash and cash equivalents | 34 | 2 |
| Net increase (decrease) in cash and cash equivalents | (1,622) | 1,429 |
| Cash and cash equivalents, beginning of year | 1,669 | 240 |
| Cash and cash equivalents, end of year | \$ 47 | \$ 1,669 |

Edgar Filing: NEPHROS INC - Form S-1/A

Supplemental disclosure of cash flow information

| | | |
|-------------------------------------------------|----------|------|
| Cash paid for taxes | \$ 18 | \$ 5 |
| Payable related to license and supply agreement | \$ 1,318 | \$ |
| Receivable related to license agreement | \$ 791 | \$ |
| Fair value of stock options granted to Medica | \$ 273 | \$ |

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

F-6

TABLE OF CONTENTS

NEPHROS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1 Organization and Nature of Operations

Nephros, Inc. (Nephros or the Company) was incorporated under the laws of the State of Delaware on April 3, 1997. Nephros was founded by health professionals, scientists and engineers affiliated with Columbia University to develop advanced End Stage Renal Disease (ESRD) therapy technology and products. The Company has two products in various stages of development in the hemodiafiltration, or HDF, modality to deliver improved therapy for ESRD patients. These are the OLpur MDHDF filter series or dialyzers, designed expressly for HDF therapy, the OLpur H2H, an add-on module designed to allow the most common types of hemodialysis machines to be used for HDF therapy. In 2009, the Company introduced its Dual Stage Ultrafilter (DSU) water filter system, which represents a new and complementary product line to the Company s existing ESRD therapy business. The DSU incorporates the Company s unique and proprietary dual stage filter architecture.

On June 4, 2003, Nephros International Limited was incorporated under the laws of Ireland as a wholly-owned subsidiary of the Company. In August 2003, the Company established a European Customer Service and financial operations center in Dublin, Ireland.

Note 2 Summary of Significant Accounting Policies

Principles of Consolidation and Basis of Presentation

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

These financial statements were approved by management and the Board of Directors and are available for issuance as of the date of the audit opinion. Subsequent events have been evaluated through this date.

Use of Estimates in the Preparation of Financial Statements

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities, at the date of the financial statements, and the reported amount of revenues and expenses, during the reporting period. Actual results could differ materially from those estimates.

Going Concern and Management s Response

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. The Company s recurring losses and difficulty in generating sufficient cash flow to meet its obligations and

sustain its operations raise substantial doubt about its ability to continue as a going concern. The Company's consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

The Company has incurred significant losses in operations in each quarter since inception. For the years ended December 31, 2012 and 2011, the Company has incurred net losses of \$3,262,000 and \$2,360,000, respectively. In addition, the Company has not generated positive cash flow from operations for the years ended December 31, 2012 and 2011. To become profitable, the Company must increase revenue substantially and achieve and maintain positive gross and operating margins. If the Company is not able to increase revenue and gross and operating margins sufficiently to achieve profitability, its results of operations and financial condition will be materially and adversely affected.

On June 27, 2011, the Company entered into a License Agreement, effective July 1, 2011, with Bellco S.r.l., as licensee (Bellco), an Italy-based supplier of hemodialysis and intensive care products, for the manufacturing, marketing and sale of Nephros' patented mid-dilution dialysis filters. This Agreement provides the Company with payments of €500,000, €750,000, and €600,000 on July 1, 2011, January 15, 2012 and January 15, 2013, respectively. All payments have been received. Beginning on January 1, 2015 through and

F-7

TABLE OF CONTENTS

NEPHROS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

**Note 2 Summary of Significant Accounting Policies
(continued)**

including December 31, 2016, Bellco will pay to Nephros a royalty based on the number of units of products sold per year in the territory as follows: for the first 103,000 units sold, €4.50 per unit; thereafter, €4.00 per unit. Anticipated payments from this License Agreement will be a positive source of cash flow to the Company.

On February 4, 2013, the Company issued a senior secured note to Lambda Investors LLC in the principal amount of \$1.3 million. For a more detailed discussion of the terms of the senior secured note, see Note 12, Subsequent Events.

There can be no assurance that the Company's future cash flow will be sufficient to meet its obligations and commitments. If the Company is unable to generate sufficient cash flow from operations in the future to service its commitments the Company will be required to adopt alternatives, such as seeking to raise debt or equity capital, curtailing its planned activities or ceasing its operations. There can be no assurance that any such actions could be effected on a timely basis or on satisfactory terms or at all, or that these actions would enable the Company to continue to satisfy its capital requirements.

Cash and Cash Equivalents

The Company invests its excess cash in bank deposits and money market accounts. The Company considers all highly liquid investments purchased with original maturities of three months or less from the date of purchase to be cash equivalents. Cash equivalents are carried at fair value, which approximate cost, and primarily consist of money market funds maintained at major U.S. financial institutions.

Accounts Receivable

The Company provides credit terms to customers in connection with purchases of the Company's products. Management periodically reviews customer account activity in order to assess the adequacy of the allowances provided for potential collection issues and returns. Factors considered include economic conditions, each customer's payment and return history and credit worthiness. Adjustments, if any, are made to reserve balances following the completion of these reviews to reflect management's best estimate of potential losses. There were no allowances for doubtful accounts at December 31, 2012 or 2011. There was no allowance for sales returns at December 31, 2012 or 2011. There were no write offs of accounts receivable to bad debt expense during 2012 or 2011.

Inventory

The Company engages third parties to manufacture and package inventory held for sale, takes title to certain inventory once manufactured, and warehouses such goods until packaged for final distribution and sale. Inventory consists of finished goods and raw materials (fiber) held at the manufacturers' facilities, and are valued at the lower of cost or

market using the first-in, first-out method. The Company's inventory reserve requirements are based on factors including the products' expiration date and estimates for the future sales of the product. If estimated sales levels do not materialize, the Company will make adjustments to its assumptions for inventory reserve requirements.

Patents

The Company has filed numerous patent applications with the United States Patent and Trademark Office and in foreign countries. All costs and direct expenses incurred in connection with patent applications have been expensed as incurred.

F-8

TABLE OF CONTENTS

NEPHROS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

**Note 2 Summary of Significant Accounting Policies
(continued)**

Property and Equipment, net

Property and equipment, net is stated at cost less accumulated depreciation. These assets are depreciated over their estimated useful lives of three to seven years using the straight line method.

Impairment for Long-Lived Assets

The Company adheres to Accounting Standards Codification (ASC) Topic 360 and periodically evaluates whether current facts or circumstances indicate that the carrying value of its depreciable assets to be held and used may be recoverable. If such circumstances are determined to exist, an estimate of undiscounted future cash flows produced by the long-lived assets, or the appropriate grouping of assets, is compared to the carrying value to determine whether impairment exists. If an asset is determined to be impaired, the loss is measured based on the difference between the asset's fair value and its carrying value. An estimate of the asset's fair value is based on quoted market prices in active markets, if available. If quoted market prices are not available, the estimate of fair value is based on various valuation techniques, including a discounted value of estimated future cash flows. The Company reports an asset to be disposed of at the lower of its carrying value or its estimated net realizable market value. There were no impairment losses for long-lived assets recorded for the years ended December 31, 2012 and December 31, 2011.

Fair Value of Financial Instruments

The carrying amounts of cash and cash equivalents, accounts receivable, accounts payable and accrued expenses approximate fair value due to the short-term maturity of these instruments.

Revenue Recognition

Revenue is recognized in accordance with ASC Topic 605. Four basic criteria must be met before revenue can be recognized: (i) persuasive evidence of an arrangement exists; (ii) delivery has occurred or services have been rendered; (iii) the fee is fixed or determinable; and (iv) collectability is reasonably assured.

The Company recognizes revenue related to product sales when delivery is confirmed by its external logistics provider and the other criteria of ASC Topic 605 are met. Product revenue is recorded net of returns and allowances. All costs and duties relating to delivery are absorbed by Nephros. All shipments are currently received directly by the Company's customers.

Deferred revenue is approximately \$1,414,000 and \$2,094,000 on the accompanying consolidated balance sheet as of December 31, 2012 and 2011, respectively, and is related to the License Agreement with Bellco. The Company has recognized approximately \$1,045,000 of revenue related to this license agreement to date, including approximately \$680,000 for the year ended December 31, 2012, resulting in \$1,414,000 being deferred over the remainder of the expected obligation period. The Company amortizes the deferred revenue monthly over the expected obligation period which ends on December 31, 2014. This will result in expected recognized revenue of approximately \$707,000 in each of the years ending December 31, 2013 and 2014.

The Company received cash payments of approximately \$709,000 in July 2011 and \$951,000 in January 2012. The final guaranteed fixed payment of approximately \$791,000 was received in January 2013 and is included in accounts receivables on the accompanying December 31, 2012 consolidated balance sheet.

Shipping and Handling Costs

Shipping and handling costs are recorded as cost of goods sold and are approximately \$33,000 and \$26,000 for the years ended December 31, 2012 and 2011, respectively.

Research and Development Costs

Research and development costs are expensed as incurred.

TABLE OF CONTENTS

NEPHROS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

**Note 2 Summary of Significant Accounting Policies
(continued)**

Stock-Based Compensation

The Company accounts for stock-based compensation in accordance with ASC Topic 718 by recognizing the fair value of stock-based compensation in the statement of operations. The fair value of the Company's stock option awards are estimated using a Black-Scholes option valuation model. This model requires the input of highly subjective assumptions and elections including expected stock price volatility and the estimated life of each award. In addition, the calculation of compensation costs requires that the Company estimate the number of awards that will be forfeited during the vesting period. The fair value of stock-based awards is amortized over the vesting period of the award. For stock-based awards that vest based on performance conditions (e.g. achievement of certain milestones), expense is recognized when it is probable that the condition will be met.

Amortization of Debt Issuance Costs

The Company accounts for debt issuance costs in accordance with ASC 835, which requires that these costs be reported in the balance sheet as deferred charges and amortized over the term of the associated debt. Amortization of debt issuance costs of \$40,000 for the year ended December 31, 2011 are associated with the senior secured note issued to Lambda Investors LLC. These capitalized costs were fully amortized by the first quarter of 2011. There were no debt issuance costs for the year ended December 31, 2012.

Other Income

Other income in the amount of approximately \$69,000 for the year ended December 31, 2012 was primarily due to approximately \$55,000 arising from the sale of fully depreciated manufacturing equipment sold to Medica in October 2012. The remaining approximately \$14,000 is a result of a combination of adjustments to liabilities and foreign currency losses.

Other expense in the amount of approximately \$2,000 for the year ended December 31, 2011 was due to foreign currency loss on invoices paid to an international supplier.

Income Taxes

The Company accounts for income taxes in accordance with ASC Topic 740, which requires accounting for deferred income taxes under the asset and liability method. Deferred income taxes are recognized for the tax consequences of temporary differences by applying enacted statutory tax rates applicable in future years to differences between the financial statement carrying amounts and the tax basis of existing assets and liabilities.

For financial reporting purposes, the Company has incurred a loss in each period since its inception. Based on available objective evidence, including the Company's history of losses, management believes it is more likely than not that the net deferred tax assets will not be fully realizable. Accordingly, the Company provided for a full valuation allowance against its net deferred tax assets at December 31, 2012 and 2011.

ASC Topic 740 prescribes, among other things, a recognition threshold and measurement attributes for the financial statement recognition and measurement of uncertain tax positions taken or expected to be taken in a company's income tax return. ASC 740 utilizes a two-step approach for evaluating uncertain tax positions. Step one, or recognition, requires a company to determine if the weight of available evidence indicates a tax position is more likely than not to be sustained upon audit, including resolution of related appeals or litigation processes, if any. Step two, or measurement, is based on the largest amount of benefit, which is more likely than not to be realized on settlement with the taxing authority. The Company is subject to income tax examinations by major taxing authorities for all tax years subsequent to 2008. The adoption of the provisions of ASC 740 did not have a material impact on the Company's consolidated financial statements. During the years ended December 31, 2012 and 2011, the Company recognized no adjustments for uncertain tax positions. However, management's conclusions regarding this policy may be subject to review and adjustment at a later date based on factors including, but not limited to, on-going analyses of and changes to tax laws, regulation and interpretations, thereof.

F-10

TABLE OF CONTENTS**NEPHROS, INC.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****Note 2 Summary of Significant Accounting Policies
(continued)****Loss per Common Share**

In accordance with ACS 260-10, net loss per common share amounts (basic EPS) are computed by dividing net loss attributable to common stockholders by the weighted-average number of common shares outstanding and excluding any potential dilution. Net loss per common share amounts assuming dilution (diluted EPS) is generally computed by reflecting potential dilution from conversion of convertible securities and the exercise of stock options and warrants.

The following securities have been excluded from the dilutive per share computation as they are antidilutive.

| | 2012 | 2011 |
|---------------|------------|------------|
| Stock options | 2,294,714 | 747,164 |
| Warrants | 14,679,971 | 16,452,368 |

Foreign Currency Translation

Foreign currency translation is recognized in accordance with ASC Topic 830. The functional currency of Nephros International Limited is the Euro and its translation gains and losses are included in accumulated other comprehensive income. The balance sheet is translated at the year-end rate. The statement of operations is translated at the weighted average rate for the year.

Comprehensive Income (Loss)

Comprehensive income (loss), as defined in ASC 220, is the total of net income (loss) and all other non-owner changes in equity (or other comprehensive income (loss)) such as foreign currency translation adjustments. For the years ended December 31, 2012 and 2011, the comprehensive loss was approximately \$3,235,000 and \$2,333,000, respectively.

Recently Adopted Accounting Pronouncements

In December 2011, the FASB issued an update on comprehensive income, which pertains to the deferral of the effective date for amendments to the presentation of reclassification of items out of accumulated other comprehensive income in a previous accounting standard update that pertained to the presentation of comprehensive income. The update defers the presentation on the face of the financial statements the effects of reclassifications out of accumulated other comprehensive income on the components of net income and other comprehensive income for all periods. All other requirements the previous accounting standard on the presentation of comprehensive income, issued in June 2011, are not affected. The previous presentation related comprehensive income standard requires entities to report

components of comprehensive income in either a continuous statement of comprehensive income or two separate but consecutive statements. Under the continuous statement approach, the statement would include the components and total of net income, the components and total of other comprehensive income and the total of comprehensive income. Under the two statement approach, the first statement would include the components and total of net income and the second statement would include the components and total of other comprehensive income and the total of comprehensive income. It does not change the items that must be reported in other comprehensive income and it is effective retrospectively for interim and annual periods beginning after December 15, 2011, with early adoption permitted. The Company adopted this guidance as of January 1, 2012 and since this relates to presentation only, the adoption of this guidance did not have any other effect on the Company's consolidated financial statements.

F-11

TABLE OF CONTENTS**NEPHROS, INC.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****Note 3 Inventory**

The Company's inventory components as of December 31, 2012 and 2011 were as follows:

| | December 31, | |
|---------------------------------------|--------------|------------|
| | 2012 | 2011 |
| Total Gross Inventory, Finished Goods | \$ 581,000 | \$ 465,000 |
| Less: Inventory reserve | (269,000) | (218,000) |
| Total Inventory | \$ 312,000 | \$ 247,000 |

Note 4 Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets as of December 31, 2012 and 2011 were as follows:

| | December 31, | |
|-------------------------------------------|--------------|------------|
| | 2012 | 2011 |
| Prepaid insurance premiums | \$ 78,000 | \$ 88,000 |
| Security deposit | 21,000 | 21,000 |
| Other | 10,000 | 4,000 |
| Prepaid expenses and other current assets | \$ 109,000 | \$ 113,000 |

Note 5 Property and Equipment, Net

Property and equipment as of December 31, 2012 and 2011 was as follows:

| | Life | December 31, | |
|--------------------------------|-------------|--------------|--------------|
| | | 2012 | 2011 |
| Manufacturing equipment | 3 - 5 years | \$ 602,000 | \$ 1,980,000 |
| Research equipment | 5 years | 37,000 | 37,000 |
| Computer equipment | 3 - 4 years | 59,000 | 59,000 |
| Furniture and fixtures | 7 years | 39,000 | 39,000 |
| Property and equipment, gross | | 737,000 | 2,115,000 |
| Less: accumulated depreciation | | 721,000 | 2,098,000 |
| Property and equipment, net | | \$ 16,000 | \$ 17,000 |

Depreciation expense for the years ended December 31, 2012 and 2011 was approximately \$9,000 and \$91,000, respectively, including amortization expense relating to research and development assets.

During 2012, the Company agreed to sell its manufacturing equipment located in the CM to Medica for approximately €42,500 or \$55,000. All assets at the manufacturing plant were fully depreciated as of the date of the sale.

Approximately €42,500 or \$55,000 is recognized as other income on the consolidated statement of operations for the year ended December 31, 2012.

F-12

TABLE OF CONTENTS**NEPHROS, INC.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****Note 6 Accrued Expenses**

Accrued expenses as of December 31, 2012 and 2011 were as follows:

| | December 31, | |
|--------------------------------|--------------|------------|
| | 2012 | 2011 |
| Accrued Legal | \$ 90,000 | \$ 52,000 |
| Accrued Directors Compensation | 77,000 | 30,000 |
| Accrued Management Bonus | | 79,000 |
| Accrued Accounting | | 15,000 |
| Accrued Travel | 84,000 | |
| Accrued Other | 70,000 | 19,000 |
| Accrued Expenses | \$ 321,000 | \$ 195,000 |

Note 7 Income Taxes

A reconciliation of the income tax provision computed at the statutory tax rate to the Company's effective tax rate is as follows:

| | 2012 | 2011 |
|----------------------------------------|-----------|-----------|
| U.S. federal statutory rate | 35.00 % | 35.00 % |
| State & local taxes | 5.36 % | (0.06)% |
| Tax on foreign operations | (0.78)% | (1.27)% |
| State research and development credits | 1.06 % | 1.11 % |
| Other | (2.29)% | (3.07)% |
| Valuation allowance | (38.35)% | (31.71)% |
| Effective tax rate | | |

Significant components of the Company's deferred tax assets as of December 31, 2012 and 2011 are as follows:

| | 2012 | 2011 |
|------------------------------------------------|---------------|---------------|
| Deferred tax assets: | | |
| Net operating loss carry forwards | \$ 25,721,000 | \$ 24,714,000 |
| Research and development credits | 1,054,000 | 1,019,000 |
| Nonqualified stock option compensation expense | 1,701,000 | 1,586,000 |
| Other temporary book tax differences | 441,000 | 331,000 |
| Total deferred tax assets | 28,917,000 | 27,650,000 |
| Valuation allowance for deferred tax assets | (28,917,000) | (27,650,000) |
| Net deferred tax assets | \$ | \$ |

A valuation allowance has been recognized to offset the Company's net deferred tax asset as it is more likely than not that such net asset will not be realized. The Company primarily considered its historical loss and potential Internal Revenue Code Section 382 limitations to arrive at its conclusion that a valuation allowance was required.

At December 31, 2012, the Company had Federal and New Jersey income tax net operating loss carryforwards of \$81,616,000 and foreign income tax net operating loss carryforwards of \$8,233,000. The Company also had Federal research tax credit carryforwards of \$1,054,000 at December 31, 2012 and \$1,020,000 at December 31, 2011. The Federal net operating loss and tax credit carryforwards will expire at various times between 2013 and 2026 unless utilized.

It is the Company's policy to report interest and penalties, if any, related to unrecognized tax benefits in income tax expense.

F-13

TABLE OF CONTENTS

NEPHROS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 8 Stock Plans, Share-Based Payments and Warrants

Stock Plans

In 2000, the Company adopted the Nephros 2000 Equity Incentive Plan. In January 2003, the Board of Directors adopted an amendment and restatement of the plan and renamed it the Amended and Restated Nephros 2000 Equity Incentive Plan (the 2000 Plan), under which 106,538 shares of common stock had been authorized for issuance upon exercise of options granted.

As of December 31, 2012 and 2011, 2,053 options had been issued to non-employees under the 2000 Plan and were outstanding. Such options expire at various dates through March 15, 2014, all of which are fully vested. As of December 31, 2012 and 2011, 7,230 options had been issued to employees under the 2000 Plan and were outstanding. Such options expire at various dates between January 22, 2013 and March 15, 2014, all of which are fully vested.

The Board retired the 2000 Plan in June 2004, and thereafter no additional awards may be granted under the 2000 Plan.

In 2004, the Board of Directors adopted and the Company's stockholders approved the Nephros, Inc. 2004 Stock Incentive Plan, and, in June 2005, the Company's stockholders approved an amendment to such plan (as amended, the 2004 Plan), that increased to 40,000 the number of shares of the Company's common stock that are authorized for issuance by the Company pursuant to grants of awards under the 2004 Plan. In May 2007, the Company's stockholders approved an amendment to the 2004 Plan that increased to 65,000 the number of shares of the Company's common stock that are authorized for issuance by the Company pursuant to grants of awards under the 2004 Plan. In June 2008, the Company's stockholders approved an amendment to the 2004 Plan that increased to 134,849 the number of shares of the Company's common stock that are authorized for issuance by the Company pursuant to grants of awards under the 2004 Plan. In January 2011, the Company's stockholders approved an amendment to the 2004 Plan that increased to 1,990,717 the number of shares of the Company's common stock that are authorized for issuance by the Company pursuant to grants of awards under the 2004 Plan.

As of December 31, 2011, 443,128 options had been issued to employees under the 2004 Plan and were outstanding. The options expire on various dates between April 27, 2015 and March 24, 2021, and vest upon a combination of the following: immediate vesting or straight line vesting of two or four years. At December 31, 2011, there were 1,235,904 shares available for future grants under the 2004 Plan. As of December 31, 2011, 294,753 options had been issued to non-employees under the 2004 Plan and were outstanding. Such options expire at various dates between November 11, 2014 and November 18, 2021, and vest upon a combination of the following: immediate vesting or straight line vesting of two or four years.

As of December 31, 2012, 1,316,628 options had been issued to employees under the 2004 Plan and were outstanding. The options expire on various dates between April 27, 2015 and April 20, 2022, and vest upon a combination of the following: immediate vesting or straight line vesting of two to four years. At December 31, 2012, there were 19,904

shares available for future grants under the 2004 Plan. As of December 31, 2012, 637,253 options had been issued to non-employees under the 2004 Plan and were outstanding. Such options expire at various dates between November 11, 2014 and April 23, 2022, and vest upon a combination of the following: immediate vesting or straight line vesting of two to four years.

An additional 331,550 options were issued to the Company's CEO per terms of his employment agreement.

Share-Based Payment

Prior to the Company's initial public offering, options were granted to employees, non-employees and non-employee directors at exercise prices which were lower than the fair market value of the Company's stock on the date of grant.

After the date of the Company's initial public offering, stock options are granted to

TABLE OF CONTENTS**NEPHROS, INC.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****Note 8 Stock Plans, Share-Based Payments and Warrants
(continued)**

employees, non-employees and non-employee directors at exercise prices equal to the fair market value of the Company's stock on the date of grant. Stock options granted have a life of 10 years.

Unvested options as of December 31, 2012 currently vest upon a combination of the following: immediate vesting or straight line vesting of two or four years.

Expense is recognized, net of expected forfeitures, over the vesting period of the options. For options that vest upon the achievement of certain milestones, expense is recognized when it is probable that the condition will be met. Stock based compensation expense recognized for the years ended December 31, 2012 and 2011 was approximately \$443,000 or less than \$0.04 per share and approximately \$256,000 or less than \$0.03 per share, respectively.

The fair value of each option grant is estimated on the date of grant using the Black-Scholes option pricing model with the below assumptions related to risk-free interest rates, expected dividend yield, expected lives and expected stock price volatility.

| Grant Year | Option Pricing Assumptions | | | |
|--------------------------|----------------------------|---------|--------|---------|
| | 2012 | | 2011 | |
| Stock Price Volatility | 123.48 | 128.54% | 121.96 | 130.06% |
| Risk-Free Interest Rates | 0.93 | 1.32 % | 1.08 | 2.42 % |
| Expected Life (in years) | 5.75 | 6.25 | 5.00 | 5.50 |
| Expected Dividend Yield | 0 | % | 0 | % |

Expected volatility is based on historical volatility of the Company's common stock at the time of grant. The risk-free interest rate is based on the U.S. Treasury yields in effect at the time of grant for periods corresponding with the expected life of the options. For the expected life, the Company is using the simplified method as described in the SEC Staff Accounting Bulletin 107. This method assumes that stock option grants will be exercised based on the average of the vesting periods and the option's life.

The total fair value of options vested during the fiscal year ended December 31, 2012 was approximately \$506,000. The total fair value of options vested during the fiscal year ended December 31, 2011 was approximately \$249,000.

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

| Range of Exercise Price | Options Outstanding | | Options Exercisable | |
|-------------------------|---------------------|------------------|-------------------------|------------------------------|
| | Number Outstanding | Weighted Average | Weighted Number Average | Weighted Exercisable Average |

Edgar Filing: NEPHROS INC - Form S-1/A

| | | as of December 31, 2012 | Remaining Contractual Life in Years | Exercise Price | as of December 31, 2012 | Exercise Price |
|-------------------|---------|-------------------------------|-------------------------------------------|-------------------|-------------------------------|-------------------|
| \$0.41 | \$2.60 | 2,251,700 | 9.01 | \$ 0.94 | 736,635 | \$ 0.77 |
| \$15.00 | \$29.80 | 28,853 | 5.63 | \$ 17.74 | 27,240 | \$ 17.78 |
| \$34.20 | \$96.00 | 14,161 | 1.36 | \$ 52.99 | 14,160 | \$ 52.99 |
| Total Outstanding | | 2,294,714 | | \$ 1.46 | 778,035 | \$ 2.26 |

The number of new options granted in 2012 and 2011 is 1,547,550 and 702,500 respectively. The weighted-average fair value of options granted in 2012 and 2011 is \$1.03 and \$0.45, respectively.

F-15

TABLE OF CONTENTS**NEPHROS, INC.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****Note 8 Stock Plans, Share-Based Payments and Warrants
(continued)**

The following table summarizes the option activity for the years ended December 31, 2012 and 2011:

| | Shares | Weighted Average Exercise Price |
|---------------------------------------|-----------|------------------------------------------|
| Outstanding at December 31, 2011 | 747,164 | \$ 2.14 |
| Options granted | 1,547,550 | 1.13 |
| Options exercised | | |
| Options forfeited | | |
| Outstanding at December 31, 2012 | 2,294,714 | 1.46 |
| Expected to vest at December 31, 2012 | 778,035 | \$ 2.26 |
| Exercisable at December 31, 2012 | 2,206,747 | \$ 1.47 |

The aggregate intrinsic value of stock options outstanding at December 31, 2012 is \$793,000 and the stock options vested or expected to vest is approximately \$768,000. A stock option has intrinsic value, at any given time, if and to the extent that the exercise price of such stock option is less than the market price of the underlying common stock at such time. The weighted-average remaining contractual life of options vested or expected to vest is 8.9 years.

The aggregate intrinsic value of stock options outstanding at December 31, 2011 is \$126,000 and the stock options vested or expected to vest is approximately \$121,000. A stock option has intrinsic value, at any given time, if and to the extent that the exercise price of such stock option is less than the market price of the underlying common stock at such time. The weighted-average remaining contractual life of options vested or expected to vest is 9.1 years.

As of December 31, 2012, the total remaining unrecognized compensation cost related to non-vested stock options amounted to \$1,074,000 and will be amortized over the weighted-average remaining requisite service period of 3.0 years.

Warrants

The following table summarizes certain terms of all of the Company's outstanding warrants at December 31, 2012 and 2011:

Total Outstanding Warrants at December 31, 2012

| Title of Warrant | Date Issued | Expiry Date | Exercise Price | Total Common Shares Issuable | |
|--------------------------------------|-------------|-------------|----------------|------------------------------|------------|
| | | | | 2012 | 2011 |
| Class D Warrants Lambda | 11/14/2007 | 3/10/2016 | \$ 0.40 | 8,806,575 | 8,806,575 |
| Class D Warrants Other | 11/14/2007 | 11/14/2012 | \$ 0.40 | | 447,197 |
| Placement Agent Warrants | 11/14/2007 | 11/14/2012 | \$ 0.40 | | 228,887 |
| July 2009 Warrants | 7/24/2009 | 7/24/2014 | \$ 22.40 | 33,629 | 33,629 |
| Shareholder Rights Offering Warrants | 3/10/2011 | 3/10/2016 | \$ 0.40 | 3,057,190 | 4,153,503 |
| March 2011 Lambda Warrants | 3/10/2011 | 3/10/2016 | \$ 0.40 | 2,782,577 | 2,782,577 |
| | | | | 14,679,971 | 16,452,368 |

The weighted average exercise price of the outstanding warrants was \$0.45 for December 31, 2012 and 2011.

Class D Warrants

The Company issued Class D Warrants in 2007 to purchase an aggregate of 455,628 shares of the Company's common stock to the Investors upon conversion of the purchased notes. The Company recorded

TABLE OF CONTENTS**NEPHROS, INC.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****Note 8 Stock Plans, Share-Based Payments and Warrants
(continued)**

the issuance of the Class D Warrants at their approximate fair market value of \$3,763,000. The value of the Class D Warrants was computed using the Black-Scholes option pricing model. Our largest stockholder, Lambda Investors LLC, received Class D Warrants in 2007 to purchase 359,541 shares of the Company's common stock and Other Investors received Class D Warrants in 2007 to purchase 96,087 shares of the Company's common stock. A Class D warrant holder elected to exercise 86,150 of the 455,628 Class D Warrants outstanding as of June 2009 pursuant to the cashless exercise provision of the warrant which is described below. See Issuance of Common Stock due to Class D Warrants Cashless Exercise Provision.

Effect of Shareholders Rights Offering in 2011

The Class D Warrants have full-ratchet anti-dilution provisions that were activated by the Shareholders Rights Offering in 2011. Following the closing of the rights offering in 2011, and after giving effect to the anti-dilution provisions, Lambda Investors agreed to surrender for cancellation warrants to purchase 7,372,348 shares of our common stock. In addition, following the closing of the rights offering, Lambda Investors' existing warrants to purchase 8,806,575 shares that remain outstanding were amended to expire at the same time as the warrants issued in the rights offering, which is March 10, 2016.

The following table summarizes the Class D outstanding warrants at December 31, 2012 and 2011:

| | Lambda Investors | Other Investors | Total Shares to be issued |
|------------------------------------|------------------|-----------------|------------------------------|
| As of December 31, 2010 | 359,541 | 9,937 | 369,478 |
| Anti-dilution ratcheting provision | 15,819,382 | 437,260 | 16,256,642 |
| Surrendered-rights offering | (7,372,348) | 0 | (7,372,348) |
| As of December 31, 2011 | 8,806,575 | 447,197 | 9,253,772 |
| Exercised in 2012 | | (352,034) | (352,034) |
| Expired in 2012 | | (95,163) | (95,163) |
| As of December 31, 2012 | 8,806,575 | | 8,806,575 |

**Issuance of Common Stock due to Class D Warrants Cashless
Exercise Provision**

The Series D warrants have a cashless exercise provision which states, "If, and only if, at the time of exercise pursuant to this Section 1 there is no effective registration statement registering, or no current prospectus available for, the sale of the Warrant Shares to the Holder or the resale of the Warrant Shares by the Holder and the VWAP (as defined below) is greater than the Per Share Exercise Price at the time of exercise, then this Warrant may also be exercised at

such time and with respect to such exercise by means of a cashless exercise in which the Holder shall be entitled to receive a certificate for the number of Warrant Shares equal to the quotient obtained by dividing (i) the result of (x) the difference of (A) minus (B), multiplied by (y) (C), by (ii) (A), where:

(A) = the VWAP (as defined below) on the Trading Day (as defined below) immediately preceding the date of such election;

(B) = the Per Share Exercise Price of this Warrant, as adjusted; and

(C) = the number of Warrant Shares issuable upon exercise of this Warrant in accordance with the terms of this Warrant by means of a cash exercise rather than a cashless exercise.

VWAP means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted for trading on the New York Stock Exchange, American Stock Exchange, NASDAQ Capital Market, NASDAQ Global Market, NASDAQ Global Select Market or the OTC Bulletin Board, or any successor to any of the foregoing (a Trading Market), the daily volume weighted average price of the Common Stock on the Trading Market on which the Common Stock is then listed or quoted for trading as reported by Bloomberg L.P. for such date if such date is a date on which the

TABLE OF CONTENTS

NEPHROS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

**Note 8 Stock Plans, Share-Based Payments and Warrants
(continued)**

Trading Market on which the Common Stock is then listed or quoted for trading (a Trading Day) or the nearest preceding Trading Date (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time); (b) if the Common Stock is not then listed or quoted for trading on a Trading Market and if prices for the Common Stock are then reported in the Pink Sheets published by Pink Sheets, LLC (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported; or (c) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holder and reasonably acceptable to the Company.

The Company did not have an effective registration statement or a current prospectus available for the sale of the warrant shares to the holder or the resale of the warrant shares by the holder and the VWAP (as defined above) was greater than the per share exercise price from June 8, 2009 through August 26, 2009.

A Class D warrant holder elected to exercise 86,150 of the 455,628 Class D Warrants outstanding as of June 2009 pursuant to the cashless exercise provision of the warrant. As a result, 54,561 shares of common stock were issued to this Class D warrant holder in August 2009.

Class D warrant holders elected to exercise 352,034 of the outstanding Class D Warrants in 2012. As a result, 190,326 were exercised pursuant to the cashless exercise provision of the warrant. In addition, 161,708 warrants were exercised resulting in proceeds of approximately \$65,000.

The number of shares outstanding in the December 31, 2012 balance sheet and the number of shares outstanding used in the earnings per share calculation for the twelve months ended December 31, 2012 include those shares outstanding as a result of the exercises discussed above.

Placement Agent Warrants

The Company issued placement agent warrants in 2007 to purchase an aggregate of 87,819 shares of the Company's common stock to the Company's placement agents in connection with their roles in the Company's fall 2007 financing (the 2007 Financing). The Company recorded the issuance of the placement agent warrants at their approximate fair market value of \$1,047,000. The value of the placement agent warrants was computed using the Black-Scholes option pricing model.

Placement Agents elected to exercise 81,335 of the 87,819 Placement Agent Warrants outstanding in June 2009. All elected the Cashless Exercise provision of their warrants. As a result, 36,913 shares of common stock were issued to the Placement Agents in June 2009.

Effect of Shareholders Rights Offering in 2011

The Placement Agent Warrants have full-ratchet anti-dilution provisions that were activated by the shareholders rights offering in 2011.

The outstanding Placement Agent expired on November 12, 2012.

Issuance of Common Stock due to Placement Agent Warrants Cashless Exercise Provision

National Securities Corporation (NSC) and Dinosaur Securities, LLC (Dinosaur) and together with NSC, the Placement Agents) acted as co-placement agents in connection with the 2007 Financing pursuant to an Engagement Letter, dated June 6, 2007 and a Placement Agent Agreement dated September 18, 2007. The Placement Agents received (i) an aggregate cash fee equal to 8% of the face amount of the notes purchased in the 2007 Financing (the Purchased Notes) and paid 6.25% to NSC and 1.75% to Dinosaur, and (ii) warrants (Placement Agent Warrant) with a term of five years from the date of issuance to purchase 10% of the aggregate number of shares of the Company s common stock issued upon conversion of the Purchased Notes with an exercise price per share of the Company s common stock equal to \$14.10. The

F-18

TABLE OF CONTENTS

NEPHROS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

**Note 8 Stock Plans, Share-Based Payments and Warrants
(continued)**

Company issued Placement Agents Warrants to purchase an aggregate of 87,819 shares of the Company's common stock to the Placement Agent in November 2007 in connection with their roles in the 2007 Financing.

The Placement Agent Warrants have a cashless exercise provision identical to that in the Series D Warrants.

The Company did not have an effective registration statement or a current prospectus available for the sale of the warrant shares to the holders or the resale of the warrant shares by the holders and the VWAP (as defined above) was greater than the per share exercise price from June 8 through August 26, 2009. Several Placement Agents elected to exercise the cashless exercise provision of their warrants.

July 2009 Private Placement

On July 24, 2009, the Company raised gross proceeds of \$1,251,000 through the private placement to eight accredited investors of an aggregate of 67,258 shares of its common stock and warrants to purchase an aggregate of 33,629 shares of its common stock, representing 50% of the shares of common stock purchased by each investor. The Company sold the shares to investors at a price per share equal to \$18.60. The warrants have an exercise price of \$22.40, are exercisable immediately and will terminate on July 24, 2014. The warrants have no anti-dilution ratcheting provision therefore; they did not increase as a result of the 2011 Shareholders' Rights Offering.

2011 Shareholders' Rights Offering

On March 10, 2011, Nephros announced the completion of its rights offering and private placement that together resulted in gross proceeds of approximately \$3.2 million and net proceeds of approximately \$2.3 million to Nephros after deducting the payments to Lambda Investors LLC and after estimated expenses of the rights offering. In the rights offering, Nephros sold 4,964,854 units at \$0.40 per unit for gross proceeds of approximately \$2.0 million, resulting in the issuance of 4,964,854 shares of common stock and warrants to purchase an aggregate of 4,590,171 shares of common stock. The warrants expire on March 10, 2016 and have an exercise price of \$0.40 per share.

On March 10, 2011, based on the completion of the rights offering, Lambda Investors LLC, the Company's largest stockholder, purchased in a private placement 3,009,711 units at a per unit purchase price of \$0.40 for aggregate gross proceeds of approximately \$1.2 million, pursuant to a purchase agreement between Nephros and Lambda Investors LLC. Each unit consisted of one share of common stock and a warrant to purchase 0.924532845 shares of common stock at an exercise price of \$0.40 per share for a period of five years following the issue date of the warrant, resulting in Lambda Investors LLC acquiring 3,009,711 shares of common stock and a warrant to purchase 2,782,577 shares of common stock. Net proceeds, after deducting the aggregate of \$666,650 in payments due Lambda Investors LLC were approximately \$537,000.

On January 10, 2011, the Company's stockholders voted to implement a 1:20 reverse stock split of the Company's common stock. The reverse split became effective on March 11, 2011. All of the share and per share amounts discussed in these financial statements on Form 10-K have been adjusted to reflect the effect of this reverse split.

Warrants exercised during 2012 and 2011

Shareholders exercised 1,096,313 for proceeds of approximately \$438,000 and 436,668 warrants for proceeds of approximately \$174,000 for the years ended December 31, 2012 and 2011, respectively.

F-19

TABLE OF CONTENTS

NEPHROS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 9 401(k) Plan

The Company has established a 401(k) deferred contribution retirement plan (the 401(k) Plan) which covers all employees. The 401(k) Plan provides for voluntary employee contributions of up to 15% of annual earnings, as defined. As of January 1, 2004, the Company began matching 100% of the first 3% and 50% of the next 2% of employee earnings to the 401(k) Plan. The Company contributed and expensed \$49,000 and \$28,000 in 2012 and 2011, respectively.

Note 10 Commitments and Contingencies

Manufacturing and Suppliers

The Company has not and does not intend in the near future, to manufacture any of its products and components. With regard to the OLpur MD190 and MD220, on June 27, 2011, the Company entered into a license agreement, effective July 1, 2011, with Bellco S.r.l., an Italy-based supplier of hemodialysis and intensive care products, for the manufacturing, marketing and sale of our patented mid-dilution dialysis filters (MD 190, MD 220), referred to herein as the Products. Under the agreement, Nephros granted Bellco a license to manufacture, market and sell the Products under its own name, label and CE mark in Italy, France, Belgium, Spain and Canada on an exclusive basis, and to do the same on a non-exclusive basis in the United Kingdom and Greece and, upon our written approval, other European countries where the Company does not sell the Products as well as non-European countries (referred to as the Territory).

In exchange for the rights granted to it under the Bellco license agreement through December 31, 2014, Bellco made installment payments to Nephros of €500,000, €750,000, €600,000 on July 1, 2011, January 15, 2012 and January 15, 2013, respectively. Such installment payments, herein referred to as the Installment Payments, are Bellco's sole financial obligations through December 31, 2014. Beginning on January 1, 2015 through and including December 31, 2016, Bellco will pay Nephros a royalty based on the number of units of Products sold per year in the Territory as follows: for the first 103,000 units sold, Bellco will pay €4.50 per unit; thereafter, Bellco will pay €4.00 per unit. Bellco must meet minimum sales targets of 15,000 units in each quarter of 2015 and 2016. If Bellco fails to meet a quarterly minimum, the license in Italy, France, Belgium, Spain and Canada will, at our discretion, convert to a non-exclusive one. All sums payable under the agreement will be paid in Euros, as adjusted to account for currency exchange fluctuations between the Euro and the U.S. dollar that occur between July 1, 2011, the effective date of the agreement, and the date of payment.

License and Supply Agreement

On April 23, 2012, the Company entered into a License and Supply Agreement (the License and Supply Agreement) with Medica S.p.A. (Medica), an Italy-based medical product manufacturing company, for the marketing and sale of certain filtration products based upon Medica's proprietary Medisulfone ultrafiltration technology in conjunction with

the Company's filtration products (collectively, the Filtration Products), and to engage in an exclusive supply arrangement for the Filtration Products. Under the License and Supply Agreement, Medica granted to the Company an exclusive license, with right of sublicense, to market, promote, distribute, offer for sale and sell the Filtration Products worldwide, excluding Italy for the first three years, during the term of the License and Supply Agreement. In addition, the Company granted to Medica an exclusive license under the Company's intellectual property to make the Filtration Products during the term of the License and Supply Agreement. In exchange for the rights granted, the Company has agreed to make minimum annual aggregate purchases from Medica of €300,000, €500,000 and €750,000 for the years 2012, 2013 and 2014, respectively. In the year ended December 31, 2012 the Company's aggregate purchase commitments totaled approximately €585,000. For calendar years thereafter, annual minimum amounts will be mutually agreed upon between Medica and the Company.

As consideration for the license and other rights granted to the Company, the Company is required to pay Medica installment payments of €500,000 and €1,000,000 on April 23, 2012 and January 25, 2013, respectively. The April 23, 2012 payment was made. The January 25, 2013 payment is included at

F-20

TABLE OF CONTENTS

NEPHROS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 10 Commitments and Contingencies (continued)

December 31, 2012 as license and supply agreement fee payable of approximately \$1,318,000. See Note 12, Subsequent Events, for the current status of January 25, 2013 payment. The total installment payments approximate \$1,978,000. As further consideration for the license and other rights granted to the Company, the Company granted Medica options to purchase 300,000 shares of the Company's common stock. The fair market value of these stock options was approximately \$273,000 at the time of their issuance, calculated as described in Note 2 under Stock-Based Compensation. The fair market value of the options has been capitalized as a long-term intangible asset along with the total installment payments described. Other long-term assets on the consolidated balance sheet is approximately \$2,109,000, net of \$142,000 accumulated amortization, and is related to the License and Supply Agreement. The asset is being amortized as an expense over the life of the agreement. Approximately \$142,000 has been charged to amortization expense for the year ended December 31, 2012 on the consolidated statement of operations and comprehensive loss. Approximately \$208,000 of amortization expense will be recognized in the years ended December 31, 2013, 2014 and 2015, respectively. In addition, for the period beginning April 23, 2014 through December 31, 2022, the Company will pay Medica a royalty rate of 3% of net sales of the Filtration Products sold, subject to reduction as a result of a supply interruption pursuant to the terms of the License and Supply Agreement. The term of the License and Supply Agreement commenced on April 23, 2012 and continues in effect through December 31, 2022, unless earlier terminated by either party in accordance with the terms of the License and Supply Agreement.

Employment Agreement

On April 20, 2012, the Company entered into an Employment Agreement, effective as of April 20, 2012, with John C. Houghton (Employment Agreement). The Employment Agreement has a term of four years, ending on April 20, 2016. The Employment Agreement provides that Mr. Houghton's annual base salary will be \$350,000. Mr. Houghton will be eligible to receive a target discretionary bonus of 30% of annual base salary, as determined by the Company. The targets with respect to the bonus for the year ended December 31, 2012 were mutually agreed upon between Mr. Houghton and the Compensation Committee of the Board within 60 days following April 20, 2012 and such bonus will be appropriately prorated for such annual period. The targets for each subsequent annual period will be mutually agreed upon at the beginning of each calendar year between Mr. Houghton and the Compensation Committee.

Contractual Obligations

The Company had an operating lease that expired on November 30, 2012 for the rental of its U.S. office and research and development facilities with a monthly cost of approximately \$7,813. On June 26, 2012, the Company signed a one year lease extension for the same office space which will expire on November 30, 2013 with a monthly cost of approximately \$8,399 beginning December 1, 2012.

Rent expense for the years ended December 31, 2012 and 2011 totaled \$109,000 and \$104,000, respectively.

Contractual Obligations and Commercial Commitments

The following tables summarize our approximate minimum contractual obligations and commercial commitments as of December 31, 2012:

| | Payments Due in Period | | | | |
|----------------------|------------------------|------------------|----------------|----------------|----------------------|
| | Total | Within 1 Year | Years 1 - 3 | Years 4 - 5 | More than 5 Years |
| Leases | \$ 113,000 | \$ 99,000 | \$ 14,000 | \$ | \$ |
| Employment Contracts | 1,402,000 | 550,000 | 852,000 | | |
| Total | \$ 1,515,000 | \$ 649,000 | \$ 866,000 | \$ | \$ |

F-21

TABLE OF CONTENTS

NEPHROS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 11 Concentration of Credit Risk

Cash and cash equivalents are financial instruments which potentially subject the Company to concentrations of credit risk. The Company deposits its cash in financial institutions. At times, such deposits may be in excess of insured limits. To date, the Company has not experienced any impairment losses on its cash and cash equivalents.

Major Customers

For the year ended December 31, 2012 and 2011, four customers accounted for 79% and 83%, respectively, of the Company's sales. In addition, as of December 31, 2012 and 2011, those four customers accounted for 98% and 89%, respectively, of the Company's accounts receivable.

Note 12 Subsequent Events

On February 4, 2013, the Company issued a senior secured note to Lambda Investors LLC in the principal amount of \$1.3 million. The note bears interest at the rate of 12% per annum and matures on August 4, 2013, at which time all principal and accrued interest will be due. However, the Company has agreed to prepay amounts due under the note with the cash proceeds from (a) a rights offering and an offering of a discounted exercise price to public warrant holders, each as further described in the note, (b) any other equity or debt financing, or (c) the issuance or incurrence of any other indebtedness or the sale of any assets outside the ordinary course of business, in each case prior to the maturity date. If the Company does not pay principal and interest under the note when due, the interest rate increases to 16% per annum. The Company may prepay the note without penalty at any time. The note is secured by a first priority lien on all of the Company's property, including our intellectual property. As long as indebtedness remains outstanding under the note, the Company will be subject to certain covenants which, among other things, restrict the Company's ability to merge with another company, sell a material amount of its assets, incur any additional indebtedness, repay any existing indebtedness, or declare or pay any dividends in cash, property or securities. In connection with the note, the Company has agreed to pay Lambda Investors an 8%, or \$104,000, sourcing/transaction fee. In addition, the Company will pay Lambda Investors' legal fees and other expenses incurred in connection with the note in the amount of \$50,000 as well as Lambda Investors' legal fees and other expenses incurred in connection with the rights offering in the amount of \$50,000. Those payments will be paid upon the completion of the rights offering or, if earlier, upon the maturity of the note. As additional consideration, the Company agreed to extend by one year the expiration date of all of Lambda's outstanding warrants to March 2017. In addition, the Company has undertaken to conduct a \$3 million rights offering of common stock. The Company expects the offering price will be \$0.60 per share. All of the Company's stockholders and warrant holders will be eligible to participate in the offering on a pro rata basis based upon their proportionate ownership of the company's common stock on a fully-diluted basis. Subject to the satisfaction of certain conditions including compliance with all obligations under the note, security agreement and the other transaction documents relating to the note and no material adverse change having occurred with respect to the business, assets, and financial condition of the Company, Lambda Investors has advised the Company that it intends to exercise its basic subscription privilege in full and to purchase any shares of common stock that are not subscribed for by other stockholders in the rights offering, if any. During the period when the rights

offering is open, the Company expects to offer to public warrant holders of the Company holding the warrants issued at the close of the March 2011 rights offering a one-time right, at their option, to exercise such warrants for an exercise price of \$0.30 per share discounted from \$0.40 per share. The Company expects to commence the offering in March 2013 following the filing of its Annual Report on Form 10-K. In connection with the offering, the Company will file a registration statement on Form S-1, as may be amended, with the Securities and Exchange Commission.

On February 4, 2013, €600,000 was paid to Medica per the terms of the license and supply agreement described in Note 10 of these consolidated financial statements. Both parties agreed that the remaining €400,000 will be paid in June 2013.

F-22

TABLE OF CONTENTS

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth the estimated costs and expenses payable by the registrant in connection with the sale of the securities being registered. All amounts are estimates.

| | |
|-----------------------------------------|--------------|
| Printing and distribution expenses | \$ 10,000 |
| Legal fees and expenses | \$ 190,000 |
| Accounting fees and expenses | \$ 20,000 |
| Blue Sky fees and expenses | \$ 10,000 |
| Subscription and information agent fees | \$ 15,000 |
| Miscellaneous | \$ 5,000 |
| Total | = \$ 250,000 |

Item 14. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law, or DGCL, permits a corporation, under specified circumstances, to indemnify its directors, officers, employees or agents against expenses (including attorneys' fees), judgments, fines and amounts paid in settlements actually and reasonably incurred by them in connection with any action, suit or proceeding brought by third parties by reason of the fact that they were or are directors, officers, employees or agents of the corporation, if such directors, officers, employees or agents acted in good faith and in a manner they reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, had no reason to believe their conduct was unlawful. In a derivative action, that is one by or in the right of the corporation, indemnification may be made only for expenses actually and reasonably incurred by directors, officers, employees or agents in connection with the defense or settlement of an action or suit, and only with respect to a matter as to which they will have acted in good faith and in a manner they reasonably believed to be in or not opposed to the best interests of the corporation, except that no indemnification will be made if such person will have been adjudged liable to the corporation, unless and only to the extent that the court in which the action or suit was brought will determine upon application that the defendant directors, officers, employees or agents are fairly and reasonably entitled to indemnity for such expenses despite such adjudication of liability.

Our Fourth Amended and Restated Certificate of Incorporation, as amended, provides for indemnification of our directors and officers of the registrant to the fullest extent permitted by the DGCL. Our Second Amended and Restated By-Laws provides that we will generally indemnify our directors, officers, employees or agents to the fullest extent permitted by the law against all losses, claims, damages or similar events. We have obtained liability insurance for each director and officer for certain losses arising from claims or charges made against them while acting in their capacities as directors or officers of our company.

Item 15. Recent Sales of Unregistered Securities.

On July 24, 2009, we raised gross proceeds of \$1,251,000 through the private placement to eight accredited investors of an aggregate of 67,258 shares of our common stock and warrants to purchase an aggregate of 33,629 shares of our

common stock, representing 50% of the shares of common stock purchased by each investor. We sold the shares to investors at a price per share equal to \$18.60. The warrants have an exercise price of \$22.40, are exercisable immediately and will terminate on July 24, 2014.

On March 10, 2011, we completed a rights offering and private placement that together resulted in gross proceeds of approximately \$3.2 million and estimated net proceeds of approximately \$2.3 million to the Company after deducting the payments to Lambda Investors and after estimated expenses of the rights offering. In the rights offering, we sold 4,964,854 units at \$0.40 per unit for gross proceeds of approximately \$2.0 million, resulting in the issuance of 4,964,854 shares of common stock and warrants to purchase an aggregate of 4,590,171 shares of common stock. The warrants expire on March 10, 2016 and have an exercise price of \$0.40 per share. All amounts are reported on a post-reverse stock split basis.

Based upon the completion of the rights offering Lambda Investors purchased in a private placement 3,009,711 units at a per unit purchase price of \$0.40 for aggregate gross proceeds of approximately

II-1

TABLE OF CONTENTS

\$1.2 million, pursuant to a purchase agreement between Nephros and Lambda Investors. Each unit consisted of one share of common stock and a warrant to purchase 0.924532845 shares of common stock at an exercise price of \$0.40 per share for a period of five years following the issue date of the warrant, resulting in Lambda Investors acquiring 3,009,711 shares of common stock and a warrant to purchase 2,782,577 shares of common stock. All amounts are reported on a post-reverse stock split basis. Net proceeds, after deducting the aggregate of \$666,650 in payments due Lambda Investors were approximately \$537,000.

Concurrently with its 2011 Offering, Nephros entered into an Exchange Agreement with each of Southpaw Credit Opportunity Master Fund LP, 3V Capital Master Fund Ltd, Distressed/High Yield Trading Opportunities, Ltd., Kudu Partners, L.P. and LJHS Company (collectively, the Exchange Investors and together with the New Investors, the Investors), pursuant to which the Exchange Investors agreed to exchange the principal and accrued but unpaid interest in an aggregate amount of approximately \$5.6 million under the 6% Secured Convertible Notes due 2012 (Old Notes) of Nephros, for new Series B 10% Secured Convertible Notes due 2008 in an aggregate principal amount of \$5.3 million (the Exchange Notes). All principal and accrued but unpaid interest under the New Notes automatically converted into (i) an aggregate of 912,756 shares of our common stock, par value \$0.001 per share at a conversion price per share equal to \$14.12 and (ii) in the case of Purchased Notes, but not Exchange Notes, Class D Warrants to purchase an aggregate of 455,628 shares of common stock with an exercise price per share equal to \$14.12.

In 2011, Lambda Investors LLC committed to purchase, through a private placement evidenced by a purchase agreement, 3,009,711 Units, which amount equals the number of Units that would otherwise be available for purchase by Lambda Investors pursuant to the exercise of its basic subscription privilege, at the rights offering subscription price of \$0.40 per Unit, so long as certain conditions were met, including that stockholders not affiliated with Lambda Investors subscribe for at least 4,375,000 of the Units offered in the rights offering. In addition, under the purchase agreement, Lambda Investors had the right to purchase, at the rights offering subscription price, that number of Units that would otherwise be available for purchase by Lambda Investors pursuant to its over-subscription privilege in the event our other stockholders did not exercise their basic subscription privileges in full and Lambda Investors purchases 3,009,711 Units under the purchase agreement. Lambda Investors did not receive any compensation for its purchase commitment.

The sales of the securities described above were not registered under the Securities Act because they were made in transactions exempt from registration under Section 4(2) of the Securities Act.

TABLE OF CONTENTS

Item 16. Exhibits

(a) *Exhibits.* The following exhibits are filed as part of this registration statement:.

| Exhibit No. | Description |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.1 | Fourth Amended and Restated Certificate of Incorporation of the Registrant. ⁽⁶⁾ |
| 3.2 | Certificate of Amendment to the Fourth Amended and Restated Certificate of Incorporation of the Registrant. ⁽¹⁵⁾ |
| 3.3 | Certificate of Amendment to the Fourth Amended and Restated Certificate of Incorporation of the Registrant. ⁽¹⁵⁾ |
| 3.4 | Certificate of Amendment to the Fourth Amended and Restated Certificate of Incorporation of the Registrant as filed with the Delaware Secretary of State on November 13, 2007. ⁽¹⁶⁾ |
| 3.5 | Certificate of Amendment to the Fourth Amended and Restated Certificate of Incorporation of the Registrant as filed with the Delaware Secretary of State on October 26, 2009. ⁽²⁵⁾ |
| 3.6 | Certificate of Amendment to the Fourth Amended and Restated Certificate of Incorporation of the Registrant as filed with the Delaware Secretary of State on March 10, 2011. ⁽²⁶⁾ |
| 3.7 | Certificate of Amendment to the Fourth Amended and Restated Certificate of Incorporation of the Registrant as filed with the Delaware Secretary of State on March 11, 2011. ⁽²⁶⁾ |
| 3.8 | Second Amended and Restated By-Laws of the Registrant. ⁽¹⁸⁾ |
| 4.1 | Specimen of Common Stock Certificate of the Registrant. ⁽¹⁾ |
| 4.2 | Form of Underwriter s Warrant ⁽²⁾ |
| 4.3 | Warrant for the purchase of shares of common stock dated January 18, 2006, issued to Marty Steinberg, Esq., as Court-appointed Receiver for Lancer Offshore, Inc. ⁽¹⁹⁾ |
| 4.4 | Form of Series A 10% Secured Convertible Note due 2008 convertible into Common Stock and Warrants. ⁽¹⁷⁾ |
| 4.5 | Form of Series B 10% Secured Convertible Note due 2008 convertible into Common Stock. ⁽¹⁷⁾ |
| 4.6 | Form of Class D Warrant. ⁽¹⁷⁾ |
| 4.7 | Form of Placement Agent Warrant. ⁽¹⁷⁾ |
| 4.8 | Form of Investor Warrant issued on July 24, 2009. ⁽²⁴⁾ |
| 4.9 | Form of Warrant Certificate. ⁽²⁹⁾ |
| 4.10 | Form of Warrant Agreement between Nephros, Inc. and Continental Stock Transfer & Trust Company. ⁽³⁰⁾ |
| 4.11* | Form of Subscription Rights Certificate. |
| 4.12* | Form of Subscription Agent Agreement. |
| 5.1 | Opinion of Day Pitney LLP as to the legality of the securities being registered. |
| 10.1 | Amended and Restated 2000 Nephros Equity Incentive Plan. ⁽¹⁾⁽³⁾ |
| 10.2 | 2004 Nephros Stock Incentive Plan. ⁽¹⁾⁽³⁾ |
| 10.3 | Amendment No. 1 to 2004 Nephros Stock Incentive Plan. ⁽³⁾⁽⁶⁾ |
| 10.4 | Amendment No. 2 to the Nephros, Inc. 2004 Stock Incentive Plan. ⁽¹⁶⁾ |
| 10.5 | Form of Subscription Agreement dated as of June 1997 between the Registrant and each Purchaser of Series A Convertible Preferred Stock. ⁽¹⁾ |
| 10.6 | Amendment and Restatement to Registration Rights Agreement, dated as of May 17, 2000 and amended and restated as of June 26, 2003, between the Registrant and the holders of a majority of Registrable Shares (as defined therein). ⁽²⁾ |
| 10.7 | |

Edgar Filing: NEPHROS INC - Form S-1/A

- Employment Agreement dated as of November 21, 2002 between Norman J. Barta and the Registrant.⁽¹⁾⁽³⁾
- 10.8 Amendment to Employment Agreement dated as of March 17, 2003 between Norman J. Barta and the Registrant.⁽¹⁾⁽³⁾
- 10.9 Amendment to Employment Agreement dated as of May 31, 2004 between Norman J. Barta and the Registrant.⁽¹⁾⁽³⁾

II-3

TABLE OF CONTENTS

| Exhibit No. | Description |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.10 | Employment Agreement effective as of July 1, 2007 between Nephros, Inc. and Norman J. Barta. ⁽¹⁶⁾ |
| 10.11 | Form of Employee Patent and Confidential Information Agreement. ⁽¹⁾ |
| 10.12 | Form of Employee Confidentiality Agreement. ⁽¹⁾ |
| 10.13 | Settlement Agreement and Mutual Release dated June 19, 2002 between Plexus Services Corp. and the Registrant. ⁽¹⁾ |
| 10.14 | Settlement Agreement dated as of January 31, 2003 between Lancer Offshore, Inc. and the Registrant. ⁽¹⁾ |
| 10.15 | Settlement Agreement dated as of February 13, 2003 between Hermitage Capital Corporation and the Registrant. ⁽¹⁾ |
| 10.16 | Supply Agreement between Nephros, Inc. and Membrana GmbH, dated as of December 17, 2003. ⁽²⁾⁽⁴⁾ |
| 10.17 | Amended Supply Agreement between Nephros, Inc. and Membrana GmbH dated as of June 16, 2005. ⁽⁴⁾⁽⁸⁾ |
| 10.18 | Manufacturing and Supply Agreement between Nephros, Inc. and Medica s.r.l., dated as of May 12, 2003. ⁽¹⁾⁽⁴⁾ |
| 10.19 | Manufacturing and Supply Agreement between Nephros, Inc. and Medica s.r.l., dated as of March 22, 2005. Supersedes prior Agreement dated May 12, 2003. ⁽⁴⁾⁽⁹⁾ |
| 10.20 | HDF-Cartridge License Agreement dated as of March 2, 2005 between Nephros, Inc. and Asahi Kasei Medical Co., Ltd. ⁽⁵⁾ |
| 10.21 | Subscription Agreement dated as of March 2, 2005 between Nephros, Inc. and Asahi Kasei Medical Co., Ltd. ⁽⁵⁾ |
| 10.22 | Non-employee Director Compensation Summary. ⁽³⁾⁽⁷⁾ |
| 10.23 | Named Executive Officer Summary of Changes to Compensation. ⁽³⁾⁽⁷⁾ |
| 10.24 | Stipulation of Settlement Agreement between Lancer Offshore, Inc. and Nephros, Inc. approved on November 18, 2005. ⁽⁹⁾ |
| 10.25 | Consulting Agreement, dated as of January 11, 2006, between the Company and Bruce Prashker. ⁽³⁾⁽⁹⁾ |
| 10.26 | Summary of Changes to Chief Executive Officer's Compensation. ⁽³⁾⁽⁹⁾ |
| 10.27 | Offer of Employment Agreement, dated as of February 24, 2006, between the Company and Mark W. Lerner. ⁽³⁾⁽⁹⁾ |
| 10.28 | Form of 6% Secured Convertible Note due 2012 for June 1, 2006 Investors. ⁽¹⁰⁾ |
| 10.29 | Form of Common Stock Purchase Warrant. ⁽¹⁰⁾ |
| 10.30 | Form of Subscription Agreement, dated as of June 1, 2006. ⁽¹⁰⁾ |
| 10.31 | Form of Registration Rights Agreement, dated as of June 1, 2006. ⁽¹⁰⁾ |
| 10.32 | Form of 6% Secured Convertible Note due 2012 for June 30, 2006 Investors. ⁽¹¹⁾ |
| 10.33 | Form of Subscription Agreement, dated as of June 30, 2006. ⁽¹¹⁾ |
| 10.34 | Employment Agreement between Nephros, Inc. and William J. Fox, entered into on August 2, 2006. ⁽³⁾⁽¹²⁾ |
| 10.35 | Addendum to Commercial Contract between Nephros, Inc. and Bellco S.p.A, effective as of January 1, 2007. ⁽⁴⁾⁽¹³⁾ |
| 10.36 | Form of Subscription Agreement between Nephros and Subscriber. ⁽¹⁷⁾ |
| 10.37 | Exchange Agreement, dated as of September 19, 2007, between Nephros and the Holders. ⁽¹⁷⁾ |
| 10.38 | Registration Rights Agreement, dated as of September 19, 2007, among Nephros and the Holders. ⁽¹⁷⁾ |

10.39 Investor Rights Agreement, dated as of September 19, 2007, among Nephros and the Covered Holders as defined therein.⁽¹⁷⁾

II-4

TABLE OF CONTENTS

| Exhibit No. | Description |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.40 | Placement Agent Agreement, dated as of September 18, 2007, among Nephros, NSC and Dinosaur. ⁽¹⁷⁾ |
| 10.41 | License Agreement, dated October 1, 2007, between the Trustees of Columbia University in the City of New York, and Nephros. ⁽¹⁹⁾ |
| 10.42 | Employment Agreement, dated as of April 1, 2008, between Nephros, Inc. and Gerald Kochanski. ⁽³⁾⁽²⁰⁾ |
| 10.43 | Separation Agreement and Release, dated as of April 28, 2008, between Nephros, Inc. and Mark W. Lerner. ⁽³⁾⁽²⁰⁾ |
| 10.44 | Separation Agreement and Release, dated as of September 15, 2008, between Nephros, Inc. and Norman J. Barta. ⁽³⁾⁽²¹⁾ |
| 10.45 | Employment Agreement, dated as of September 15, 2008, between Nephros, Inc. and Ernest A. Elgin III. ⁽³⁾⁽²¹⁾ |
| 10.46 | Lease Agreement between Nephros, Inc. and 41 Grand Avenue, LLC dated as of November 20, 2008. ⁽²²⁾ |
| 10.47 | Distribution Agreement between Nephros, Inc. and OLS, dated as of November 26, 2008. ⁽²³⁾ |
| 10.48 | Lease Agreement between Nephros International LTD and Coldwell Banker Penrose & O Sullivan dated November 30, 2008. ⁽²³⁾ |
| 10.49 | Distribution Agreement between Nephros, Inc. and Aqua Sciences, Inc., dated as of December 3, 2008. ⁽²³⁾ |
| 10.50 | Sales Management Agreement between Nephros, Inc. and Steve Adler, dated as of December 16, 2008. ⁽³⁾⁽²³⁾ |
| 10.51 | Amendment No. 3 to the Nephros, Inc. 2004 Stock Incentive Plan. ⁽³⁾⁽²³⁾ |
| 10.52 | Form of Subscription Agreement between Nephros, Inc. and various investors, dated July 24, 2009. ⁽²⁴⁾ |
| 10.53 | Consulting Agreement between Nephros, Inc. and John Shallman, dated as of January 2, 2009. ⁽²⁷⁾ |
| 10.54 | Authorized Representative Services Agreement between Nephros, Inc. and Donawa Lifescience Consulting Srl, dated as of June 1, 2009. ⁽²⁷⁾ |
| 10.55 | Consulting Agreement between Nephros, Inc. and Barry A. Solomon, PhD., dated as of December 8, 2009. ⁽²⁷⁾ |
| 10.56 | Separation, Release and Consulting Agreement between Nephros, Inc. and Ernest A. Elgin III. ⁽²⁸⁾ |
| 10.57 | Senior Secured Note dated October 1, 2010 issued to Lambda Investors LLC. ⁽²⁹⁾ |
| 10.58 | Form of Registration Rights Agreement, dated as of September 30, 2010, by and between the Registrant and Lambda Investors LLC. ⁽²⁹⁾ |
| 10.59 | Purchase Agreement, dated as of October 1, 2010, by and between the Registrant and Lambda Investors LLC. ⁽³¹⁾ |
| 10.60 | Amendment No. 4 to the Nephros, Inc. 2004 Stock Incentive Plan. ⁽³⁾⁽³²⁾ |
| 10.61 | Employment Agreement between Nephros, Inc. and Gerald J. Kochanski dated April 1, 2011. ⁽³⁾⁽³³⁾ |
| 10.62 | License Agreement, entered into as of July 1, 2011 by and between Nephros, Inc. and Bellco S.r.l. ⁽³⁴⁾ |
| 10.63 | Letter Agreement, dated June 27, 2011, between Nephros, Inc. and DHR International, Inc., entered into as of July 25, 2011. ⁽³⁵⁾ |
| 10.64 | |

Edgar Filing: NEPHROS INC - Form S-1/A

- License and Supply Agreement dated as of April 23, 2012 between Nephros, Inc. and Medica S.p.A.⁽¹⁴⁾
- 10.65 Employment Agreement dated as of April 20, 2012 between Nephros, Inc. and John C. Houghton.⁽¹⁴⁾
- 10.66 Non-qualified Stock Option Agreement made as of July 3, 2012 by Nephros, Inc. and John C. Houghton⁽³⁷⁾⁽³⁾

II-5

TABLE OF CONTENTS

| Exhibit No. | Description |
|-------------|--------------------------------------------------------------------------------------------------------------------------|
| 10.67 | Senior Secured Note, dated February 4, 2013, issued to Lambda Investors LLC. |
| 10.68 | Registration Rights Agreement, dated February 4, 2013, by and between the Registrant and Lambda Investors LLC. |
| 10.69 | Security Agreement, dated as of February 4, 2013, by and between the Registrant and Lambda Investors LLC. |
| 10.70 | Intellectual Property Security Agreement, dated as of February 4, 2013, made by the Registrant and Lambda Investors LLC. |
| 14.1 | Code of Ethics and Business Conduct, as amended on April 2, 2007. ⁽³⁶⁾ |
| 21.1 | Subsidiaries of Registrant. ⁽¹³⁾ |
| 23.1* | Consent of Rothstein Kass, Independent Registered Public Accounting Firm. |
| 23.2 | Consent of Day Pitney LLP (contained in Exhibit 5.1). |
| 24.1 | Power of Attorney (included on the signature page). |
| 99.1* | Form of Instructions for Use of Subscription Rights Certificates. |
| 99.2* | Form of Notice of Guaranteed Delivery. |
| 99.3* | Form of Letter to Stockholders and/or Warrantholders from the Company. |
| 99.4* | Form of Letter to Nominee Holders whose Clients are Beneficial Holders. |
| 99.5* | Form of Letter to Clients of Nominee Holders. |
| 99.6* | Form of Nominee Holder Certification. |
| 99.7* | Form of Beneficial Owner Election. |
| 101* | Interactive Data File. |

*

Filed herewith.

Previously filed.

- (1) Incorporated by reference to Nephros, Inc.'s Amendment No. 1 to Registration Statement on Form S-1/A (Reg. No. 333-116162), filed with the Securities and Exchange Commission on July 20, 2004.
- (2) Incorporated by reference to Nephros, Inc.'s Amendment No. 2 to Registration Statement on Form S-1/A (Reg. No. 333-116162), filed with the Securities and Exchange Commission on August 26, 2004.
- (3) Management contract or compensatory plan arrangement.
- (4) Portions omitted pursuant to a request for confidential treatment.
- (5) Incorporated by reference to Nephros, Inc.'s Current Report on Form 8-K, filed with the Securities and Exchange Commission on March 3, 2005 (SEC File No. 001-32288).
- (6) Incorporated by reference to Nephros, Inc.'s Registration Statement on Form S-8 (Reg. No. 333-127264), as filed with the Securities and Exchange Commission on August 5, 2005.
- (7) Incorporated by reference to Nephros, Inc.'s Quarterly Report on Form 10-QSB, filed with the Securities and Exchange Commission on May 16, 2005 (SEC File No. 001-32288).
- (8) Incorporated by reference to Nephros, Inc.'s Quarterly Report on Form 10-QSB, filed with the Securities and Exchange Commission on August 15, 2005 (SEC File No. 001-32288).
- (9) Incorporated by reference to Nephros, Inc.'s Annual Report on Form 10-KSB, filed with the Securities and Exchange Commission on April 20, 2006 (SEC File No. 001-32288).
- (10) Incorporated by reference to Nephros, Inc.'s Current Report on Form 8-K, filed with the Securities and Exchange Commission on June 2, 2006 (SEC File No. 001-32288).
- (11) Incorporated by reference to Nephros, Inc.'s Current Report on Form 8-K, filed with the Securities and Exchange Commission on July 7, 2006 (SEC File No. 001-32288).
- (12) Incorporated by reference to Nephros, Inc.'s Current Report on Form 8-K, filed with the Securities and Exchange Commission on August 4, 2006 (SEC File No. 001-32288).

(13) Incorporated by reference to Nephros, Inc.'s Annual Report on Form 10-KSB for the year ended December 31, 2006, filed with the Securities and Exchange Commission on April 10, 2007 (SEC File No. 001-32288).
II-6

TABLE OF CONTENTS

- (14) Incorporated by reference to Nephros, Inc. s Current Report on Form 8-K filed with the Securities and Exchange Commission on April 26, 2012.
- (15) Incorporated by reference to Nephros, Inc. s Quarterly Report on Form 10-QSB for the quarter ended June 30, 2007, filed with the Securities and Exchange Commission on August 13, 2007 (SEC File No. 001-32288).
- (16) Incorporated by reference to Nephros, Inc. s Quarterly Report on Form 10-QSB for the quarter ended September 30, 2007, filed with the Securities and Exchange Commission on November 13, 2007 (SEC File No. 001-32288).
- (17) Incorporated by reference to Nephros, Inc. s Current Report on Form 8-K, filed with the Securities and Exchange Commission on September 25, 2007 (SEC File No. 001-32288).
- (18) Incorporated by reference to Nephros, Inc. s Current Report on Form 8-K, filed with the Securities and Exchange Commission on December 3, 2007 (SEC File No. 001-32288).
- (19) Incorporated by reference to Nephros, Inc. s Annual Report on Form 10-KSB for the year ended December 31, 2007, filed with the Securities and Exchange Commission on March 31, 2008.
- (20) Incorporated by reference to Nephros, Inc. s Quarterly Report on Form 10-Q for the quarter ended March 31, 2008, filed with the Securities and Exchange Commission on May 15, 2008.
- (21) Incorporated by reference to Nephros, Inc. s Quarterly Report on Form 10-Q for the quarter ended September 30, 2008, filed with the Securities and Exchange Commission on November 14, 2008.
- (22) Incorporated by reference to Nephros, Inc. s Current Report on Form 8-K filed with the Securities and Exchange Commission on November 20, 2008.
- (23) Incorporated by reference to Nephros, Inc. s Annual Report on Form 10-K for the year ended December 31, 2008, filed with the Securities and Exchange Commission on March 31, 2009.
- (24) Incorporated by reference to Nephros, Inc. s Quarterly Report on Form 10-Q for the quarter ended June 30, 2009, filed with the Securities and Exchange Commission on August 14, 2009.
- (25) Incorporated by reference to Nephros, Inc. s Registration Statement on Form S-1 (Reg. No. 333-162781), filed with the Securities and Exchange Commission on October 30, 2009.
- (26) Incorporated by reference to Nephros, Inc. s Current Report on Form 8-K filed with the Securities and Exchange Commission on March 16, 2011.
- (27) Incorporated by reference to Nephros, Inc. s Annual Report on Form 10-K for the year ended December 31, 2009, filed with the Securities and Exchange Commission April 2, 2010.
- (28) Incorporated by reference to Nephros, Inc. s Current Report on Form 8-K filed with the Securities and Exchange Commission on March 30, 2010.
- (29) Incorporated by reference to Nephros, Inc. s Registration statement on Form S-1 (Reg. No. 333-169728), as filed with the Securities and Exchange Commission on October 1, 2010.
- (30) Incorporated by reference to Nephros, Inc. s Amendment No. 1 to Registration Statement on Form S-1/A (Reg. No. 333-169728) filed with the Securities and Exchange Commission on November 8, 2010.
- (31) Incorporated by reference to Nephros, Inc. s Amendment No. 2 to Registration statement on Form S-1/A (Reg. No. 333-169728), filed with the Securities and Exchange Commission on December 22, 2010.
- (32) Incorporated by reference to Nephros, Inc. s 2011 Proxy Statement (Exhibit A) filed with the Securities and Exchange Commission on December 2, 2010.
- (33) Incorporated by reference to Nephros, Inc. s Current Report on Form 8-K filed with the Securities and Exchange Commission on March 31, 2011.
- (34) Incorporated by reference to Nephros, Inc. s Current Report on Form 8-K filed with the Securities and Exchange Commission on June 27, 2011.
- (35) Incorporated by reference to Nephros, Inc. s Current Report on Form 8-K filed with the Securities and Exchange Commission on July 26, 2011.
- (36) Incorporated by reference to Nephros, Inc. s Current Report on Form 8-K, filed with the Securities and Exchange Commission on April 6, 2007 (SEC File No. 001-32288).
- (37) Incorporated by reference to Nephros, Inc. s Quarterly Report on Form 10-Q for the quarter ended September 30, 2012, filed with the Securities and Exchange Commission on November 9, 2012

TABLE OF CONTENTS

Item 17. Undertakings.

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933 (the Act); To reflect in the prospectus any facts or events arising after the effective date of this registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the Calculation of Registration Fee table in the effective registration statement; and

(ii) To include any material information with respect to the plan of distribution not previously disclosed in this registration statement or any material change to such information in this registration statement.

That, for the purpose of determining any liability under the Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

That, for the purpose of determining liability under the Act to any purchaser, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is a part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5) That, for the purpose of determining liability of the registrant under the Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of an undersigned registrant relating to this offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to this offering prepared by, or on behalf of, the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to this offering containing material information about an undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

II-8

TABLE OF CONTENTS

- (iv) Any other communication that is an offer in this offering made by the undersigned registrant to the purchaser.
The undersigned registrant hereby undertakes to supplement the prospectus, after the expiration of the subscription period, to set forth the results of the subscription offer and the amount of unsubscribed securities to be offered to the public. If any public offering of the securities is to be made on terms differing from those set forth on the cover page of the prospectus, a post-effective amendment will be filed to set forth the terms of such offering.
- (c) Insofar as indemnification for liabilities arising under the Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or
- (h) controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

II-9

TABLE OF CONTENTS

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Amendment No. 1 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized in the City of River Edge, State of New Jersey, on April 8, 2013.

NEPHROS, INC.

Date: April 8, 2013
By: /s/ John C. Houghton
Name: John C. Houghton

Title: President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Amendment No. 1 to the Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

| Signature | Title | Date |
|---------------------------------------------------|--------------------------------------------------------------------------------------|---------------|
| /s/ John C. Houghton John C. Houghton | President and Chief Executive Officer, and Director (Principal Executive Officer) | April 8, 2013 |
| /s/ Gerald J. Kochanski Gerald J. Kochanski | Chief Financial Officer (Principal Financial and Accounting Officer) | April 8, 2013 |
| /s/ Arthur H. Amron* Arthur H. Amron | Director | April 8, 2013 |
| /s/ Lawrence J. Centella* Lawrence J. Centella | Director | April 8, 2013 |
| /s/ Paul A. Mieyal* Paul A. Mieyal | Director | April 8, 2013 |
| /s/ James S. Scibetta* James S. Scibetta | Director | April 8, 2013 |

*By:

/s/ Gerald J. Kochanski
Gerald J. Kochanski
Attorney-in-Fact
