

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549**

FORM 10-K

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

For the fiscal year ended December 31, 2017

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

For the transition period from _____ to _____

Commission File Number 001-32288

NEPHROS, INC.

(Exact name of registrant specified in its charter)

Delaware
(State or Other Jurisdiction of
Incorporation or Organization)

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

380 Lackawanna Place
South Orange, NJ 07079
(Address of Principal Executive Offices)

(201) 343-5202
(Telephone Number, Including Area Code)

Securities Registered Pursuant to Section 12(b) of the Exchange Act: **None**

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

Common Stock, \$.001 par value per share
(Title of Class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes No

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a smaller reporting company, or emerging growth company. See definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

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

Accelerated filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

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

The aggregate market value of the voting stock held by non-affiliates of the registrant, as of June 30, 2017, was approximately \$5,160,000. Such aggregate market value was computed by reference to the closing price of the common stock as reported on the OTCQB Marketplace operated by the OTC Markets Group, Inc., or OTCQB, on June 30, 2017. For purposes of making this calculation only, the registrant has defined affiliates as including only directors and executive officers and shareholders holding greater than 10% of the voting stock of the registrant as of June 30, 2017.

As of February 26, 2018 there were 56,793,267 shares of the registrant's common stock, \$0.001 par value, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Certain portions of the registrant's Proxy Statement (the "2018 Proxy Statement"), which will be filed with the SEC in connection with the 2018 Annual Meeting of Stockholders, are incorporated by reference into Part III of this Form 10-K. The 2018 Proxy Statement will be filed within 120 days of December 31, 2017.

NEPHROS, INC. AND SUBSIDIARY

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FORWARD LOOKING STATEMENTS

Certain statements in this Annual Report on Form 10-K constitute “forward-looking statements”. Such statements include statements regarding the efficacy and intended use of our technologies under development, the timelines and strategy for bringing such products to market, the timeline for regulatory review and approval of our products, the availability of funding sources for continued development of such products, our ability to continue as a going concern 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 similar words. 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 face significant challenges in obtaining market acceptance of our products, which could adversely affect our potential sales and revenues;
- product-related deaths or serious injuries or product malfunctions 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 face potential liability associated with the production, marketing and sale of our products, and the expense of defending against claims of product liability could materially deplete our assets and generate negative publicity, which could impair our reputation;
- to the extent our products or marketing materials are found to violate any provisions of the U.S. Food, Drug and Cosmetic Act (the “FDA Act”) or any other statutes or regulations, then we could be subject to enforcement actions by the U.S. Food and Drug Administration (the “FDA”) or other governmental agencies;
- we may not be able to obtain funding if and when needed or on terms favorable to us in order to continue operations;
- we may not have sufficient capital to successfully implement our business plan;
- 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, manufacturers and distributors;
- 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 us and the risk factors that may affect the realization of forward-looking statements, including the forward-looking statements in this Annual Report on Form 10-K, is set forth in our filings with the U.S. Securities and Exchange Commission (the “SEC”), including our other periodic reports filed with the SEC. We urge investors and security holders 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.

PART I

Item 1. Business

Overview

We are a commercial stage medical device and commercial products company that develops and sells high performance liquid purification filters and hemodiafiltration (“HDF”) systems. Our filters, which are generally classified as ultrafilters, are primarily used in hospitals for the prevention of infection from water-borne pathogens, such as legionella and pseudomonas, and in dialysis centers for the removal of biological contaminants from water and bicarbonate concentrate. Because our ultrafilters capture contaminants as small as 0.005 microns in size, they minimize exposure to a wide variety of bacteria, viruses, fungi, parasites, and endotoxins.

Our OLpūr H2H Hemodiafiltration System, used in conjunction with a standard hemodialysis machine, is the only FDA 510(k) cleared medical device that enables nephrologists to provide hemodiafiltration treatment to patients with end stage renal disease (“ESRD”). Additionally, we sell hemodiafilters, which serve the same purpose as dialyzers in a hemodialysis treatment, and other disposables used in the hemodiafiltration treatment process.

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. We have extended our filtration technologies to meet the demand for liquid purification in other areas, in particular water purification.

Our Products

Presently, we produce two core product lines: water ultrafiltration products and HDF systems. Our ultrafiltration technology was originally developed as a component of the HDF system. HDF is a long-term investment that we expect to grow as we develop a second-generation system and as the U.S. dialysis market reimbursement environment migrates to full capitation. Water ultrafiltration is our primary near-term market opportunity, which we expect to continue to grow rapidly as we launch new products and further penetrate the market.

Ultrafiltration Products

Our ultrafilters are used in both medical and non-medical applications. Like competing filters, they purify by passing liquids through the pores of polysulfone hollow fiber. Our filters’ pores are significantly smaller than those of competing products, resulting in highly effective elimination of water-borne pathogens, including legionella bacteria (the cause of Legionnaires disease). Additionally, the fiber structure and pore density in our hollow fiber enables significantly higher flow rates than in other polysulfone hollow fiber.

During 2016 and 2017, we developed several ultrafilter cartridge products that are designed to fit directly into existing water filtration systems, eliminating the need for plumbing modifications during installation and replacement. These “plug and play” systems are an important part of our strategy to penetrate the water filtration market.

Our sales strategy is a combination of direct selling to end customers and indirect selling through value-added resellers (“VARs”). Leveraging VARs has enabled us to expand rapidly our access to target customers in the medical market without significant sales staff expansion. In addition, while we are currently focused in medical markets, the VARs that support these customers also support a wide variety of commercial and industrial customers. We believe that our VAR relationships will facilitate growth in filter sales outside of the medical industry.

Target Markets

Our ultrafiltration products currently target the following markets:

- Hospitals and Other Healthcare Facilities: Filtration of water for washing and drinking as an aid in infection control. The filters produce water that is suitable for wound cleansing, cleaning of equipment used in medical procedures, and washing of surgeons’ hands.
- Dialysis Centers: Filtration of water or bicarbonate concentrate used in hemodialysis.
- Commercial Facilities: Filtration of water for washing and drinking, including use in ice machines and soft drink dispensers.
- Military and Outdoor Recreation: Individual water purification devices used by soldiers and backpackers to produce drinking water in the field, as well as filters customized to remote water processing systems.

Hospitals and Other Healthcare Facilities. According to the American Hospital Association, approximately 5,700 hospitals, with approximately 915,000 beds, treated over 35 million patients in the United States in 2013. The U.S. Centers for Disease Control and Prevention estimates that healthcare associated infections (“HAI”) occurred in approximately 1 out of every 25 hospital patients, or about 1.4 million patients in 2013. HAIs affect patients in hospitals or other healthcare facilities, and are not present or incubating at the time of admission. They also include infections acquired by patients in the hospital or facility, but appearing after discharge, and occupational infections among staff. Many HAIs are caused by waterborne bacteria and viruses that can thrive in aging or complex plumbing systems often found in healthcare facilities.

The Affordable Care Act, 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. As a consequence, hospitals and other healthcare facilities are proactively implementing strategies to reduce HAI potential. Our ultrafilters are designed to aid in infection control in the hospital and healthcare setting by treating facility water at the points of delivery, such as ice machines, sinks and showers.

In June 2017, the Center for Clinical Standards and Quality at the Centers for Medicare and Medicaid Services (“CMS”) announced the addition of requirements for facilities to develop policies and procedures that inhibit the growth and spread of legionella and other opportunistic pathogens in building water systems. Going forward, CMS surveyors will review policies, procedures, and reports documenting water management implementation results to verify that facilities are compliant with these requirements. We believe that these CMS regulations may have a positive impact on the sale of our HAI-inhibiting ultrafilters.

We currently have FDA 510(k) clearance on the following portfolio of medical device products for use in the hospital setting to aid in infection control:

- The DSU H is an in-line, 0.005 micron ultrafilter that provides dual-stage protection from water borne pathogens. The DSU H is primarily used to filter potable water feeding ice machines, sinks, and medical equipment, such as endoscope washers and surgical room humidifiers. The DSU H has an up to 6 month product life when used in a hospital setting.
- The SSU H is an in-line, 0.005 micron ultrafilter that provides single-stage protection from water borne pathogens. The SSU H is primarily used to filter potable water feeding sinks, showers and medical equipment. The SSU H has an up to 3 month product life when used in a hospital setting.
- The S100 is a point-of-use, 0.01 micron microfilter that provides protection from water borne pathogens. The S100 is primarily used to filter potable water feeding sinks and showers. The S100 has an up to 3 month product life when used in a hospital setting.
- The HydraGuard™ and HydraGuard™ - Flush are 0.005 micron cartridge ultrafilters that provide single-stage protection from water borne pathogens. The HydraGuard™ ultrafilters are primarily used to filter potable water feeding ice machines and medical equipment, such as endoscope washers and surgical room humidifiers. The HydraGuard™ has an up to 6 month product life and the HydraGuard™ - Flush has an up to 12 month product life when used in a hospital setting.

We received FDA 510(k) clearance to market the HydraGuard™ in December 2016 and began shipping it in July 2017. We began shipping the HydraGuard™ - Flush in September 2017. The DSU, SSU, and S100 products were 510(k)-cleared in prior years.

The complete hospital infection control product line, including in-line, point-of-use, and cartridge filters, can be viewed on our website at <http://www.nephros.com/infection-control/>. We are not including the information on our website as a part of, nor incorporating it by reference, into this Annual Report on Form 10-K.

Dialysis Centers - Water/Bicarbonate. To perform hemodialysis, all dialysis clinics have dedicated water purification systems to produce water and bicarbonate concentrate, two essential ingredients for making dialysate, the liquid that removes waste material from the blood. According to the American Journal of Kidney Diseases, there are approximately 6,300 dialysis clinics in the United States servicing approximately 430,000 patients annually. We estimate that there are over 100,000 hemodialysis machines in operation in the United States.

Medicare is the main payer for dialysis treatment in the United States. To be eligible for Medicare reimbursement, dialysis centers must meet the minimum standards for water and bicarbonate concentrate 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.

We currently have FDA 510(k) clearance on the following portfolio of medical device products for use in the dialysis setting to aid in bacteria, virus, and endotoxin retention:

- The DSU D, SSU D and SSUmini are in-line, 0.005 micron ultrafilters that provide protection from bacteria, viruses, and endotoxins. All of these products have an up to 12 month product life in the dialysis setting, and are used to filter water following treatment with a reverse osmosis (“RO”) system, and to filter bicarbonate concentrate. These ultrafilters are primarily used in the water lines and bicarbonate concentrate lines leading into dialysis machines, and as a polish filter for portable RO machines.
- The EndoPur is a 0.005 micron cartridge ultrafilter that provides single-stage protection from bacteria, viruses, and endotoxins. The EndoPur has an up to 12 month product life in the dialysis setting, and is used to filter water following treatment with an RO system. More specifically, the EndoPur is used primarily to filter water in large RO systems designed to provide ultrapure water to an entire dialysis clinic. The EndoPur is available in 10”, 20”, and 30” configurations.

The EndoPur is a cartridge-based, “plug and play” market entry that requires no plumbing at installation or replacement. In March 2017, we received FDA 510(k) clearance to market the EndoPur filter. We began shipping the EndoPur 10” filter in July 2017 and the 20” and 30” versions in September 2017.

Commercial and Industrial Facilities. We currently market the following portfolio of proprietary products for use in the commercial, industrial, and food service settings:

- The NanoGuard D is an in-line, 0.005 micron ultrafilter that provides dual-stage retention of any organic or inorganic particle larger than 15,000 Daltons. The NanoGuard D is primarily used to filter potable water feeding ice machines, sinks and equipment that requires or benefits from ultrafiltered water, and filters up to 10,000 gallons of potable water, depending upon the particle load.
- The NanoGuard S is an in-line, 0.005 micron ultrafilter that provides single-stage retention of any organic or inorganic particle larger than 15,000 Daltons. The NanoGuard S is primarily used to filter potable water feeding ice machines, sinks, showers and equipment that requires or benefits from ultrafiltered water, and filters up to 3,000 gallons of potable water, depending upon the particle load.
- The NanoGuard E is a 0.005 micron ultrafilter cartridge that plugs into an Everpure® filter manifold and provides single-stage retention of any organic or inorganic particle larger than 15,000 Daltons. The NanoGuard E is primarily used to filter potable water feeding ice machines, beverage dispensers, and other equipment that requires or benefits from ultrafiltered water, and filters up to 10,000 gallons of potable water, depending upon the particle load.
- The NanoGuard C is a 0.005 micron cartridge ultrafilter that fits with most 10”, 20”, 30” and 40” cartridge housings and provides single-stage retention of any organic or inorganic particle larger than 15,000 Daltons. The NanoGuard C is primarily used to filter potable water feeding ice machines and equipment that requires or benefits from ultrafiltered water, and filters up to 10,000 gallons of potable water per 10” of length, depending upon the particle load.
- The NanoGuard F is a 0.005 micron flushable cartridge ultrafilter, available in 10” or 20” sizes and provides single-stage retention of any organic or inorganic particle larger than 15,000 Daltons. The NanoGuard F is primarily used to filter potable water feeding ice machines, sinks and equipment that requires or benefits from ultrafiltered water. The NanoGuard F has an up to 12 month product life and can filter up to 2.5 gallons per minute per 10” length, depending upon the particle load.

In April 2017, we announced a partnership with WorldWater & Solar Technology to provide ultrafiltration capabilities to their drinking water systems. This partnership centers on our NanoGuard F product line. This partnership is in the early stages of market roll-out.

In the fourth quarter of 2017, we released a lead filtration system that addresses both soluble and particulate lead in potable water, with the ability to treat up to 9,000 gallons of water between filter change-outs. This system is in the early stages of market roll-out.

Military and Outdoor Recreation. We developed our individual water treatment device (“IWTD”) in both in-line and point-of-use configurations. Our IWTD allows a soldier in the field to derive drinking water from any freshwater source. This enables the soldier to remain hydrated, to help maintain mission effectiveness and unit readiness, and to extend mission reach. Our IWTD has been validated by the military to meet the NSF Protocol P248 standard. It has also been approved by the U.S. Army Public Health Command and the U.S. Army Test and Evaluation Command for deployment.

In May 2015, we entered into a Sublicense Agreement with CamelBak Products, LLC (“CamelBak”). Under this Sublicense Agreement, we granted CamelBak an exclusive, non-transferable, worldwide (with the exception of Italy) sublicense and license, in each case solely to market, sell, distribute, import and export the IWTD. In exchange for the rights granted to CamelBak, CamelBak agreed, through December 31, 2022, to pay us a percentage of the gross profit on any sales made to a branch of the U.S. military, subject to certain exceptions, and to pay us a fixed per-unit fee for any other sales made. CamelBak is also required to meet or exceed certain minimum annual fees payable to us, and, if such fees are not met or exceeded, we may convert the exclusive sublicense to a non-exclusive sublicense with respect to non-U.S. military sales. During the years ended December 31, 2017 and December 31, 2016, Camelbak met its minimum fee payments, and we recognized royalty revenue of \$25,000 and \$10,000, respectively, related to this Sublicense Agreement.

HDF Systems

The current standard of care in the United States for patients with chronic renal failure is hemodialysis (“HD”), a process in which toxins are cleared via diffusion. Patients typically receive HD treatments 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 United States 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 more challenging for patients, as it is performed on a daily basis, and typically takes 12-24 hours per treatment.

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 United States, HDF is prevalent in Europe and is performed for a growing number of patients. Clinical experience and literature show the following 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 HD, HDF can be resource-intensive and can require a significant amount of time to deliver one course of treatment.

We originally developed a medical device that enabled a standard HD machine to perform HDF. We refer to our approach as an on-line mid-dilution hemodiafiltration (“mid-dilution HDF”) system. Our original solution included a OLpür H2H Hemodiafiltration Module (“H2H Module”), a OLpür MD 220 Hemodiafilter (“HDF Filter”) and a H2H Substitution Filter (“Dialysate Filter”).

Our H2H Module attaches to a standard HD machine to perform on-line HDF therapy. The HD machine controls and monitors the basic treatment functions, as it would normally when providing HD therapy. The H2H Module is a free-standing, movable device that is placed next to either side of an HD machine. The H2H Module connects to the clinic’s water supply, drain, and electricity.

The H2H Module utilizes the HDF Filter, and is very similar to a typical hollow fiber dialyzer assembled with a single hollow fiber bundle made with a high-flux (or high-permeability) membrane. The fiber bundle is separated into two discrete, but serially connected, blood paths. Dialysate flows in one direction that is counter-current to blood flow in Stage 1 and co-current to blood flow in Stage 2.

In addition to the HDF Filter, the H2H Module also utilizes a Dialysate Filter during patient treatment. The Dialysate Filter is a hollow fiber, ultrafilter device that consists of two sequential (redundant) ultrafiltration stages in a single housing. During on-line HDF with the H2H Module, fresh dialysate is redirected by the H2H Module’s hydraulic (substitution) pump and passed through this dual-stage ultrafilter before being infused as substitution fluid into the extracorporeal circuit. Providing ultrapure dialysate is crucial for the success of on-line HDF treatment.

Our original HDF system conformed with current ANSI/AAMI/ISO standards and was cleared by the FDA for the treatment of patients with chronic renal failure in 2012. To date, our HDF System is the only HDF system cleared by the FDA.

Over the last four years, DaVita Healthcare Partners, the Renal Research Institute (a research division of Fresenius Medical Care), and Vanderbilt University conducted post-market evaluations of our hemodiafiltration system in their clinics. We gathered direct feedback from these evaluations to develop a better understanding of how our system best fits into the current clinical and economic ESRD treatment paradigm. The ultimate goal of the evaluations was to better understand the potential for HDF, in the U.S. clinical setting, to (a) improve the quality of life for the patient, (b) reduce overall expenditure compared to other dialysis modalities, (c) minimize the impact on nurse work flow at the clinic, and (d) demonstrate the pharmacoeconomic benefit of the HDF technology to the U.S. healthcare system, as has been done in Europe with other HDF systems. The last evaluation was concluded at Vanderbilt in the first quarter of 2018. When practical, we will work with Vanderbilt to publish observational findings.

Leveraging the learnings from our evaluations, we have initiated the development of the 2nd generation HDF system. We believe that the 2nd generation system, as currently designed, incorporates new features that could enable us to better manufacture at scale, to reduce the per treatment cost of performing HDF, and to better align with current work flow practices, versus our 1st generation HDF system. We filed a provisional patent on our new system design in June 2017. We intend to fund the 2nd generation HDF system as cash flow is available.

Corporate Information

We were incorporated under the laws of the State of Delaware in April 1997. Our principal executive offices are located at 380 Lackawanna Place, South Orange, NJ 07079, 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 consolidated 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 within one year after the date of issuance of these consolidated financial statements. Our consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Our current plans intended to mitigate the conditions noted above anticipate continued revenue growth, increasing gross profit, and improving cash flows from operations for the period of twelve months following the date of issuance of these consolidated financial statements. In addition, we have approximately \$2,194,000 of cash and \$289,000 available under our secured revolving credit facility as of December 31, 2017 to meet our obligations and sustain our operations.

There can be no assurance, however, that these plans will be achieved and reflected in our actual performance, nor that our future cash flows will be sufficient to meet our obligations and commitments. We have incurred significant losses from operations in each quarter since inception. If we are unable to generate sufficient cash flow from operations in the future to meet our operating requirements and other commitments, we will be required to adopt alternatives, such as seeking to raise debt or equity capital, curtailing our planned activities, reducing operating expenses or ceasing 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 our capital requirements.

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 OLpür MD190 and MD220, on June 27, 2011, we entered into a license agreement, effective July 1, 2011, as amended by the first amendment dated February 19, 2014, with Bellco S.r.l. (“Bellco”), an Italy-based supplier of hemodialysis and intensive care products, for the manufacturing, marketing and sale of our patented mid-dilution dialysis filters. Pursuant to the first amendment, we and Bellco agreed to extend the term of the License Agreement from December 31, 2016 to December 31, 2021. In addition, under the agreement, as amended by the first amendment, we granted Bellco a license to manufacture, market and sell these products under its own name, label and CE mark in Italy, France, Belgium, Spain, Canada, Denmark, Finland, Norway and Sweden on an exclusive basis, and to do the same on a non-exclusive basis in the United Kingdom, Greece, Brazil, China, Korea, Mexico and the Netherlands and, upon our written approval, other European countries where we do not sell these products, as well as non-European countries.

On April 23, 2012, we entered into a license and supply agreement with Medica S.p.A., 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 and for an exclusive supply arrangement for the filtration products. Under the 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 agreement. In addition, we granted to Medica an exclusive license under our intellectual property to make the filtration products during the term of the agreement. In exchange for the rights granted, we agreed to make minimum annual aggregate purchases from Medica throughout the term of the agreement. As part of the agreement, we granted to Medica 300,000 options to purchase our common stock, which vested over the first three years of the agreement. We currently have an understanding with Medica whereby we have agreed to pay interest to Medica at a 12% annual rate calculated on the principal amount of any outstanding invoices that are not paid pursuant to the original payment terms.

On May 5, 2017, we entered into a third amendment to the agreement with Medica. Pursuant to the third amendment, Medica expanded the products covered by the original agreement to include both certain filtration products based on Medica’s proprietary Versatile microfiber technology and certain filtration products based on Medica’s proprietary Medisulfone ultrafiltration technology. The third amendment also limits the territory in which Medica granted us an exclusive license, with right of sublicense, to market, promote, distribute, offer for sale, and sell the filtration products to North America, Central America, Columbia, Venezuela, Chile, Ecuador, Peru, Ireland, the United Kingdom, Australia and New Zealand. Our multinational distributors retain the right to market certain of the products worldwide, other than in Italy, on a non-exclusive basis. On September 26, 2017, we entered into a fourth amendment to the agreement with Medica, which extended the term of the agreement from December 31, 2022 to December 31, 2025.

Sales and Marketing

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

Our New Jersey office oversees global sales and marketing activity of our ultrafilter products. We work with multiple distributors for our ultrafilter products in the hospital and dialysis water markets. In the food service market, Biocon 1 LLC has the exclusive right to distribute our custom filter cartridge developed for the AETHER® Water System. For each prospective market for our ultrafilter products, we are pursuing alliance opportunities for joint product development and/or distribution. Our ultrafilter manufacturer in Europe shares certain intellectual property rights with us for one of our Dual Stage Ultrafilter designs.

Research and Development

Our research and development efforts continue on several fronts directly related to our current product lines. For the ultrafiltration systems business, we are continually working with existing and potential distributors of ultrafilter products to develop solutions to meet customer needs. For the HDF systems business, we are working with our current customers to develop a 2nd generation HDF system. For the years ended December 31, 2017 and 2016, we spent approximately \$1,002,000 and \$1,079,000, respectively, on research and development activities.

Major Customers

- For the years ended December 31, 2017 and 2016, four customers accounted for 50% and 55%, respectively, of our revenues.
- As of December 31, 2017 and 2016, three customers accounted for 38% and 47%, respectively, of our 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 (now wholly-owned by Danaher Corporation), which manufactures end-point water filtration systems, as well as 3M, Siemens and Everpure®. 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 goals of 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 Baxter International, Inc., currently two of the primary machine manufacturers in hemodialysis. Fresenius Medical Care AG and Baxter International, Inc. also manufacture HDF machines that are not currently approved in the United States.

The markets in which we sell our dialysis products are highly competitive. Our competitors in the sale of hemodialysis products include 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:

- continuing our efforts to develop, manufacture, and sell products which, when compared to competitive 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 our agreement with Bellco 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 apply 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, 2017, we had twelve U.S. patents, four Mexican patents, one South Korean patent, two Chinese patents, two French patents, two German patents, one Israeli patent, two Italian patents, one Spanish patent, two United Kingdom patents, one Canadian patent, one Australian patent, one Swedish patent, and one patent in the Netherlands. In addition, we have two pending patent applications in the U.S. and one in Canada. Our pending patent applications relate to a range of filter technologies, including cartridge configurations, cartridge assembly, substitution fluid systems, and methods to enhance and ensure performance.

Trademarks

As of December 31, 2017, we secured registrations of the trademarks H2H and OLPur in the European Union and OLPur in the United States. We have also filed trademark applications for HYDRAGUARD, NANOGUARD, and ENDOPUR in the United States, and have a trademark registration in the European Union for Nephros Hydraguard.

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 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 ("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 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.

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

In April 2012, we announced that 510(k) clearance was received from the FDA to market the OLPür H2H Module and OLPür MD 220 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.

In October 2014, we announced that we received 510(k) clearance from the FDA to market our DSU H and SSU H ultrafilters; in April 2016, we announced that we received 510(k) clearance from the FDA to market our S100 point-of-use filter; in December 2016, we announced that we received 510(k) clearance from the FDA to market our HydraGuard 10” ultrafilter; and in March 2017, we announced that we received 510(k) clearance from the FDA to market our EndoPur 10” ultrafilter.

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
- 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 nation 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 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 covered products under its own name, label and CE mark in the stated territory. In addition, if requested by us, Bellco will be required to sell the covered products to our distributors in the stated territory.

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 that 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 OLPür MD220 Hemodiafilter and our DSU, respectively, for marketing in Canada. Other than the Canadian approval of our OLPür MD220 Hemodiafilter and DSU products, we have not obtained any regulatory approvals to sell any of our products outside of the United States and the European Union 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, including reimbursement decision-making, 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 our 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 \$2 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, 2017, we employed a total of 15 full-time employees, including 3 employed in sales/marketing/customer support, 5 in general and administrative, and 7 in research and development.

Item 1A. Risk Factors

Risks Related to Our Company

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.

The accompanying consolidated 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 within one year after the date of issuance of these consolidated financial statements. Our consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

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

As of December 31, 2017, we had an accumulated deficit of approximately \$121,106,000 as a result of historical operating losses. While we believe that the revenues following the launch of our new products will help us achieve profitability, there can be no guarantee of this. We may continue to incur additional losses in the future depending on the timing and marketplace acceptance of our products and as a result of operating expenses being higher than our gross margin from product sales. 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 that exceed our per unit costs; and
- our ability to continue to develop products and maintain a competitive advantage in our industry.

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 (either with respect to our POU or DSU ultrafilters or otherwise) 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.

We cannot assure you that our products will be safe or that there will not be product-related deaths, serious injuries or product malfunctions. Further, we are required under applicable law to report any circumstances relating to our medically approved products that could result in deaths or serious injuries. These circumstances 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 products will prove to be safe or that there will not be product-related deaths or serious injuries or product malfunctions, which could trigger recalls, class action lawsuits and other events that could cause us to incur significant expenses, limit our ability to market our products and generate revenues from such products or cause us reputational harm. Under the FDC Act, we are required to submit medical device reports (“MDRs”) to the FDA to report device-related deaths, serious injuries and malfunctions of medically approved products 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 market and sell our 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 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. Voluntary recalls could subject us to claims or proceedings by consumers, the FDA or other regulatory authorities which may adversely impact our sales and revenues. 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.

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 (“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.

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

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.

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 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. The extent to which we fail to successfully commercialize our products will limit our ability to 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. 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.

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 Européenne ("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 OLpür MD 220 Hemodiafilter and our DSU. We have not yet obtained the CE mark for any of our other products. On April 30, 2012, we announced that we received clearance from the FDA to market our OLpür MD220 Hemodiafilter and OLpür H2H Module for use with a hemodialysis machine that provides ultrapure dialysate in accordance with current ANSI/AAMI/ISO standards, for the treatment of chronic renal failure patients. We have not begun to broadly market these products and are actively seeking a commercialization partner in the United States.

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.

Over time, 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 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 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.

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

The recently passed Tax Cuts and Jobs Act of 2017 may have a material impact on our financial condition and results of operations.

The Tax Cuts and Jobs Act of 2017 (the "Tax Act") was signed into law on December 22, 2017. The Tax Act made numerous changes to U.S. federal corporate tax law and is expected to reduce our effective tax rate for fiscal year 2018 and future periods. Effective January 1, 2018, the Tax Act lowers the U.S. corporate tax rate from 35% to 21% and prompts various other changes to U.S. federal corporate tax law. We are currently assessing the impact the Tax Act will have on our deferred tax assets or other areas with our professional advisors and until our analysis is complete, the full impact the Tax Act will have on us in future periods is uncertain and may adversely affect our financial condition and results of operations.

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 12 granted U.S. patents will expire at various times from 2018 to 2027, 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 for or obtain additional 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.

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 regulations, which include requirements for good manufacturing practices. 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 OLpür MD HDF 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.

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.

If we are unable to maintain effective internal control over financial reporting, our ability to produce accurate financial statements on a timely basis could be impaired and the market price of our securities may be negatively affected.

Section 404 of the Sarbanes-Oxley Act of 2002 requires us to maintain internal control over financial reporting and to report any material weaknesses in such internal control. A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of annual or interim financial statements will not be prevented or detected and corrected on a timely basis. We also are required to furnish a report by management on the effectiveness of our internal control over financial reporting. We perform system and process evaluation and testing of our internal controls over financial reporting to allow management to prepare and furnish such a report.

Risks Related to Owning Our Common Stock

There currently is a limited trading market for our common stock.

We do not currently meet all of the requirements for initial listing of our common stock on a registered stock exchange. Our common stock is quoted on the OTCQB. Trading in our common stock on the OTCQB 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 and restricted stock 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, options and warrants could affect the rights of our stockholders, could reduce the market price 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.

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

During the two years ended December 31, 2017, our common stock has traded at prices ranging from a high of \$0.60 to a low of \$0.18 per share. 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;
- 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 medical technology 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 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;
- 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.

Our directors, executive officers and Lambda Investors LLC (“Lambda”) 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 matters.

As of February 26, 2018, Lambda, our largest stockholder, beneficially owned approximately 54% of our outstanding common stock. As a result of this ownership, Lambda has the ability to exert significant influence over our policies and affairs, including the election of directors. Lambda, 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, 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 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 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.

Item 1B. Unresolved Staff Comments

Not required.

Item 2. Properties

Our U.S. facilities are located at 380 Lackawanna Place, South Orange, New Jersey 07079 and consist of approximately 7,700 square feet of space. The current rental agreement expires in November 2022 with a monthly cost of approximately \$11,000. We use these facilities to house our corporate headquarters and research facilities.

Our office in Europe is currently located at Ulysses House, Foley Street, Dublin, Ireland. The lease agreement was entered into on August 1, 2017 and is for a twelve month term.

We believe our current facilities will be adequate to meet our needs. We do not own any real property for use in our operation or otherwise.

Item 3. 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.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

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

Our common stock is quoted on the OTCQB Marketplace operated by the OTC Markets Group, Inc., or OTCQB, 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 OTCQB for each quarter listed. 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, 2016	\$	0.40	\$	0.22
June 30, 2016	\$	0.57	\$	0.24
September 30, 2016	\$	0.60	\$	0.25
December 31, 2016	\$	0.45	\$	0.26
March 31, 2017	\$	0.60	\$	0.31
June 30, 2017	\$	0.42	\$	0.18
September 30, 2017	\$	0.38	\$	0.18
December 31, 2017	\$	0.55	\$	0.30

As of February 26, 2018, there were approximately 61 holders of record and approximately 2,100 beneficial holders of our common stock.

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.

Recent Sales of Unregistered Securities

Except as previously reported in our Quarterly Reports on Form 10-Q and our Current Reports on Form 8-K, we have not sold any equity security during the year ended December 31, 2017 that was not registered under the Securities Act of 1933, as amended.

Issuer Repurchases of Equity Securities

There were no repurchases of our common stock during the fourth quarter of 2017.

Equity Compensation Plan Information

See Part III, Item 12, under the heading “Equity Compensation Plan Information,” which is incorporated by reference herein.

Item 6. Selected Financial Data

Not required for smaller reporting companies.

Item 7. 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 in Item 1A “Risk Factors.” The following discussion should also be read in conjunction with the consolidated financial statements and notes included herein.

Business Overview

We are a commercial stage medical device and commercial products company that develops and sells high performance liquid purification filters and hemodiafiltration (“HDF”) systems. Our filters, which are generally classified as ultrafilters, are primarily used in hospitals for the prevention of infection from water-borne pathogens, such as legionella and pseudomonas, and in dialysis centers for the removal of biological contaminants from water and bicarbonate concentrate. Because our ultrafilters capture contaminants as small as 0.005 microns in size, they minimize exposure to a wide variety of bacteria, viruses, fungi, parasites, and endotoxins.

Our OLpūr H2H Hemodiafiltration System, used in conjunction with a standard hemodialysis machine, is the only FDA 510(k) cleared medical device that enables nephrologists to provide hemodiafiltration treatment to patients with end stage renal disease (“ESRD”). Additionally, we sell hemodiafilters, which serve the same purpose as dialyzers in a hemodialysis treatment, and other disposables used in the hemodiafiltration treatment process.

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. We have extended our filtration technologies to meet the demand for liquid purification in other areas, in particular water purification.

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;
- 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.

Recent Accounting Pronouncements

Recently Adopted Accounting Pronouncements

In July 2015, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) No. 2015-11, “Simplifying the Measurement of Inventory,” that requires inventory be measured at the lower of cost and net realizable value and options that currently exist for market value be eliminated. The standard defines net realizable value as estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation and is effective for fiscal years beginning after December 15, 2016 and interim periods within those fiscal years with early adoption permitted. The guidance should be applied prospectively. We adopted ASU 2015-11 during the three months ended March 31, 2017 and the adoption of this guidance did not have a significant impact on our consolidated financial statements.

In November 2015, the FASB issued ASU No. 2015-17, “Balance Sheet Classification of Deferred Taxes,” that requires that deferred tax liabilities and assets be classified as noncurrent in a classified statement of financial position. The current requirement that deferred tax liabilities and assets of a tax-paying component of an entity be offset and presented as a single amount is not affected by this amendment. The new guidance is effective for fiscal years, and interim periods within those years, beginning after December 15, 2016. Early adoption was permitted and the standard may be applied either retrospectively or on a prospective basis to all deferred tax assets and liabilities. We adopted ASU 2015-17 during the three months ended March 31, 2017 and the adoption of this guidance did not have a significant impact on our consolidated financial statements.

In March 2016, the FASB issued ASU No. 2016-09, “Improvements to Employee Share-Based Payment Accounting,” which simplifies several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. The guidance was effective for the Company beginning in the first quarter of fiscal year 2017. Early adoption was permitted. We adopted ASU 2016-09 during the three months ended March 31, 2017 and elected to recognize forfeitures as they occur. Prior to the adoption of ASU 2016-09, we recognized stock-based compensation based on the estimated fair value of the award, net of expected forfeitures. As of January 1, 2017, a cumulative effect adjustment of approximately \$12,000 was recognized to reflect the forfeiture rate that had been applied to unvested option awards prior to fiscal year 2017.

Recent Accounting Pronouncements, Not Yet Effective

In May 2014, the FASB issued Accounting Standards Update (“ASU”) 2014-09, “Revenue from Contracts with Customers,” related to revenue recognition. The underlying principle of the new standard is that a business or other organization will recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects what it expects to be entitled to in exchange for the goods or services. The standard also requires more detailed disclosures and provides additional guidance for transactions that were not addressed completely in prior accounting guidance. ASU 2014-09 provides alternative methods of initial adoption, and was effective for fiscal years beginning after December 15, 2016, and interim periods within those annual periods. Early adoption was not permitted. In August 2015, the FASB issued ASU No. 2015-14, “Revenue from Contracts with Customers: Deferral of the Effective Date”. The amendment in this ASU defers the effective date of ASU No. 2014-09 for all entities for one year. In March, April and May 2016, the FASB issued ASU No. 2016-08, ASU No. 2016-10 and ASU No. 2016-12, respectively, which clarify implementation guidance, including the guidance on principal versus agent considerations, performance obligations and licensing and assessments of collectability and noncash considerations. Public business entities, certain not-for-profit entities, and certain employee benefit plans should apply the guidance in ASU 2014-09 to fiscal years beginning after December 15, 2017, including interim reporting periods within that fiscal year. We will adopt the new revenue recognition standard as of January 1, 2018 using the modified retrospective method, which requires the cumulative effect of adoption, if any, to be recognized as an adjustment to opening retained earnings in the period of adoption. The majority of our revenue relates to the sale of finished products to various customers, and the adoption will not have any impact on revenue recognized from these transactions. We have finalized our analysis of the impact on certain less significant transactions involving third-party arrangements, and as a result of our analysis, we will accelerate the remaining approximately \$278,000 of deferred revenue to be recognized under the Bellco agreement as a cumulative effect adjustment to opening retained earnings as of January 1, 2018.

In January 2016, the FASB issued ASU No. 2016-01, “Recognition and Measurement of Financial Assets and Financial Liabilities,” that modifies certain aspects of the recognition, measurement, presentation, and disclosure of financial instruments. The accounting standard update is effective for fiscal years, and interim periods within those years, beginning after December 15, 2017, and early adoption is permitted. We will adopt the guidance as of January 1, 2018 and it will not have a significant impact on our consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, “Leases”, that discusses how an entity should account for lease assets and lease liabilities. The guidance specifies that an entity who is a lessee under lease agreements should recognize lease assets and lease liabilities for those leases classified as operating leases under previous FASB guidance. Accounting for leases by lessors is largely unchanged under the new guidance. The guidance is effective for us beginning in the first quarter of 2019. Early adoption is permitted. In transition, lessees and lessors are required to recognize and measure leases at the beginning of the earliest period presented using a modified retrospective approach. We are evaluating the impact of adopting this guidance on our consolidated financial statements.

In June 2016, the FASB issued ASU 2016-13, “Measurement of Credit Losses on Financial Instruments,” which replaces the incurred loss impairment methodology in current GAAP with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. The guidance is effective for us beginning in the first quarter of fiscal year 2020. Early adoption is permitted beginning in the first quarter of fiscal year 2019. We are evaluating the impact of adopting this guidance on our consolidated financial statements.

In August 2016, the FASB issued ASU 2016-15, “Classification of Certain Cash Receipts and Cash Payments,” which clarifies how certain cash receipts and cash payments are presented and classified in the statement of cash flows in order to reduce diversity in practice. The guidance is effective for us beginning in the first quarter of fiscal year 2018. Early adoption is permitted. We will adopt the guidance as of January 1, 2018 and it will not have a significant impact on our consolidated financial statements.

In November 2016, the FASB issued ASU 2016-17, “Restricted Cash,” which clarifies how restricted cash is presented and classified in the statement of cash flows. The guidance is effective for us beginning in the first quarter of fiscal year 2018. Early adoption is permitted. We will adopt the guidance as of January 1, 2018 and it will not have a significant impact on our consolidated financial statements.

In January 2017, the FASB issued ASU 2017-01, “Clarifying the Definition of a Business,” which clarifies the definition of a business in a business combination. The guidance is effective for us beginning in the first quarter of fiscal year 2018. Early adoption is permitted. We will adopt the guidance as of January 1, 2018 and it will not have a significant impact on our consolidated financial statements.

In January 2017, the FASB issued ASU 2017-04, “Simplifying the Test for Goodwill Impairment,” which simplifies the test for goodwill impairment. The guidance is effective for us beginning in the first quarter of fiscal year 2020. Early adoption is permitted for interim or annual goodwill impairments tests after January 1, 2017. We will adopt the guidance as of January 1, 2020 and it will not have a significant impact on our consolidated financial statements.

In May 2017, the FASB issued ASU 2017-09, “Compensation – Stock Compensation” which requires modification accounting to be used on shared-based payment award if the fair value, the vesting conditions, or the classification of the award changes as a result of the change in terms or conditions. The guidance is effective for us beginning in the first quarter of fiscal year 2018. We will adopt the guidance as of January 1, 2018 and it will not have a significant impact on our consolidated financial statements.

Going Concern

Our independent registered public accounting firm has included an explanatory paragraph in their report on our consolidated financial statements included in this Annual Report on Form 10-K which expressed doubt as to our ability to continue as a going concern. The accompanying consolidated 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 operating 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.

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 this Annual Report on Form 10-K, 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 the criteria of ASC Topic 605 are met. Product revenue is recorded net of returns and allowances.

Deferred revenue on the accompanying December 31, 2017 consolidated balance sheet is approximately \$278,000 and is related to the Bellco license agreement. We are recognizing the remaining deferred revenue under the Bellco license agreement on a straight line basis over the remaining forty-eight month expected obligation period which ends on December 31, 2021. Any difference between payments received and recognized revenue is reported as deferred revenue. We have recognized approximately \$2,798,000 of revenue related to this license agreement to date and approximately \$70,000 for the year ended December 31, 2017, resulting in \$278,000 being deferred as of December 31, 2017. As of January 1, 2018, the remaining approximately \$278,000 of deferred revenue will be recognized as a cumulative effect adjustment to opening retained earnings.

Stock-Based Compensation

The fair value of stock options is recognized as stock-based compensation expense in net income. We calculate employee stock-based compensation expense in accordance with ASC 718. 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 including expected stock price volatility and the estimated life of each award. 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.

Warrants

We account for stock warrants as either equity instruments or derivative liabilities depending on the specific terms of the warrant agreement.

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 evaluate 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 consolidated 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, 2017 Compared to the Fiscal Year Ended December 31, 2016

Revenues

Total revenues for the year ended December 31, 2017 were approximately \$3,809,000 compared to approximately \$2,320,000 for the year ended December 31, 2016. The increase of approximately \$1,489,000, or 64%, was primarily driven by an increase in the number of filters sold in 2017 versus in 2016, which we believe indicates early success of our strategy to provide dialysis-quality water filtration into the water-borne infection control market within the hospital sector.

Cost of Goods Sold

Cost of goods sold was approximately \$1,517,000 for the year ended December 31, 2017 compared to approximately \$1,026,000 for the year ended December 31, 2016. The increase of approximately \$491,000, or 48%, in cost of goods sold was primarily related to an increase in the number of filters sold.

Gross Margins

Gross margins were approximately 60% for the year ended December 31, 2017, compared to approximately 56% for the year ended December 31, 2016. The increase of approximately 4% was due to pricing changes, fluctuations between direct and indirect selling, changing mix of distributors, and foreign exchange rates.

Research and Development

Research and development expenses were approximately \$1,002,000 and \$1,079,000 for the years ended December 31, 2017 and December 31, 2016, respectively. This decrease of approximately \$77,000, or 7%, reflects a minor reduction due to increased focus on new product launches during the year ended December 31, 2017 compared to the year ended December 31, 2016.

Depreciation and Amortization Expense

Depreciation and amortization expense was approximately \$218,000 for the year ended December 31, 2017 compared to approximately \$230,000 for the year ended December 31, 2016. The decrease of approximately \$12,000, or 5%, is due to lower amortization expense for the year ended December 31, 2017 as a result of an amendment to our license and supply agreement with Medica, which extended the term from December 31, 2022 to December 31, 2025. The decrease was partially offset by an increase in depreciation expense as a result of purchases that occurred during the year ended December 31, 2016.

Selling, General and Administrative Expenses

Selling, general and administrative expenses were approximately \$3,298,000, for the year ended December 31, 2017 compared to approximately \$2,854,000 for the year ended December 31, 2016, representing an increase of \$444,000, or 15%. The increase was primarily due to an increase in personnel-related expenses of approximately \$249,000 due to increased headcount, an increase in share-based compensation of approximately \$118,000 due to increased headcount, an increase in professional services expenses of approximately \$69,000 due to the implementation of a new ERP system and other IT costs and an increase in other expenses of approximately \$8,000.

Interest Expense

The table below summarizes interest expense for the years ended December 31, 2017 and 2016:

	2017	2016
Interest related to unsecured long-term note payable	\$ 133,000	\$ 77,000
Amortization of debt discount - unsecured long-term note payable	116,000	53,000
Interest - outstanding payables due to a vendor	24,000	42,000
Interest on revolving credit facility	29,000	-
Total interest expense	\$ 302,000	\$ 172,000

Interest Income

Interest income of approximately \$4,000 and \$5,000 for the year ended December 31, 2017 and 2016, respectively, is as result of interest income recognized on a lease receivable.

Other Income/Expense

Other expense for the year ended December 31, 2017 of approximately \$74,000 is related to foreign currency losses. Other income for the year ended December 31, 2016 of approximately \$4,000 is related to foreign currency gains of approximately \$2,000 and miscellaneous other income of approximately \$2,000.

Income Tax Benefit

In the fiscal year ended December 31, 2017, an income tax benefit of approximately \$1,789,000 was recorded due to the sale of net operating loss and research and development credit carryforwards under the New Jersey Economic Development Authority Technology Business Tax Certificate Transfer Program.

Off-Balance Sheet Arrangements

We did not have any off-balance sheet arrangements as of December 31, 2017 or December 31, 2016.

Liquidity and Capital Resources

The following table summarizes our liquidity and capital resources as of December 31, 2017 and 2016 and is intended to supplement the more detailed discussion that follows. The amounts stated are expressed in thousands.

Liquidity and Capital Resources	December 31,	
	2017	2016
Cash	\$ 2,194	\$ 275
Other current assets	1,615	989
Working capital	1,938	369
Stockholders' equity	1,950	667

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

- 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.

We operate under an Investment, Risk Management and Accounting Policy adopted by our board of directors. Such policy limits the types of instruments or securities in which we may invest our excess funds: 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.

At December 31, 2017, we had an accumulated deficit of approximately \$121,106,000, and we expect to incur additional operating losses from operations in the foreseeable future at least until such time, if ever, that we are able to increase product sales or licensing revenue.

On March 22, 2017, we received net proceeds of approximately \$1,066,000 in connection with the issuance of common stock and warrants.

On June 7, 2016, we received net proceeds of approximately \$1,187,000 in connection with the issuance of unsecured promissory notes and warrants.

On July 24, 2015, we entered into a purchase agreement, together with a registration rights agreement, with Lincoln Park Capital Fund, LLC (“Lincoln Park”). Under the terms and subject to the conditions of the purchase agreement, we have the right to sell to and Lincoln Park is obligated to purchase up to \$10.0 million in shares of our common stock, subject to certain limitations, from time to time, over the 36-month period commencing on September 4, 2015. We may direct Lincoln Park, at our sole discretion and subject to certain conditions, to purchase up to 100,000 shares of common stock on any business day, provided that at least one business day has passed since the most recent purchase, increasing to up to 200,000 shares depending upon the closing sale price of the common stock. However, in no event shall any individual purchase exceed \$500,000. The purchase price of shares of common stock related to the future funding will be based on the prevailing market prices of such shares at the time of sales, but in no event will shares be sold to Lincoln Park on a day the common stock closing price is less than the floor price as set forth in the purchase agreement. In addition, we may direct Lincoln Park to purchase additional amounts as accelerated purchases if on the date of a purchase the closing sale price of the common stock is not below the threshold price as set forth in the purchase agreement. Our sales of shares of common stock to Lincoln Park under the purchase agreement are limited to no more than the number of shares that would result in the beneficial ownership by Lincoln Park and its affiliates, at any single point in time, of more than 9.99% of the then-outstanding shares of the common stock. In connection with the purchase agreement, we issued to Lincoln Park 250,000 shares of common stock for no proceeds. The fair value of the 250,000 shares of common stock issued was approximately \$163,000 and was recorded as a commitment fee. Pursuant to the purchase agreement, in the year ended December 31, 2015, we issued and sold an additional 300,000 shares of common stock to Lincoln Park, resulting in gross proceeds of \$135,000. In the year ended December 31, 2017, we issued and sold an additional 300,000 shares of common stock to Lincoln Park, resulting in gross proceeds of \$113,000.

On February 19, 2014, we entered into the first amendment to our license agreement with Bellco, which extended the term of the license agreement through December 31, 2021. The first amendment also expanded the territory covered by the license agreement to include Sweden, Denmark, Norway, Finland, Korea, Mexico, Brazil, China and the Netherlands. The first amendment further provided new minimum sales targets which, if not satisfied, will, at our discretion, result in conversion of the license to non-exclusive status. We agreed to reduce the fixed royalty payment payable to us for the period beginning on January 1, 2015 through and including December 31, 2021, such that Bellco now pays us a royalty based on the number of units of products sold per year in the territory as follows: for the first 125,000 units sold in total, €1.75 (approximately \$1.91) per unit; thereafter, €1.25 (approximately \$1.36) per unit. In addition, the first amendment provides that, in the event that we pursue a transaction to sell, assign or transfer all right, title and interest to the licensed patents to a third party, we will provide Bellco with written notice thereof and a right of first offer with respect to the contemplated transaction for a period of thirty days.

Pursuant to our license and supply agreement with Medica, we agreed to make minimum annual aggregate purchases from Medica throughout the term of the agreement. We currently have an understanding with Medica whereby we have agreed to pay interest to Medica at a 12% annual rate calculated on the principal amount of any outstanding invoices that are not paid pursuant to the original payment terms.

We have also pursued two different sources of additional, non-dilutive financing. First, in the third quarter of 2017, we entered into a \$1,000,000 secured revolving credit facility with Tech Capital, LLC (the “Credit Facility”). As of December 31, 2017, the principal balance of the Credit Facility was approximately \$711,000 and we are using these proceeds for working capital and general corporate purposes. See Note 6, “Secured Revolving Credit Facility,” to our consolidated financial statements contained in Part II, Item 8 of this Annual Report on Form 10-K for additional information on the Credit Facility.

Second, we received approximately \$1,789,000 from the sale of a portion of our New Jersey net operating losses and research and development tax credits through a program administered by the New Jersey Economic Development Authority (“NJEDA”) during the fourth quarter of 2017.

As of the date of this Annual Report on Form 10-K, we expect that our existing cash balances and projected increase in product sales, which includes the approximately \$1,789,000 received from the NJEDA, will allow us to fund our operations through 2018. Our cash flow currently is not, and historically has not been, sufficient to meet our obligations and commitments. It is therefore possible that we will need to seek and obtain additional financing to fund our operations. In this event, if we cannot raise sufficient capital, in connection with offerings of our common stock or through other means, we would be forced to curtail our planned activities and operations or cease operations entirely and you will lose all of your investment in us. 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 \$77,000 for the year ended December 31, 2017 compared to approximately \$2,112,000 for the year ended December 31, 2016. Our net loss was approximately \$809,000 for the year ended December 31, 2017 compared to a net loss of approximately \$3,032,000 for the year ended December 31, 2016, a decrease of approximately \$2,223,000.

The most significant item contributing to the decrease in net cash used in operating activities and the decrease in net loss was the sale of tax credits through NJEDA in the amount of approximately \$1,789,000. Other significant items contributing to the net decrease in cash used in operating activities during the year ended December 31, 2017 compared to the year ended December 31, 2016 are highlighted below:

- our inventory increased by approximately \$195,000 during the 2017 period compared to an increase of approximately \$103,000 during the 2016 period primarily as a result of managing inventory levels to match increased sales volume;
- our accounts receivable increased by approximately \$416,000 during the 2017 period compared to an increase of approximately \$17,000 during the 2016 period primarily as a result of increased sales volume;
- our stock based compensation was approximately \$772,000 during the 2017 period compared to approximately \$597,000 during the 2016 period; and
- our accounts payable increased approximately \$268,000 during the 2017 period compared to a decrease of approximately \$76,000 during the 2016 period primarily as a result of increased purchases required for our higher sales volume.

There was no cash used in investing activities for the year ended December 31, 2017. Net cash used in investing activities was approximately \$45,000 for the year ended December 31, 2016 as a result of the purchase of property and equipment.

Net cash provided by financing activities of approximately \$1,990,000 for the year ended December 31, 2017 resulted from net proceeds from the issuance of common stock of approximately \$1,179,000, net proceeds from our secured revolving credit facility of approximately \$711,000, and approximately \$100,000 of proceeds resulting from the exercise of warrants.

Net cash provided by financing activities for the year ended December 31, 2016 resulted from net proceeds of approximately \$1,187,000 from the issuance of unsecured notes payable and approximately \$1,000 of proceeds resulting from the exercise of warrants.

Contractual Obligations and Commercial Commitments

The following tables summarize our approximate minimum contractual obligations and commercial commitments as of December 31, 2017:

	Payments Due in Period				
	Total	Within 1 Year	Years 2 - 3	Years 4 - 5	More than 5 Years
Minimum Purchase Commitments ¹	\$ 30,300,000	\$ 2,700,000	\$ 6,700,000	\$ 7,400,000	\$ 13,500,000
Leases ²	712,000	141,000	290,000	281,000	-
Employment Contract ³	452,000	350,000	102,000	-	-
Total	<u>\$ 31,464,000</u>	<u>\$ 3,191,000</u>	<u>\$ 7,092,000</u>	<u>\$ 7,681,000</u>	<u>\$ 13,500,000</u>

¹ License and supply agreement with Medica.

² In addition to lease obligations for office space, obligations include a lease for various office equipment which expires in 2020.

³ Relates to employment agreement with Daron Evans, our President and Chief Executive Officer, entered into on April 15, 2015 for a term of four years.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Not required for smaller reporting companies.

Item 8. Financial Statements and Supplementary Data

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
Nephros, Inc.
South Orange, New Jersey

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Nephros, Inc. and Subsidiary (the "Company") as of December 31, 2017 and 2016, and the related consolidated statements of operations and comprehensive loss, changes in stockholders' equity (deficit), and cash flows for each of the years in the two-year period ended December 31, 2017, and the related notes (collectively referred to as the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of their operations and their cash flows for each of the years in the two-year period ended December 31, 2017, in conformity with accounting principles generally accepted in the United States of America.

Going Concern Uncertainty

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'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. Management's plans in regard to these matters are also described in Note 2. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting, 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.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Moody, Famiglietti & Andronico, LLP

We have served as the Company's auditor since 2015.
Tewksbury, Massachusetts
February 26, 2018

NEPHROS, INC. AND SUBSIDIARY
CONSOLIDATED BALANCE SHEETS

(In Thousands, Except Share and Per Share Amounts)

	December 31, 2017	December 31, 2016
ASSETS		
Current assets:		
Cash	\$ 2,194	\$ 275
Accounts receivable, net	836	388
Investment in lease, net-current portion	20	27
Inventory, net	674	479
Prepaid expenses and other current assets	85	95
Total current assets	3,809	1,264
Property and equipment, net	52	70
Investment in lease, net-less current portion	39	61
License and supply agreement, net	1,072	1,262
Other asset	11	21
Total assets	\$ 4,983	\$ 2,678
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Secured revolving credit facility	\$ 711	\$ -
Accounts payable	872	585
Accrued expenses	218	240
Deferred revenue, current portion	70	70
Total current liabilities	1,871	895
Unsecured long-term note payable, net of debt issuance costs and debt discount of \$233 and \$349, respectively	954	838
Long-term portion of deferred revenue	208	278
Total liabilities	3,033	2,011
Commitments and Contingencies (Note 13)		
Stockholders' equity:		
Preferred stock, \$.001 par value; 5,000,000 shares authorized at December 31, 2017 and 2016; no shares issued and outstanding at December 31, 2017 and 2016.	-	-
Common stock, \$.001 par value; 90,000,000 shares authorized at December 31, 2017 and 2016; 55,293,267 and 49,782,797 shares issued and outstanding at December 31, 2017 and December 31, 2016, respectively.	55	50
Additional paid-in capital	122,924	120,835
Accumulated other comprehensive income	77	67
Accumulated deficit	(121,106)	(120,285)
Total stockholders' equity	1,950	667
Total liabilities and stockholders' equity	\$ 4,983	\$ 2,678

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

NEPHROS, INC. AND SUBSIDIARY

CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS

(In Thousands, Except Share and Per Share Amounts)

	Years Ended December 31,	
	2017	2016
Net revenue:		
Product revenues	\$ 3,544	\$ 2,093
License, royalty and other revenues	265	227
Total net revenues	3,809	2,320
Cost of goods sold	1,517	1,026
Gross margin	2,292	1,294
Operating expenses:		
Research and development	1,002	1,079
Depreciation and amortization	218	230
Selling, general and administrative	3,298	2,854
Total operating expenses	4,518	4,163
Loss from operations	(2,226)	(2,869)
Interest expense	(302)	(172)
Interest income	4	5
Other income (expense), net	(74)	4
Loss before income taxes	(2,598)	(3,032)
Income tax benefit	1,789	-
Net loss	(809)	(3,032)
Other comprehensive income (loss), foreign currency translation adjustments, net of tax	10	(4)
Total comprehensive loss	\$ (799)	\$ (3,036)
Net loss per common share, basic and diluted	\$ (0.02)	\$ (0.06)
Weighted average common shares outstanding, basic and diluted	52,935,728	48,583,165

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

NEPHROS, INC. AND SUBSIDIARY

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIT)
(In Thousands, Except Share Amounts)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Stockholders' Equity (Deficit) Total
	Shares	Amount				
Balance, December 31, 2015	48,580,355	\$ 49	\$ 119,797	\$ 71	\$ (117,253)	\$ (2,664)
Net loss					(3,032)	(3,032)
Net unrealized losses on foreign currency translation, net of tax				(4)		(4)
Issuance of restricted stock	1,021,763	1				1
Restricted stock issued to settle liability	179,773		51			51
Exercise of warrants	906	-	1			1
Issuance of warrants			389			389
Noncash stock-based compensation			597			597
Balance, December 31, 2016	49,782,797	\$ 50	\$ 120,835	\$ 67	\$ (120,285)	\$ 667
Net loss					(809)	(809)
Cumulative effect of change in accounting principle			12		(12)	-
Issuance of common stock, net of equity issuance costs of \$152	4,059,994	4	1,062			1,066
Issuance of common stock	300,000	-	113			113
Exercise of warrants	333,332	-	100			100
Net unrealized gains on foreign currency translation, net of tax				10		10
Issuance of restricted stock	750,099	1				1
Restricted stock issued to settle liability	67,045		30			30
Noncash stock-based compensation			772			772
Balance, December 31, 2017	55,293,267	55	122,924	77	(121,106)	1,950

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

NEPHROS, INC. AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF CASH FLOWS

(In Thousands)

	Years Ended December 31,	
	2017	2016
Operating activities		
Net loss	\$ (809)	\$ (3,032)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation of property and equipment	28	19
Amortization of license and supply agreement	190	211
Non-cash stock-based compensation, including stock options and restricted stock	772	551
Non-employee stock-based compensation	-	46
Inventory reserve	-	27
Allowance for doubtful accounts reserve	-	35
Amortization of debt discount	116	53
(Gain) loss on foreign currency transactions	19	(4)
(Increase) decrease in operating assets:		
Accounts receivable	(416)	(17)
Inventory	(195)	(103)
Prepaid expenses and other current assets	30	(10)
Other assets	(10)	-
Increase (decrease) in operating liabilities:		
Accounts payable	268	(76)
Accrued expenses	-	51
Deferred revenue	(70)	(69)
Net cash used in operating activities	(77)	(2,112)
Investing activities		
Purchases of property and equipment	-	(45)
Net cash used in investing activities	-	(45)
Financing activities		
Proceeds from issuance of common stock	1,179	-
Net proceeds from secured revolving credit facility	711	-
Proceeds from issuance of unsecured note	-	1,187
Proceeds from exercise of warrants	100	1
Net cash provided by (used in) financing activities	1,990	1,188
Effect of exchange rates on cash	6	(4)
Net increase (decrease) in cash	1,919	(973)
Cash, beginning of year	275	1,248
Cash, end of year	\$ 2,194	\$ 275
Supplemental disclosure of cash flow information		
Cash paid for interest expense	\$ 148	\$ 113
Cash paid for income taxes	\$ 7	\$ 11
Supplemental disclosure of noncash investing and financing activities		
Purchase of equipment in accrued expenses	\$ 10	\$ -
Fair value of warrants issued with unsecured note payable	\$ -	\$ 393
Investment in lease receivable, net	\$ -	\$ 92
Cost of equipment in sales-type lease	\$ -	\$ 92
Restricted stock issued to settle liability	\$ 30	\$ 51
Deposit on inventory reclassified from prepaid expenses and other current assets to inventory	\$ -	\$ 18
Deposit on property and equipment reclassified from prepaid expenses and other current assets to property and equipment	\$ -	\$ 124

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

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. The Company was founded by health professionals, scientists and engineers affiliated with Columbia University to develop advanced end stage renal disease (“ESRD”) therapy technology and products. Today, the Company has two FDA-cleared products in the hemodiafiltration (“HDF”) market that deliver therapy to ESRD patients. These are the OLpür mid-dilution HDF filter or “dialyzer,” designed expressly for HDF therapy, and the OLpür H2H HDF module, an add-on module designed to allow the most common types of hemodialysis machines to be used for HDF therapy.

Beginning in 2009, Nephros introduced an additional, complementary business developing and marketing high performance liquid purification filters, to meet the demand for water purification in certain medical markets. The Company’s filters, generally classified as ultrafilters, are primarily used in hospitals for the prevention of infection from water-borne pathogens, such as legionella and pseudomonas, and in dialysis centers for the removal of biological contaminants from water and bicarbonate concentrate. The Company is also exploring water purification applications in several commercial markets, including food and beverage, data center cooling, and military field applications.

The U.S. facilities, located at 380 Lackawanna Place, South Orange, New Jersey, 07079, are used to house the Company’s corporate headquarters and research facilities.

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 office 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.

Use of Estimates in the Preparation of Financial Statements

The preparation of consolidated 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. Included in these estimates are assumptions about the valuation of the warrant liability, the collection of accounts receivable, value of inventories, useful life of fixed assets and intangible assets, assumptions used in determining stock compensation such as expected volatility and risk-free interest rate and the ability of the Company to continue as a going concern.

Going Concern

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. However, there can be no assurance that the Company will be able to do so. 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 within one year after the date of issuance of these consolidated financial statements. The Company’s consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

The Company’s current plans intended to mitigate the conditions noted above anticipate continued revenue growth, increasing gross profit, and improving cash flows from operations for the period of twelve months following the date of issuance of these consolidated financial statements. In addition, the Company has approximately \$2,194,000 of cash and \$289,000 available under its secured revolving credit facility as of December 31, 2017 to meet its obligations and sustain its operations.

There can be no assurance, however, that these plans will be achieved and reflected in the Company’s actual performance, nor that the Company’s future cash flows will be sufficient to meet its obligations and commitments. The Company has incurred significant losses from operations in each quarter since inception. If the Company is unable to generate sufficient cash flow from operations in the future to meet its operating requirements and other commitments, the Company will be required to adopt alternatives, such as seeking to raise debt or equity capital, curtailing its planned activities, reducing operating expenses 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.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Recently Adopted Accounting Pronouncements

In July 2015, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) No. 2015-11, “Simplifying the Measurement of Inventory,” that requires inventory be measured at the lower of cost and net realizable value and options that currently exist for market value be eliminated. The standard defines net realizable value as estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation and is effective for fiscal years beginning after December 15, 2016 and interim periods within those fiscal years with early adoption permitted. The guidance should be applied prospectively. The Company adopted ASU 2015-11 during the three months ended March 31, 2017 and the adoption of this guidance did not have a significant impact on the Company’s consolidated financial statements.

In November 2015, the FASB issued ASU No. 2015-17, “Balance Sheet Classification of Deferred Taxes,” that requires that deferred tax liabilities and assets be classified as noncurrent in a classified statement of financial position. The current requirement that deferred tax liabilities and assets of a tax-paying component of an entity be offset and presented as a single amount is not affected by this amendment. The new guidance is effective for fiscal years, and interim periods within those years, beginning after December 15, 2016. Early adoption was permitted and the standard may be applied either retrospectively or on a prospective basis to all deferred tax assets and liabilities. The Company adopted ASU 2015-17 during the three months ended March 31, 2017 and the adoption of this guidance did not have a significant impact on the Company’s consolidated financial statements.

In March 2016, the FASB issued ASU No. 2016-09, “Improvements to Employee Share-Based Payment Accounting,” which simplifies several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. The guidance was effective for the Company beginning in the first quarter of fiscal year 2017. Early adoption was permitted. The Company adopted ASU 2016-09 during the three months ended March 31, 2017 and elected to recognize forfeitures as they occur. Prior to the adoption of ASU 2016-09, the Company recognized stock-based compensation based on the estimated fair value of the award, net of expected forfeitures. As of January 1, 2017, a cumulative effect adjustment of approximately \$12,000 was recognized to reflect the forfeiture rate that had been applied to unvested option awards prior to fiscal year 2017.

Concentration 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. The Company also limits its credit risk with respect to accounts receivable by performing credit evaluations when deemed necessary.

Major Customers

For the year ended December 31, 2017, four customers accounted for 50% of the Company’s revenues. For the year ended December 31, 2016, four customers accounted for 55% of the Company’s revenues. As of December 31, 2017, three customers accounted for 38% of the Company’s accounts receivable. As of December 31, 2016, two customers accounted for 47% of the Company’s accounts receivable.

For the year ended December 31, 2017 and 2016, the following customers accounted for the following percentages of the Company’s revenues, respectively:

Customer	2017	2016
A	20%	15%
B	13%	20%
C	9%	11%
D	8%	9%

As of December 31, 2017 and 2016, the following customers accounted for the following percentages of the Company’s accounts receivable, respectively:

Customer	2017	2016
A	18%	35%
B	11%	-%
C	9%	12%

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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. The allowance for doubtful accounts was approximately \$1,000 and \$50,000 as of December 31, 2017 and 2016, respectively. There was no allowance for sales returns at December 31, 2017 or 2016. During the year ended December 31, 2017, there were write offs of accounts receivable of approximately \$42,000, which were fully reserved. There were no write-offs of accounts receivable to bad debt expense during 2016.

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 held at the manufacturers' facilities, and are valued at the lower of cost or net realizable value 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.

License and Supply Rights

The Company's rights under the License and Supply Agreement with Medica are capitalized and stated at cost, less accumulated amortization, and are amortized using the straight-line method over the term of the License and Supply Agreement. The License and Supply Agreement term is from April 23, 2012 through December 31, 2025. The Company determines amortization periods for licenses based on its assessment of various factors impacting estimated useful lives and cash flows of the acquired rights. Such factors include the expected launch date of the product, the strength of the intellectual property protection of the product and various other competitive, developmental and regulatory issues, and contractual terms. See Note 13 for further discussion.

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 and are included in selling, general and administrative expenses on the accompanying consolidated statement of operations and comprehensive loss.

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 not 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. For long-lived assets, 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 fair value less costs to sell. There were no impairment losses for long-lived assets recorded for the years ended December 31, 2017 and December 31, 2016.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Fair Value of Financial Instruments

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

The carrying amounts of the investment in lease, net, and the unsecured long-term note payable approximate fair value as of December 31, 2017 because those financial instruments bear interest at rates that approximate current market rates for similar agreements with similar maturities and credit.

Revenue Recognition

Revenue related to product sales 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. Product revenue is recorded net of returns and allowances.

In addition to product revenue, the Company recognizes revenue related to license, royalty and other agreements. During the years ended December 31, 2017 and 2016, the Company recognized approximately \$265,000 and \$227,000, respectively, related to these agreements of which approximately \$210,000 and \$183,000, respectively, relates to the License Agreement with Bellco. Royalty revenue recognized related to the Bellco Agreement is recognized as the respective sales occur. License revenue related to the Bellco Agreement is recognized ratably over the term of the agreement. See Note 13 for a further discussion of revenue recognized related to the Company's License Agreement with Bellco. The Company recognized an additional approximately \$55,000 and \$44,000 during the years ended December 31, 2017 and December 31, 2016, respectively, from other agreements.

Shipping and Handling Costs

Shipping and handling costs charged to customers are recorded as cost of goods sold and were approximately \$35,000 and \$24,000 for the years ended December 31, 2017 and 2016, respectively.

Research and Development Costs

Research and development costs are expensed as incurred.

Stock-Based Compensation

The fair value of stock options is recognized as stock-based compensation expense in the Company's consolidated statement of operations and comprehensive loss. The Company calculates employee stock-based compensation expense in accordance with ASC 718. The Company accounts for stock option grants to consultants under the provisions of ASC 505-50, and as such, these stock options are revalued at each reporting period through the vesting period. 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. The fair value of stock-based awards is amortized over the vesting period of the award.

Warrants

The Company accounts for stock warrants as either equity instruments or derivative liabilities depending on the specific terms of the warrant agreement. Stock warrants that allow for cash settlement or provide for anti-dilution of the warrant exercise price under certain conditions are accounted for as derivative liabilities.

Amortization of Debt Issuance Costs

The Company accounts for debt issuance costs in accordance with ASU 2015-03, which requires that costs paid directly to the issuer of a recognized debt liability be reported in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts. The Company amortizes the debt discount, including debt issuance costs, in accordance with ASC 835, Interest, over the term of the associated debt. See Note 7 for a discussion of the Company's unsecured long-term note payable.

Other Income (Expense), net

Other expense of approximately \$74,000 and other income of approximately \$4,000 for the years ended December 31, 2017 and 2016, respectively, is primarily due to foreign currency transaction gains and losses.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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, 2017 and 2016.

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 2013. During the years ended December 31, 2017 and 2016, 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.

In December 2017, the SEC issued Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act ("SAB 118"), which allows the Company to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. Since the Tax Cuts and Jobs Act of 2017 was passed late in the fourth quarter of 2017, and ongoing guidance and accounting interpretations are expected over the next 12 months, the Company considers the accounting of the transition tax, deferred tax re-measurements, and other items to be incomplete due to the forthcoming guidance and ongoing analysis of its final tax positions for the year ended December 31, 2017. The Company expects to complete its analysis within the measurement period in accordance with SAB 118.

The Company received approximately \$1,789,000 in December 2017 from the sale of net operating loss and research and development credit carryforwards under the New Jersey Economic Development Authority Technology Business Tax Certificate Transfer Program. These amounts are recorded on the consolidated financial statements as income tax benefit in the year they are received. See Note 9 for further discussion.

Net Income (Loss) per Common Share

Basic income (loss) per common share is calculated by dividing net income (loss) available to common shareholders by the number of weighted average common shares issued and outstanding. Diluted earnings (loss) per common share is calculated by dividing net income (loss) available to common shareholders by the weighted average number of common shares issued and outstanding for the period, plus amounts representing the dilutive effect from the exercise of stock options and warrants, as applicable. The Company calculates dilutive potential common shares using the treasury stock method, which assumes the Company will use the proceeds from the exercise of stock options and warrants to repurchase shares of common stock to hold in its treasury stock reserves.

The following securities have been excluded from the dilutive per share computation as they are antidilutive:

	December 31,	
	2017	2016
Shares underlying options outstanding	6,770,777	4,592,347
Shares underlying warrants outstanding	7,099,010	3,291,149
Unvested restricted stock	799,387	957,336

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 consolidated statements of operations and comprehensive loss are translated at the weighted average rate for the year.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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)). The Company's other comprehensive income (loss) consists only of foreign currency translation adjustments.

Recent Accounting Pronouncements, Not Yet Effective

In May 2014, the FASB issued Accounting Standards Update ("ASU") 2014-09, "Revenue from Contracts with Customers," related to revenue recognition. The underlying principle of the new standard is that a business or other organization will recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects what it expects to be entitled to in exchange for the goods or services. The standard also requires more detailed disclosures and provides additional guidance for transactions that were not addressed completely in prior accounting guidance. ASU 2014-09 provides alternative methods of initial adoption, and was effective for fiscal years beginning after December 15, 2016, and interim periods within those annual periods. Early adoption was not permitted. In August, 2015, the FASB issued ASU No. 2015-14, "Revenue from Contracts with Customers: Deferral of the Effective Date". The amendment in this ASU defers the effective date of ASU No. 2014-09 for all entities for one year. In March, April and May 2016, the FASB issued ASU No. 2016-08, ASU No. 2016-10 and ASU No. 2016-12, respectively, which clarify implementation guidance, including the guidance on principal versus agent considerations, performance obligations and licensing and assessments of collectability and noncash considerations. Public business entities, certain not-for-profit entities, and certain employee benefit plans should apply the guidance in ASU 2014-09 to fiscal years beginning after December 15, 2017, including interim reporting periods within that fiscal year. The Company will adopt the new revenue recognition standard as of January 1, 2018 using the modified retrospective method, which requires the cumulative effect of adoption, if any, to be recognized as an adjustment to opening retained earnings in the period of adoption. The majority of the Company's revenue relates to the sale of finished products to various customers, and the adoption will not have any impact on revenue recognized from these transactions. The Company has finalized its analysis of the impact on certain less significant transactions involving third-party arrangements, and as a result of the analysis, the Company will accelerate the remaining approximately \$278,000 of deferred revenue to be recognized under the Bellco agreement as a cumulative effect adjustment to opening retained earnings as of January 1, 2018.

In January 2016, the FASB issued ASU No. 2016-01, "Recognition and Measurement of Financial Assets and Financial Liabilities," that modifies certain aspects of the recognition, measurement, presentation, and disclosure of financial instruments. The accounting standard update is effective for fiscal years, and interim periods within those years, beginning after December 15, 2017, and early adoption is permitted. The Company will adopt the guidance as of January 1, 2018 and the guidance will not have a significant impact on its consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, "Leases", that discusses how an entity should account for lease assets and lease liabilities. The guidance specifies that an entity who is a lessee under lease agreements should recognize lease assets and lease liabilities for those leases classified as operating leases under previous FASB guidance. Accounting for leases by lessors is largely unchanged under the new guidance. The guidance is effective for us beginning in the first quarter of 2019. Early adoption is permitted. In transition, lessees and lessors are required to recognize and measure leases at the beginning of the earliest period presented using a modified retrospective approach. The Company is evaluating the impact of adopting this guidance on its consolidated financial statements.

In June 2016, the FASB issued ASU 2016-13, "Measurement of Credit Losses on Financial Instruments," which replaces the incurred loss impairment methodology in current GAAP with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. The guidance is effective for us beginning in the first quarter of fiscal year 2020. Early adoption is permitted beginning in the first quarter of fiscal year 2019. The Company is evaluating the impact of adopting this guidance on its consolidated financial statements.

In August 2016, the FASB issued ASU 2016-15, "Classification of Certain Cash Receipts and Cash Payments," which clarifies how certain cash receipts and cash payments are presented and classified in the statement of cash flows in order to reduce diversity in practice. The guidance is effective for the Company beginning in the first quarter of fiscal year 2018. Early adoption is permitted. The Company will adopt the guidance as of January 1, 2018 and it will not have a significant impact on its consolidated financial statements.

In November 2016, the FASB issued ASU 2016-17, "Restricted Cash," which clarifies how restricted cash is presented and classified in the statement of cash flows. The guidance is effective for us beginning in the first quarter of fiscal year 2018. Early adoption is permitted. The Company will adopt the guidance as of January 1, 2018 and it will not have a significant impact on its consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In January 2017, the FASB issued ASU 2017-01, "Clarifying the Definition of a Business," which clarifies the definition of a business in a business combination. The guidance is effective for us beginning in the first quarter of fiscal year 2018. Early adoption is permitted. The Company will adopt the guidance as of January 1, 2018 and it will not have a significant impact on its consolidated financial statements.

In January 2017, the FASB issued ASU 2017-04, "Simplifying the Test for Goodwill Impairment," which simplifies the test for goodwill impairment. The guidance is effective for us beginning in the first quarter of fiscal year 2020. Early adoption is permitted for interim or annual goodwill impairments tests after January 1, 2017. The Company will adopt the guidance as of January 1, 2020 and it will not have a significant impact on its consolidated financial statements.

In May 2017, the FASB issued ASU 2017-09, "Compensation – Stock Compensation" which requires modification accounting to be used on shared-based payment award if the fair value, the vesting conditions, or the classification of the award changes as a result of the change in terms or conditions. The guidance is effective for the Company beginning in the first quarter of fiscal year 2018. The Company will adopt the guidance as of January 1, 2018 and it will not have a significant impact on its consolidated financial statements.

Note 3 - Inventory, net

The Company's inventory components as of December 31, 2017 and 2016 were as follows:

	December 31,	
	2017	2016
Finished goods	\$ 654,000	\$ 528,000
Raw material	51,000	-
Less: inventory reserve	(31,000)	(49,000)
Total inventory, net	<u>\$ 674,000</u>	<u>\$ 479,000</u>

Note 4 - Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets as of December 31, 2017 and 2016 were as follows:

	December 31,	
	2017	2016
Prepaid insurance premiums	\$ 39,000	\$ 66,000
Security deposit	20,000	-
Other	26,000	29,000
Prepaid expenses and other current assets	<u>\$ 85,000</u>	<u>\$ 95,000</u>

Note 5 - Property and Equipment, Net

Property and equipment as of December 31, 2017 and 2016 was as follows:

	Life	December 31,	
		2017	2016
Manufacturing equipment	3-5 years	\$ 700,000	\$ 690,000
Research equipment	5 years	37,000	37,000
Computer equipment	3-4 years	43,000	43,000
Furniture and fixtures	7 years	37,000	37,000
Property and equipment, gross		817,000	807,000
Less: accumulated depreciation		765,000	737,000
Property and equipment, net		<u>\$ 52,000</u>	<u>\$ 70,000</u>

Depreciation expense for each of the years ended December 31, 2017 and 2016 was approximately \$28,000 and \$19,000, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 6 – Secured Revolving Credit Facility

On August 17, 2017, the Company entered into a Loan and Security Agreement (the “Loan Agreement”) with Tech Capital, LLC (the “Lender”). The Loan Agreement provides for a secured asset-based revolving credit facility of up to \$1,000,000, which the Company may draw upon and repay from time to time during the term of the Loan Agreement (the “Credit Facility”). As of December 31, 2017, the principal balance of the Credit Facility was approximately \$711,000. The Company is using these proceeds for working capital and general corporate purposes.

The Loan Agreement has a term of 12 months, which will automatically renew for successive 12-month periods unless cancelled. Availability under the Credit Facility will be based upon periodic borrowing base certifications valuing certain of the Company’s accounts receivable and inventory. Outstanding borrowings under the Credit Facility accrue interest, which shall be payable monthly based on the average daily outstanding balance, at a rate equal to 3.5% plus the prime rate per annum, provided that such prime rate shall not be less than 4.25% per annum. As of December 31, 2017, the current interest rate was 7.75% per annum.

The Company also granted to the Lender a first priority security interest in its assets, including its accounts receivable and inventory, to secure all of its obligations under the Credit Facility. In addition, Nephros International Limited, the Company’s wholly-owned subsidiary, unconditionally guaranteed the Company’s obligations under the Credit Facility.

In connection with the Loan Agreement, the Company incurred fees of approximately \$12,000 related to the issuance of the revolving credit facility. For the year ended December 31, 2017, approximately \$29,000 was recognized as interest expense on the consolidated statement of operations and comprehensive loss, which includes the debt issuance costs of approximately \$12,000 in addition to interest expense incurred of approximately \$17,000 on the revolving facility. As of December 31, 2017, approximately \$4,000 of the \$17,000 of interest expense incurred is included in accrued expenses on the consolidated balance sheet.

Note 7 - Unsecured Promissory Notes and Warrants

On June 7, 2016, the Company entered into a Note and Warrant Agreement (the “Agreement”) with new creditors as well as existing stockholders under which the Company issued unsecured promissory notes (“Notes”) and warrants (“Warrants”) resulting in total gross proceeds to the Company during June 2016 of approximately \$1,187,000. As of December 31, 2017, the portion of the outstanding unsecured promissory notes held by related parties comprised of entities controlled by a member of management and by Lambda Investors LLC (“Lambda”), the majority shareholder, amounted to \$30,000 and \$300,000, respectively. The outstanding principal under the Notes accrues interest at a rate of 11% per annum. The Company is required to make interest only payments on a semi-annual basis, and all outstanding principal under the Notes is repayable in cash on June 7, 2019, the third anniversary of the date of issuance. In addition to the Notes, the Company issued Warrants to purchase approximately 2.4 million shares of the Company’s common stock to the investors in the Agreement. The Warrants have an exercise price of \$0.30 per share and are exercisable for 5 years from the issuance date. The Warrants issued under the Agreement are indexed to the Company’s common stock, therefore, the Company is accounting for the Warrants as a component of equity. In connection with the Agreement, the Company incurred approximately \$13,000 in legal fees.

The approximately \$1,187,000 in gross proceeds from the Agreement, along with the legal fees of approximately \$13,000, were allocated between the Notes and Warrants based on their relative fair values. The portion of the gross proceeds allocated to the Warrants of approximately \$393,000 was accounted for as additional paid-in capital. Approximately \$4,000 of the legal fees were allocated to the Warrants and recorded as a reduction to additional paid-in capital. The remainder of the gross proceeds of approximately \$794,000, net of the remainder of the fees of approximately \$9,000, was allocated to the Notes with the fair value of the Warrants resulting in a debt discount. The debt discount is being amortized to interest expense using the effective interest method in accordance with ASC 835 over the term of the Agreement. Approximately \$116,000 and \$53,000 was recognized as amortization of debt discount during the fiscal years ended December 31, 2017 and 2016, respectively, and is included in interest expense on the consolidated statement of operations and comprehensive loss. Approximately \$133,000 and \$77,000 was recognized as interest expense for the fiscal years ended December 31, 2017 and 2016, respectively, for interest payable to noteholders. For the year ended December 31, 2017, the amount of interest expense recognized related to related parties comprised of entities controlled by a member of management and by Lambda was approximately \$3,000 and \$33,000, respectively. For the year ended December 31, 2016, the amount of interest expense recognized related to related parties comprised of entities controlled by a member of management and by Lambda was approximately \$2,000 and \$19,000, respectively. As of December 31, 2017, approximately \$195,000 of interest has been paid to noteholders and approximately \$14,000 of interest is included in accrued expenses on the consolidated balance sheet.

NEPHROS, INC. AND SUBSIDIARY

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 8 - Accrued Expenses

Accrued expenses as of December 31, 2017 and 2016 were as follows:

	December 31,	
	2017	2016
Accrued legal	\$ 90,000	\$ 99,000
Accrued directors' compensation	-	30,000
Accrued royalty	-	18,000
Accrued sales commission	40,000	-
Accrued management bonus	-	19,000
Accrued accounting	11,000	6,000
Accrued interest	18,000	17,000
Accrued other	59,000	51,000
	<u>\$ 218,000</u>	<u>\$ 240,000</u>

Note 9 - Income Taxes

The income tax benefit attributable to loss before income taxes for the years ended December 31, 2017 and 2016 is as follows:

	2017	2016
Current:		
Federal	\$ -	\$ -
State	(1,789,000)	-
Foreign	-	-
Total current tax benefit	<u>(1,789,000)</u>	<u>-</u>
Deferred:		
Federal	-	-
State	-	-
Foreign	-	-
Total deferred tax benefit	<u>-</u>	<u>-</u>
Income tax benefit	<u>\$ (1,789,000)</u>	<u>\$ -</u>

A reconciliation of the income tax benefit computed at the statutory tax rate to the Company's effective tax rate is as follows:

	2017	2016
U.S. federal statutory rate	35.00%	35.00%
State taxes	(21.84)%	(5.21)%
Sale of NJ NOLS and credits	(68.91)%	-%
Change in federal statutory rate	(441.07)%	-%
Stock based compensation	(5.48)%	-%
Other permanent difference due to sale of NJ NOLs and credits	(24.12)%	-%
State research and development credits	2.24%	1.87%
Other	(12.46)%	0.97%
Valuation allowance	467.73%	(32.63)%
Effective tax rate	<u>(68.91)%</u>	<u>-%</u>

Significant components of the Company's deferred tax assets as of December 31, 2017 and 2016 are as follows:

	2017	2016
Deferred tax assets:		
Net operating loss carry forwards	\$ 17,907,000	\$ 29,861,000
Research and development credits	1,322,000	1,220,000
Nonqualified stock option compensation expense	453,000	537,000
Other temporary book - tax differences	125,000	255,000
Total deferred tax assets	<u>19,807,000</u>	<u>31,873,000</u>
Valuation allowance for deferred tax assets	<u>(19,807,000)</u>	<u>(31,873,000)</u>
Net deferred tax assets	<u>\$ -</u>	<u>\$ -</u>

The Tax Cuts and Jobs Act of 2017 (the "Tax Act"), which was signed into law on December 22, 2017, has resulted in significant changes to the U.S. corporate income tax system. These changes include a federal statutory rate reduction from 35% to 21%, the elimination or reduction of certain domestic deductions and credits and limitations on the deductibility of interest expense and executive compensation. The Tax Act also transitions international taxation from a worldwide system to a modified territorial system and includes base erosion prevention measures on non-U.S. earnings, which has the effect of subjecting certain earnings of our foreign subsidiaries to U.S. taxation as global intangible low-taxed income. The Company considers the accounting of the transition tax, deferred tax re-measurements, and other items to be incomplete due to the forthcoming guidance and ongoing analysis of its final tax positions for the year ended December 31, 2017. The Company expects to complete its analysis within the measurement period in accordance with SAB 118.

The Tax Act also includes a one-time mandatory deemed repatriation tax on accumulated foreign subsidiaries' previously untaxed foreign earnings.

Changes in tax rates and tax laws are accounted for in the period of enactment.

In the fiscal year ended December 31, 2017, the Company recorded an income tax benefit of approximately \$1,789,000, due to the sale of net operating loss and research and development credit carryforwards under the New Jersey Economic Development Authority Technology Business Tax Certificate Transfer Program. These amounts are recorded on the consolidated financial statements as income tax benefit in the year they are received. As a result of the sale of net operating loss and research and development credit carryforwards, the Company's deferred tax assets decreased by approximately \$1,903,000. The gross amounts of the net operating loss and research and development credit carryforwards that were sold were approximately \$19,233,000 and \$170,000, respectively. The Agreement is subject to certain covenants. As of December 31, 2017, the Company is in compliance with these covenants.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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. The Company's valuation allowance decreased approximately \$12,066,000 from December 31, 2016 to December 31, 2017.

At December 31, 2017, the Company had Federal income tax net operating loss carryforwards of \$80,097,444 and New Jersey income tax net operating loss carryforwards of \$19,864,732. Foreign income tax net operating loss carryforwards were \$7,902,716 as of December 31, 2017. The Company also had Federal and state research tax credit carryforwards of \$1,321,746 at December 31, 2017 and \$1,220,115 at December 31, 2016. The Company's net operating losses and research credits may ultimately be limited by Section 382 of the Internal Revenue Code and, as a result, it may be unable to offset future taxable income (if any) with losses, or its tax liability with credits, before such losses and credits expire. The Federal and New Jersey net operating loss carryforwards and Federal and New Jersey tax credit carryforwards will expire at various times between 2018 and 2037 unless utilized.

The Company has analyzed the tax positions taken or expected to be taken in its tax returns and concluded it has no liability related to uncertain tax positions. The Company is subject to income tax examinations by major taxing authorities for all tax years subsequent to 2013 and does not anticipate a change in its uncertain tax positions within the next twelve months. It is the Company's policy to report interest and penalties, if any, related to unrecognized tax benefits in income tax expense.

Note 10 - Stock Plans, Share-Based Payments and Warrants

Stock Plans

In 2015, the Board of Directors adopted the Nephros, Inc. 2015 Equity Incentive Plan ("2015 Plan") and reserved and authorized 7,000,000 shares of common stock for issuance pursuant to stock options, restricted stock and other equity incentive awards to the Company's employees, directors and consultants. In December 2017, the Board of Directors approved an amendment to the 2015 Plan increasing the number of shares of common stock authorized thereunder to 10,000,000 shares. The maximum contractual term for stock options granted under the 2015 Plan is 10 years.

As of December 31, 2017, 5,168,598 options had been issued to employees under the 2015 Plan and were outstanding. The options issued to employees expire on various dates between May 15, 2025 and December 20, 2027. As of December 31, 2017, 442,793 options issued to non-employees under the 2015 Plan were outstanding and will expire on various dates between May 31, 2021 and December 20, 2027. Taking into account all options and restricted stock granted under the 2015 Plan, there are 1,752,135 shares available for future grant under the 2015 Plan. Options currently outstanding are fully vested or will vest upon a combination of the following: immediate vesting, performance-based vesting or straight line vesting of two or four years. Of the 5,611,391 options granted, 2,103,865 options will vest when specified performance criteria are met.

The Company's previously adopted and approved plan, the 2004 Stock Incentive Plan ("2004 Plan"), expired in the year ended December 31, 2014. As of December 31, 2017, 368,025 options had been issued to employees under the 2004 Plan and were outstanding. The options expire on various dates between January 6, 2019 and February 5, 2024. As of December 31, 2017, 791,361 options had been issued to non-employees under the 2004 Plan and were outstanding. Such options expire at various dates between January 8, 2020 and November 17, 2024. No shares are available for future grants under the 2004 Plan. Options currently outstanding are fully vested or are currently vesting over a period of four years.

Share-Based Payments

Expense is recognized over the vesting period of the options. Stock-based compensation expense recognized for the years ended December 31, 2017 and 2016 was approximately \$456,000 and \$388,000, respectively. Approximately \$5,000 of total stock-based compensation expense recognized during the year ended December 31, 2016 is the result of a modification of stock options awards issued to a non-employee director who is no longer serving as a director for the Company.

Approximately \$426,000 and \$363,000 has been recognized in selling, general and administrative expenses on the consolidated statement of operations and comprehensive loss for the years ended December 31, 2017 and 2016, respectively. Approximately \$30,000 and \$25,000 has been recognized in research and development expenses on the consolidated statement of operations and comprehensive loss for the years ended December 31, 2017 and 2016, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The following table summarizes the option activity for the years ended December 31, 2017 and 2016:

	Shares	Weighted Average Exercise Price
Outstanding at December 31, 2015	4,303,638	\$ 0.65
Options granted	510,520	0.37
Options forfeited or expired	(221,811)	1.04
Outstanding at December 31, 2016	4,592,347	0.60
Options granted	2,311,542	0.44
Options forfeited or expired	(133,112)	0.77
Outstanding at December 31, 2017	6,770,777	\$ 0.55

The following table summarizes the options exercisable and vested and expected to vest as of December 31, 2017 and 2016:

	Shares	Weighted Average Exercise Price
Exercisable at December 31, 2016	1,866,019	\$ 0.70
Vested and expected to vest at December 31, 2016	4,434,220	\$ 0.61
Exercisable at December 31, 2017	2,271,527	\$ 0.65
Vested and expected to vest at December 31, 2017	6,509,821	\$ 0.55

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 for the risk-free interest rates, expected dividend yield, expected lives and expected stock price volatility.

Grant Year	Option Pricing Assumptions	
	2017	2016
Stock Price Volatility	104.56%	114.63%
Risk-Free Interest Rates	2.19%	1.81%
Expected Life (in years)	6.11	5.83
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 weighted-average fair value of options granted in 2017 and 2016 is \$0.36 and \$0.31, respectively. The aggregate intrinsic values of stock options outstanding and stock options vested or expected to vest as of December 31, 2017 are approximately \$170,000 and \$162,000, respectively. 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 7.8 years.

The aggregate intrinsic values of stock options outstanding and of stock options vested or expected to vest as of December 31, 2016 are approximately \$25,000 and \$24,000, respectively. 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 7.8 years.

As of December 31, 2017, there was approximately \$1,357,000 of total unrecognized compensation cost related to unvested share-based compensation awards granted under the equity compensation plans. Approximately \$230,000 of the \$1,357,000 total unrecognized compensation will be recognized at the time if and when certain performance conditions are met. The remaining approximately \$1,127,000 will be amortized over the weighted average remaining requisite service period of 2.3 years.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Restricted Stock Issued to Employees and Directors

The Company has issued restricted stock as compensation for the services of certain employees and non-employee directors. The grant date fair value of restricted stock was based on the fair value of the common stock on the date of grant, and compensation expense is recognized based on the period in which the restrictions lapse.

The following table summarizes restricted stock activity for the year end December 31, 2017 and 2016:

	Shares	Weighted Average Grant Date Fair Value
Nonvested at December 31, 2015	501,182	\$ 0.46
Granted	1,047,109	0.35
Vested	(590,955)	0.46
Nonvested at December 31, 2016	957,336	0.35
Granted	817,144	0.50
Vested	(975,093)	0.35
Nonvested at December 31, 2017	<u>799,387</u>	\$ 0.50

The total fair value of restricted stock which vested during the years ended December 31, 2017 and 2016 was approximately \$345,000 and \$291,000, respectively.

Total stock-based compensation expense for the restricted stock granted to employees and non-employee directors was approximately \$316,000 and \$163,000, respectively, for the years ended December 31, 2017 and December 31, 2016. Approximately \$264,000 and \$163,000 is included in selling, general and administrative expenses on the accompanying consolidated statement of operations and comprehensive loss for the years ended December 31, 2017 and 2016, respectively. Approximately \$52,000 is included in research and development expenses on the accompanying consolidated statement of operations and comprehensive loss for the year ended December 31, 2017. Approximately \$30,000 and \$51,000 of stock-based compensation expense was recognized in years ended December 31, 2016 and 2015, respectively, related to restricted stock granted to employees for the years ended December 31, 2017 and 2016, respectively, to settle liabilities for services incurred in the respective prior fiscal years. As of December 31, 2017, there was approximately \$238,000 of unrecognized compensation expense related to the restricted stock awards, which is expected to be recognized over the next six months.

Restricted Stock Issued to Nonemployees

In March 2016, 57,143 shares of restricted stock, with a fair value of approximately \$16,000, were issued as payment for consulting services to be provided through December 2016. The Company recorded approximately \$16,000 of selling, general and administrative expense during the year ended December 31, 2016. The restricted stock vested on June 15, 2016.

In March 2016, 38,461 shares of restricted stock, with a fair value of approximately \$10,000, were issued as payment for consulting services to be provided during the fiscal year ended December 31, 2016. The Company recorded approximately \$10,000 of selling, general and administrative expense during the year ended December 31, 2016. The restricted stock vested on September 30, 2016.

In January 2016, 58,823 shares of restricted stock, with a fair value of approximately \$20,000, were issued as payment for consulting services to be provided through December 2016. The Company recorded approximately \$20,000 of selling, general and administrative expense during the year ended December 31, 2016. The restricted stock vested on April 12, 2016.

Warrants

The Company accounts for stock warrants as either equity instruments or derivative liabilities depending on the specific terms of the warrant agreement. Stock warrants are accounted for as derivative liabilities if the stock warrants allow for cash settlement or provide for modification of the warrant exercise price in the event that subsequent sales of common stock are at a lower price per share than the then-current warrant exercise price. The Company classifies derivative warrant liabilities on the balance sheet as a long-term liability, which is measured to fair value at each balance sheet date subsequent to the initial issuance of the stock warrant.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The following table summarizes certain terms of all of the Company's outstanding warrants at December 31, 2017 and 2016:

Total Outstanding Warrants

Title of Warrant	Date Issued	Expiry Date	Exercise Price	Total Common Shares Issuable as of December 31,	
				2017	2016
Equity-classified warrants					
May 2015 – private placement warrants	3/18/2015	3/18/2020	\$ 0.85	917,149	917,149
June 2016 – Note and Warrant Agreement	6/7/2016	6/7/2021	\$ 0.30	2,374,000	2,374,000
March 2017 – private placement warrants	3/22/2017	3/22/2022	\$ 0.30	3,807,861	-
Total				<u>7,099,010</u>	<u>3,291,149</u>

The weighted average exercise price of the outstanding warrants was \$0.37 as of December 31, 2017 and \$0.45 as of December 31, 2016.

Warrants Exercised During 2017 and 2016

During the year ended December 31, 2017, 333,332 warrants were exercised, resulting in proceeds of approximately \$100,000 and the issuance of 333,332 shares of the Company's common stock. During the year ended December 31, 2016, 19,621 warrants were exercised, resulting in proceeds of approximately \$1,000 and the issuance of 906 shares of the Company's common stock.

Note 11 - Stockholders' Equity (Deficit)**March 2017 Private Placement**

On March 17, 2017, the Company entered into a Securities Purchase Agreement with certain accredited investors identified therein pursuant to which the Company issued and sold in a private placement 4,059,994 units of its securities resulting in gross proceeds to the Company of approximately \$1,218,000. Each unit consisted of one share of the Company's common stock and a five-year warrant to purchase one additional share of common stock. The purchase price for each unit was \$0.30. The warrants are exercisable at a price of \$0.30 per share and are indexed to the Company's common stock; therefore, the Company is accounting for the warrants as a component of equity. The portion of the gross proceeds received from certain members of management and existing shareholders amounted to \$315,000. Proceeds, net of equity issuance costs of \$152,000, recorded as a result of the private placement were approximately \$1,066,000. In addition to the equity issuance costs incurred as a result of the private placement, the Company also issued a warrant to purchase 81,199 shares of its common stock to the placement agent engaged in connection with the private placement. The form and terms of the placement agent warrant is substantially the same as the form of warrants issued to the investors under the Securities Purchase Agreement, except that the exercise price is \$0.33 per share.

July 2015 Purchase Agreement and Registration Rights Agreement

On July 24, 2015, the Company entered into a Purchase Agreement, together with a Registration Rights Agreement, with Lincoln Park, an Illinois limited liability company.

Under the terms and subject to the conditions of the Purchase Agreement, the Company has the right to sell to and Lincoln Park is obligated to purchase up to \$10.0 million in shares of the Company's common stock, subject to certain limitations, from time to time, over the 36-month period commencing on September 4, 2015. The Company may direct Lincoln Park, at its sole discretion and subject to certain conditions, to purchase up to 100,000 shares of common stock on any business day, provided that at least one business day has passed since the most recent purchase, increasing to up to 200,000 shares depending upon the closing sale price of the common stock (such purchases, "Regular Purchases"). However, in no event shall a Regular Purchase be more than \$500,000. The purchase price of shares of common stock related to the future funding will be based on the prevailing market prices of such shares at the time of sales, but in no event will shares be sold to Lincoln Park on a day the common stock closing price is less than the floor price as set forth in the Purchase Agreement. In addition, the Company may direct Lincoln Park to purchase additional amounts as accelerated purchases if on the date of a Regular Purchase the closing sale price of the common stock is not below the threshold price as set forth in the Purchase Agreement. The Company's sales of shares of common stock to Lincoln Park under the Purchase Agreement are limited to no more than the number of shares that would result in the beneficial ownership by Lincoln Park and its affiliates, at any single point in time, of more than 9.99% of the then-outstanding shares of the common stock.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In connection with the Purchase Agreement, the Company issued to Lincoln Park 250,000 shares of common stock for no proceeds. The fair value of the 250,000 shares of common stock issued was approximately \$163,000 and was recorded as a commitment fee. Pursuant to the Purchase Agreement, in September 2015, the Company issued and sold an additional 300,000 shares of common stock to Lincoln Park at a per share price of \$0.45, resulting in gross proceeds of \$135,000. The commitment fee of \$163,000 was fully amortized and recorded in additional paid-in capital as of December 31, 2015.

The Purchase Agreement and the Registration Rights Agreement contain customary representations, warranties, agreements and conditions to completing future sale transactions, indemnification rights and obligations of the parties. The Company has the right to terminate the Purchase Agreement at any time, at no cost or penalty. Actual sales of shares of common stock to Lincoln Park under the Purchase Agreement will depend on a variety of factors to be determined by the Company from time to time, including, among others, market conditions, the trading price of the common stock and determinations by the Company as to the appropriate sources of funding for the Company and its operations. There are no trading volume requirements or restrictions under the Purchase Agreement. Lincoln Park has no right to require any sales by the Company, but is obligated to make purchases from the Company as the Company directs in accordance with the Purchase Agreement. Lincoln Park has covenanted not to cause or engage in any manner whatsoever, any direct or indirect short selling or hedging of Company shares.

Pursuant to the Purchase Agreement, in January 2017, the Company issued and sold 300,000 shares of common stock to Lincoln Park resulting in gross proceeds of \$113,000.

Note 12 - 401(k) Plan

On December 31, 2016, the Company terminated its previously established deferred contribution retirement plan which covered all employees. The Company contributed and expensed approximately \$44,000 to this plan in 2016.

On January 1, 2017, the Company established a Savings Incentive Match Plan for Employees Individual Retirement Account (SIMPLE IRA), which covers all employees. The SIMPLE IRA Plan provides for voluntary employee contributions up to statutory IRA limitations. The Company matches 100% of employee contributions to the SIMPLE IRA Plan, up to 3% of each employee's salary. The Company contributed and expensed approximately \$39,000 to this plan in 2017.

Note 13 - 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 OLPür 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 (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").

On February 19, 2014, the Company entered into the first amendment to the license agreement with Bellco, pursuant to which the Company and Bellco agreed to extend the term of the License Agreement from December 31, 2016 to December 31, 2021. The first amendment also expands the Territory covered by the License Agreement to include, on an exclusive basis, Sweden, Denmark, Norway and Finland and on a non-exclusive basis, Korea, Mexico, Brazil, China and the Netherlands. The first amendment further provides new minimum sales targets which, if not satisfied, will, at the discretion of the Company, result in conversion of the license to non-exclusive status. The Company has agreed to reduce the fixed royalty payment payable to the Company for the period beginning on January 1, 2015 through and including December 31, 2021. Beginning on January 1, 2015 through and including December 31, 2021, Bellco will pay the Company a royalty based on the number of units of Products sold per year in the Territory as follows: for the first 125,000 units sold in total, €1.75 (approximately \$1.91) per unit; thereafter, €1.25 (approximately \$1.36) per unit. In addition, the first amendment provides that, in the event that the Company pursues a transaction to sell, assign or transfer all right, title and interest to the licensed patents to a third party, the Company will provide Bellco with written notice thereof and a right of first offer with respect to the contemplated transaction for a period of thirty (30) days.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Deferred revenue related to the license agreement with Bellco was approximately \$278,000 and \$348,000 on the accompanying consolidated balance sheets as of December 31, 2017 and 2016, respectively. The Company has recognized approximately \$2,798,000 of revenue related to this license agreement to date, including approximately \$70,000 for the year ended December 31, 2017, resulting in \$278,000 being deferred over the remainder of the expected obligation period. The Company recognized approximately \$69,000 of revenue related to this license agreement for the year ended December 31, 2016.

The Company recognized royalty income from Bellco pursuant to the license agreement of approximately \$140,000 and \$114,000 for the years ended December 31, 2017 and 2016, respectively.

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, and for 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.

On May 5, 2017, the Company and Medica entered into a Third Amendment to the License and Supply Agreement (the "Third Amendment"). Pursuant to the Third Amendment, Medica expanded the products covered by the original License and Supply Agreement to include both certain filtration products based on Medica's proprietary Versatile microfiber technology and certain filtration products based on Medica's proprietary Medisulfone ultrafiltration technology. The Third Amendment also limits the territory in which Medica granted the Company an exclusive license, with right of sublicense, to market, promote, distribute, offer for sale, and sell the filtration products to North America, Central America, Columbia, Venezuela, Chile, Ecuador, Peru, Ireland, the United Kingdom, Australia and New Zealand. The Company's multinational distributors retain the right to market certain of the products worldwide, other than in Italy, on a non-exclusive basis.

On September 26, 2017, the Company and Medica entered into a Fourth Amendment to the License and Supply Agreement (the "Fourth Amendment") which extended the term of the License and Supply Agreement from December 31, 2022 to December 31, 2025, unless earlier terminated by either party in accordance with the terms of the License and Supply Agreement. As a result of the Fourth Amendment, approximately \$134,000 of amortization expense will be recognized in each of the years ended December 31, 2018 through 2025.

In exchange for the rights granted, the Company agreed to make certain minimum annual aggregate purchases from Medica over the term of the License and Supply Agreement. As of December 31, 2017, the Company has agreed to make the following minimum annual aggregate purchases from Medica:

2017: €1,600,000 (approximately \$1,900,000)
2018: €2,500,000 (approximately \$2,700,000)
2019: €3,000,000 (approximately \$3,300,000)
2020: €3,150,000 (approximately \$3,400,000)
2021: €3,300,000 (approximately \$3,600,000)
2022: €3,475,000 (approximately \$3,800,000)
2023: €3,625,000 (approximately \$4,300,000)
2024: €3,825,000 (approximately \$4,500,000)
2025: €4,000,000 (approximately \$4,700,000)

The Company's aggregate purchase commitments totaled approximately €1,600,000 (approximately \$1,900,000) for the year ended December 31, 2017.

In exchange for the license, the Company also paid Medica a total of €1,500,000 (approximately \$2,000,000) in three installments: €500,000 (approximately \$700,000) on April 23, 2012, €600,000 (approximately \$800,000) on February 4, 2013, and €400,000 (approximately \$500,000) on May 23, 2013. 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 value of these stock options was approximately \$273,000 at the time of their issuance. Together with the total installment payments described above, the fair value of the options has been capitalized as license and supply agreement, net.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The gross value of the intangible asset capitalized was approximately \$2,250,000. License and supply agreement, net, on the consolidated balance sheet is approximately \$1,072,000 and \$1,262,000 as of December 31, 2017 and December 31, 2016, respectively. Accumulated amortization is approximately \$1,178,000 and \$988,000 as of December 31, 2017 and December 31, 2016, respectively. The asset is being amortized as an expense over the life of the License and Supply Agreement. Approximately \$190,000 and \$211,000 has been charged to amortization expense for the years ended December 31, 2017 and 2016, respectively, on the consolidated statement of operations and comprehensive loss.

As of September 2013, the Company has an understanding with Medica whereby the Company has agreed to pay interest to Medica at a 12% annual rate calculated on the principal amount of any outstanding invoices that are not paid pursuant to the original payment terms. For the years ended December 31, 2017 and 2016, approximately \$24,000 and \$42,000 of interest, respectively, was recognized as interest expense.

In addition, for the period beginning April 23, 2014 through December 31, 2025, 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. Approximately \$34,000 in royalties are included in accounts payable as of December 31, 2017. Approximately \$18,000 in royalties are included in accrued expenses as of December 31, 2016.

Contractual Obligations

The Company entered into an operating lease which began in December 2017 at 380 Lackawanna Place, South Orange, New Jersey 07079 and consists of approximately 7,700 square feet of space. The rental agreement expires in November 2022 with a monthly cost of approximately \$11,000. Approximately \$11,000 related to a security deposit for this U.S. office facility is classified as other assets on the consolidated balance sheet as of December 31, 2017. We use these facilities to house our corporate headquarters and research facilities.

The Company's prior operating lease was terminated in December 2017 with a monthly cost of approximately \$9,000. Approximately \$21,000 related to a security deposit for this U.S. office facility is classified as prepaid and other current assets on the consolidated balance sheet as of December 31, 2017.

The lease agreement for the office space in Ireland was entered into on August 1, 2017 and includes a twelve month term.

Rent expense for the years ended December 31, 2017 and 2016 totaled \$131,000 and \$126,000, respectively.

As of December 31, 2017, minimum lease payments are as follows:

2018	\$	132,000
2019		136,000
2020		140,000
2021		145,000
2022		136,000

Investment in Lease, net

On October 8, 2015, the Company entered into an equipment lease agreement with Biocon 1, LLC. The lease commenced on January 1, 2016 with a term of 60 months and monthly rental payments of approximately \$1,800 will be paid to the Company. At the completion of the lease term, Biocon 1, LLC will own the equipment provided under the agreement. An investment in lease was established for the sales-type lease receivable at the present value of the future minimum lease payments. Interest income will be recognized monthly over the lease term using the effective-interest method. Cash received will be applied against the direct financing lease receivable and will be presented within changes in operating assets and liabilities in the operating section of the Company's consolidated statement of cash flows. At lease inception, an investment in the lease of approximately \$92,000 was recorded, net of unearned interest of approximately \$14,000. During the fiscal years ended December 31, 2017 and 2016, approximately \$4,000 and \$5,000, respectively, was recognized in interest income. As of December 31, 2017, investment in lease, current, is approximately \$20,000, net of unearned interest of \$3,000. As of December 31, 2017, investment in lease, noncurrent, is approximately \$39,000, net of unearned interest of \$3,000. As of December 31, 2016, investment in lease, current, is approximately \$27,000, net of unearned interest of \$4,000. As of December 31, 2016, investment in lease, noncurrent, is approximately \$61,000, net of unearned interest of \$5,000.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

As of December 31, 2017, scheduled maturities of minimum lease payments receivable were as follows:

2018	\$	18,000
2019		19,000
2020		22,000
		<u>59,000</u>
Less: Current portion		<u>(20,000)</u>
Investment in lease, noncurrent	\$	<u>39,000</u>

Contractual Obligations and Commercial Commitments

The following table summarizes the Company's approximate minimum contractual obligations and commercial commitments as of December 31, 2017:

	Payments Due in Period				
	Total	Within 1 Year	Years 2 - 3	Years 4 - 5	More than 5 Years
Minimum Purchase Commitments ¹	\$ 30,300,000	\$ 2,700,000	\$ 6,700,000	\$ 7,400,000	\$ 13,500,000
Leases ²	712,000	141,000	290,000	281,000	-
Employment Contract ³	452,000	350,000	102,000	-	-
Total	<u>\$ 31,464,000</u>	<u>\$ 3,191,000</u>	<u>\$ 7,092,000</u>	<u>\$ 7,681,000</u>	<u>\$ 13,500,000</u>

¹ License and Supply Agreement with Medica.

² In addition to lease obligations for office space, obligations include a lease for various office equipment which expires in 2020.

³ Relates to employment agreement with Daron Evans, the Company's President and Chief Executive Officer, entered into on April 15, 2015 for a term of four years.

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

There have been no disagreements with our accountants during 2017 or 2016.

Item 9A. Controls and Procedures

Disclosure Controls and Procedures

Disclosure controls and procedures are controls and other procedures that are designed to ensure that information required to be disclosed in our reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed in company reports filed or submitted under the Exchange Act is accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure.

As required by Rules 13a-15 and 15d-15 under the Exchange Act, our Chief Executive Officer and Chief Financial Officer carried out an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures as of December 31, 2017. Based upon this evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures were effective as of December 31, 2017. Accordingly, management believes that the financial statements included in this Annual Report on Form 10-K present fairly in all material respects our financial position, results of operations and cash flows for the period presented.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). Under the supervision of the Chief Executive Officer and Chief Financial Officer, management conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2017 based on the framework set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in "Internal Control-Integrated Framework". Based on our assessment, management concluded that as of December 31, 2017, our internal control over financial reporting was effective as of December 31, 2017.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during our most recent fiscal quarter that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

On December 20, 2017, our Board of Directors approved an increase to the number of shares reserved for issuance under our 2015 Equity Incentive Plan (the "2015 Plan") from 7,000,000 shares of common stock to 10,000,000 shares of common stock. As of December 31, 2017, 1,752,135 shares of common stock remained available for issuance pursuant to the 2015 Plan. All other terms of the 2015 Plan remain unchanged.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information set forth under the captions “Proposal No. 1 – Election of Directors,” “Corporate Governance” and “Section 16(a) Beneficial Ownership Reporting Compliance” in the 2018 Proxy Statement is incorporated herein by reference.

Item 11. Executive Compensation

The information set forth under the caption “Compensation Matters” in the 2018 Proxy Statement is incorporated herein by reference.

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

The information set forth under the captions “Stock Ownership of Management and Principal Stockholders” and “Compensation Matters” in the 2018 Proxy Statement is incorporated herein by reference.

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

The information set forth under the captions “Corporate Governance” and “Certain Relationships and Related Transactions” in the 2018 Proxy Statement is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services

The information set forth under the caption “Proposal No. 2 – Ratification of Selection of Independent Registered Public Accounting Firm” in the 2018 Proxy Statement is incorporated herein by reference.

Item 15. Exhibits, Financial Statement Schedules

(a) Documents filed as part of this report:

(1) Consolidated Financial Statements of Nephros, Inc.

Reports of independent registered public accounting firms.

Consolidated balance sheets as of December 31, 2017 and 2016.

Consolidated statements of operations and comprehensive loss for the years ended December 31, 2017 and 2016.

Consolidated statements of changes in stockholders' equity (deficit) for the years ended December 31, 2017 and 2016.

Consolidated statements of cash flows for the years ended December 31, 2017 and 2016.

Notes to consolidated financial statements.

(2) Exhibits:

Exhibit No.	Description
3.1	<u>Conformed Copy of the Fourth Amended and Restated Certificate of Incorporation, incorporating those Certificates of Amendment dated June 4, 2007; June 29, 2007; November 13, 2007; October 23, 2009; March 10, 2011; and March 11, 2011.*</u>
3.2	<u>Second Amended and Restated By-Laws of the Registrant, incorporated by reference to Exhibit 3.1 to Nephros, Inc.'s Current Report on Form 8-K, filed with the SEC on December 3, 2007 (SEC File No. 001-32288).</u>
4.1	<u>Specimen of Common Stock Certificate of the Registrant, incorporated by reference to Exhibit 4.1 to Nephros, Inc.'s Amendment No. 1 to Registration Statement on Form S-1/A (Reg. No. 333-116162), filed with the SEC on July 20, 2004.</u>
4.2	<u>Form of Warrant to Purchase Common Stock issued to various investors, incorporated by reference to Exhibit 4.1 to Nephros, Inc.'s Current Report on Form 8-K, filed with the SEC on May 18, 2015.</u>
4.3	<u>Form of Unsecured Promissory Note issued June 3 and 9, 2016, incorporated by reference to Exhibit 4.1 to Nephros, Inc.'s Current Report on Form 8-K, filed with the SEC on June 14, 2016.</u>
4.4	<u>Form of Common Stock Purchase Warrant issued June 3 and 9, 2016, incorporated by reference to Exhibit 4.2 to Nephros, Inc.'s Current Report on Form 8-K, filed with the SEC on June 14, 2016.</u>
4.5	<u>Form of Warrant, incorporated by reference to Exhibit 4.1 to Nephros, Inc.'s Current Report on Form 8-K, filed with the SEC on March 23, 2017.</u>
10.1	<u>Nephros, Inc. 2004 Stock Incentive Plan, incorporated by reference to Exhibit 10.2 to Nephros, Inc.'s Amendment No. 1 to Registration Statement on Form S-1/A (Reg. No. 333-116162), filed with the SEC on July 20, 2004. †</u>
10.2	<u>Amendment No. 1 to Nephros, Inc. 2004 Stock Incentive Plan, incorporated by reference to Exhibit 4.3 to Nephros, Inc.'s Registration Statement on Form S-8 (Reg. No. 333-127264), filed with the SEC on August 5, 2005. †</u>
10.3	<u>Amendment No. 2 to Nephros, Inc. 2004 Stock Incentive Plan, incorporated by reference to Exhibit 10.7 to Nephros, Inc.'s Quarterly Report on Form 10-QSB for the quarter ended September 30, 2007, filed with the SEC on November 13, 2007 (SEC File No. 001-32288). †</u>
10.4	<u>Amendment No. 3 to Nephros, Inc. 2004 Stock Incentive Plan, incorporated by reference to Exhibit 10.51 to Nephros, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2008, filed with the SEC on March 31, 2009 (SEC File No. 001-32288). †</u>
10.5	<u>Amendment No. 4 to Nephros, Inc. 2004 Stock Incentive Plan, incorporated by reference to Exhibit A to Nephros, Inc.'s Definitive Proxy Statement, filed with the SEC on December 2, 2010 (SEC File No. 001-32288). †</u>
10.6	<u>Amendment No. 5 to Nephros, Inc. 2004 Stock Incentive Plan, incorporated by reference to Appendix A to Nephros, Inc.'s Definitive Proxy Statement, filed with the SEC on April 11, 2013. †</u>
10.7	<u>Amendment No. 6 to Nephros, Inc. 2004 Stock Incentive Plan, dated June 14, 2013, incorporated by reference to Exhibit 10.2 to Nephros, Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 2013, filed with the SEC on August 13, 2013. †</u>
10.8	<u>Nephros, Inc. 2015 Equity Incentive Plan, incorporated by reference to Exhibit 10.2 to Nephros, Inc.'s Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, filed with the SEC on May 15, 2015. †</u>

- 10.9 [Form of Incentive Stock Option Agreement under the 2015 Equity Incentive Plan, incorporated by reference to Exhibit 10.3 to Nephros, Inc.'s Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, filed with the SEC on May 15, 2015. †](#)
- 10.10 [Form of Non-Qualified Stock Option Agreement under the 2015 Equity Incentive Plan, incorporated by reference to Exhibit 10.4 to Nephros, Inc.'s Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, filed with the SEC on May 15, 2015. †](#)
- 10.11 [Form of Restricted Stock Agreement under the 2015 Equity Incentive Plan, incorporated by reference to Exhibit 10.5 to Nephros, Inc.'s Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, filed with the SEC on May 15, 2015. †](#)
- 10.12 [Form of Restricted Stock Unit Agreement under the 2015 Equity Incentive Plan, incorporated by reference to Exhibit 10.6 to Nephros, Inc.'s Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, filed with the SEC on May 15, 2015. †](#)
- 10.13 [Employment Agreement, dated April 15, 2015, between the Registrant and Daron Evans, incorporated by reference to Exhibit 10.1 to Nephros, Inc.'s Current Report on Form 8-K, filed with the SEC on April 21, 2015. †](#)
- 10.14 [Letter Agreement dated February 10, 2017, between Andrew Astor and the Registrant, incorporated by reference to Exhibit 10.1 to Nephros, Inc.'s Current Report on Form 8-K, filed with the SEC on February 14, 2017. †](#)
- 10.15 [Nephros, Inc. Director Compensation Policy.*](#)
- 10.16 [License Agreement, dated October 1, 2007, between the Trustees of Columbia University in the City of New York, and the Registrant incorporated by reference to Exhibit 10.41 to Nephros, Inc.'s Annual Report on Form 10-KSB for the year ended December 31, 2007, filed with the SEC on March 31, 2008 \(SEC File No. 001-32288\).](#)
- 10.17 [License Agreement, dated July 1, 2011, between the Registrant and Bellco S.r.l., incorporated by reference to Exhibit 10.62 to Nephros, Inc.'s Current Report on Form 8-K, filed with the SEC on June 27, 2011 \(SEC File No. 001-32288\).](#)
- 10.18 [First Amendment to License Agreement, dated February 19, 2014, between the Registrant and Bellco S.r.l., incorporated by reference to Exhibit 10.1 to Nephros, Inc.'s Current Report on Form 8-K, filed with the SEC on February 25, 2014.](#)
- 10.19 [License and Supply Agreement, dated April 23, 2012, between the Registrant and Medica S.p.A., incorporated by reference to Exhibit 10.1 to Nephros, Inc.'s Current Report on Form 8-K, filed with the SEC on April 26, 2012 \(SEC File No. 001-32288\).](#)
- 10.20 [Second Amendment to License and Supply Agreement, dated May 4, 2015, between the Registrant and Medica S.p.A., incorporated by reference to Exhibit 10.4 to Nephros, Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, filed with the SEC on August 10, 2015.](#)
- 10.21 [Third Amendment to License and Supply Agreement, dated May 5, 2017, between the Registrant and Medica S.p.A., incorporated by reference to Exhibit 10.4 to Nephros, Inc.'s Quarterly Report on Form 10-Q for the quarter ended March 31, 2017, filed with the SEC on May 9, 2017.](#)
- 10.22 [Fourth Amendment to License and Supply Agreement, dated September 26, 2017, between the Registrant and Medica S.p.A., incorporated by reference to Exhibit 10.1 to Nephros, Inc.'s Current Report on Form 8-K, filed with the SEC on September 27, 2017.](#)
- 10.23 [Sublicense Agreement, dated May 6, 2015, between the Registrant and CamelBak Products, LLC, incorporated by reference to Exhibit 10.5 to Nephros, Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, filed with the SEC on August 10, 2015.+](#)
- 10.24 [Registration Rights Agreement, dated September 19, 2007, among the Registrant and the Holders, incorporated by reference to Exhibit 10.3 to Nephros, Inc.'s Current Report on Form 8-K, filed with the SEC on September 25, 2007 \(SEC File No. 001-32288\).](#)

- 10.25 [Form of Registration Rights Agreement, between the Registrant and Lambda Investors LLC, incorporated by reference to Exhibit 10.57 to Nephros, Inc.'s Registration Statement on Form S-1 \(Reg. No. 333-169728\), filed with the SEC on October 1, 2010.](#)
- 10.26 [Registration Rights Agreement, dated February 4, 2013, between the Registrant and Lambda Investors LLC, incorporated by reference to Exhibit 10.68 to Nephros, Inc.'s Registration Statement on Form S-1 \(Reg. No. 333-187036\), filed with the SEC on March 4, 2013.](#)
- 10.27 [First Amendment to Registration Rights Agreement, dated May 23, 2013, between the Registrant and Lambda Investors LLC, incorporated by reference to Exhibit 10.1 to Nephros, Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 2013, filed with the SEC on August 13, 2013.](#)
- 10.28 [Registration Rights Agreement, dated November 12, 2013, between the Registrant and Lambda Investors LLC, incorporated by reference to Exhibit 10.2 to Nephros, Inc.'s Current Report on Form 8-K, filed with the SEC on November 14, 2013.](#)
- 10.29 [First Amendment to Registration Rights Agreement, dated April 14, 2014, between the Registrant and Lambda Investors LLC, incorporated by reference to Exhibit 10.2 to Nephros, Inc.'s Quarterly Report on Form 10-Q for the quarter ended March 31, 2014, filed with the Securities and Exchange Commission on May 14, 2014.](#)
- 10.30 [Registration Rights Agreement, dated August 29, 2014, between the Registrant and Lambda Investors LLC, incorporated by reference to Exhibit 10.2 to Nephros, Inc.'s Current Report on Form 8-K, filed with the SEC on September 3, 2014.](#)
- 10.31 [First Amendment to Registration Rights Agreement, dated September 23, 2014, between the Registrant and Lambda Investors LLC, incorporated by reference to Exhibit 10.5 to Nephros, Inc.'s Quarterly Report on Form 10-Q for the quarter ended September 30, 2014, filed with the SEC on November 13, 2014.](#)
- 10.32 [Securities Purchase Agreement, dated May 12, 2015, among the Company and various accredited investors, incorporated by reference to Exhibit 10.1 to Nephros, Inc.'s Current Report on Form 8-K, filed with the SEC on May 18, 2015.](#)
- 10.33 [Purchase Agreement, dated July 24, 2015, between the Registrant and Lincoln Park Capital Fund, LLC, incorporated by reference to Exhibit 10.1 to Nephros, Inc.'s Current Report on Form 8-K, filed with the SEC on July 27, 2015.](#)
- 10.34 [Registration Rights Agreement, dated July 24, 2015, between the Registrant and Lincoln Park Capital Fund, LLC, incorporated by reference to Exhibit 10.2 to Nephros, Inc.'s Current Report on Form 8-K, filed with the SEC on July 27, 2015.](#)
- 10.35 [Form of Note and Warrant Purchase Agreement entered into on June 3, 2016, between the Registrant and the purchasers of the Notes and Warrants sold by the Registrant on June 3 and 9, 2016, incorporated by reference to Exhibit 10.1 to Nephros, Inc.'s Current Report on Form 8-K, filed with the SEC on June 14, 2016.](#)
- 10.36 [Securities Purchase Agreement dated March 17, 2017, among the Registrant and the Purchasers identified therein, incorporated by reference to Exhibit 10.1 to Nephros, Inc.'s Current Report on Form 8-K, filed with the SEC on March 23, 2017.](#)
- 10.37 [Registration Rights Agreement dated March 17, 2017, among the Registrant and the Purchasers identified therein, incorporated by reference to Exhibit 10.2 to Nephros, Inc.'s Current Report on Form 8-K, filed with the SEC on March 23, 2017.](#)
- 10.38 [Loan and Security Agreement dated August 17, 2017, between the Registrant and Tech Capital, LLC, incorporated by reference to Exhibit 10.1 to Nephros, Inc.'s Current Report on Form 8-K, filed with the SEC on August 23, 2017.](#)
- 14.1 [Code of Ethics and Business Conduct, as amended through April 2, 2007, incorporated by reference to Exhibit 14.1 to Nephros, Inc.'s Current Report on Form 8-K, filed with the SEC on April 6, 2007 \(SEC File No. 001-32288\).](#)

- 21.1 [Subsidiaries of Registrant, incorporated by reference to Exhibit 21.1 to Nephros, Inc.'s Annual Report on Form 10-KSB for the year ended December 31, 2006, filed with the SEC on April 10, 2007 \(SEC File No. 001-32288\).](#)
- 23.1 [Consent of Moody Famiglietti & Andronico, LLP Independent Registered Public Accounting Firm. *](#)
- 24.1 [Power of Attorney, \(included on the signature page\)](#)
- 31.1 [Certification by the Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. *](#)
- 31.2 [Certification by the Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. *](#)
- 32.1 [Certification by the Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. *](#)
- 32.2 [Certification by the Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. *](#)
- 101 Interactive Data File. *

* Filed herewith.

† Management contract or compensatory plan arrangement.

+ Confidential treatment has been granted for certain portions omitted from this exhibit pursuant to Rule 24b-2 under the Securities Exchange Act of 1934, as amended.

SIGNATURES

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

Date: February 26, 2018

NEPHROS, INC.

By: /s/ Daron Evans

Name: Daron Evans

Title: President and Chief Executive Officer (Principal Executive Officer)

POWER OF ATTORNEY

We, the undersigned directors and officers of Nephros, Inc., hereby severally constitute and lawfully appoint Daron Evans, our true and lawful attorney-in-fact with full power to him to sign for us, in our names in the capacities indicated below, the Annual Report on Form 10-K for the fiscal year ended December 31, 2017 of Nephros, Inc. and any and all amendments thereto, and to file the same with all exhibits thereto, and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or their or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Daron Evans</u> Daron Evans	Director, President and Chief Executive Officer (Principal Executive Officer)	February 26, 2018
<u>/s/ Andrew Astor</u> Andrew Astor	Chief Financial Officer (Principal Financial and Accounting Officer)	February 26, 2018
<u>/s/ Arthur H. Amron</u> Arthur H. Amron	Director	February 26, 2018
<u>/s/ Paul A. Mieyal</u> Paul A. Mieyal	Director	February 26, 2018
<u>/s/ Malcolm Persen</u> Malcolm Persen	Director	February 26, 2018
<u>/s/ Moshe Pinto</u> Moshe Pinto	Director	February 26, 2018

**CERTIFICATE OF AMENDMENT
OF
FOURTH AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
NEPHROS, INC.**

The undersigned corporation, a corporation duly organized and existing under the General Corporation Law of the State of Delaware (the “Corporation”), does hereby certify that:

1. The name of the Corporation is Nephros, Inc.
2. The amendment to the Corporation’s Fourth Amended and Restated Certificate of Incorporation set forth below was duly adopted in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware, and has been approved by the stockholders of the Corporation in accordance with Section 242 of the General Corporation Law of the State of Delaware.

The Corporation’s Fourth Amended and Restated Certificate of Incorporation is hereby amended by deleting the text of Article IV, Section 2 in its entirety and replacing it with the following:

“Section 2. Capital Stock. The total authorized capital stock of the Corporation shall be: 95,000,000 shares, consisting of:

- (i) 90,000,000 shares of Common Stock, \$.001 par value per share (the “Common Stock”);

(ii) 5,000,000 shares of preferred stock, \$.001 par value per share (collectively, the "Undesignated Preferred Stock"). Subject to any limitations set forth elsewhere in this Certificate of Incorporation, the shares of Undesignated Preferred Stock may be issued from time to time in one or more series. Subject to any limitations set forth elsewhere in this Certificate of Incorporation, the Board of Directors is hereby authorized, by adopting appropriate resolutions and causing one or more certificates of amendment to be signed, verified and delivered in accordance with the DGCL, to establish from time to time the number of shares to be included in such series, and to fix the powers, preferences and rights of, and the qualifications, limitations and restrictions granted to and imposed upon such Undesignated Preferred Stock. Such powers, preferences and rights of, and the qualifications, limitations and restrictions granted to and imposed upon such Undesignated Preferred Stock may include, but are not limited to, the fixing or alteration of the dividend rights, dividend rate, conversion rights, exchange rights, voting rights, rights and terms of redemption (including sinking fund provisions), the redemption price or prices, and the liquidation preferences of any wholly unissued series of shares of Undesignated Preferred Stock, or any of them. In accordance with the authority hereby granted, the Board may increase or decrease the number of shares of any series of preferred stock, whether or not such preferred stock then constitutes Undesignated Preferred Stock, subsequent to the issuance of shares of that series; provided that any such increase shall be no greater than the total number of authorized shares of Undesignated Preferred Stock at such time, and no such decrease shall result in the number of authorized shares of such series being fewer than the number then outstanding. In case the number of shares of any series of preferred stock, other than Undesignated Preferred Stock, shall be so decreased, the shares constituting such decrease shall become Additional Undesignated Preferred Stock. Any shares of a series of preferred stock, which is designated pursuant to this clause (ii), that were issued but, thereafter, are no longer outstanding shall not resume the status of authorized and unissued shares of such series, but shall instead become authorized and unissued shares of Additional Undesignated Preferred Stock. Except as may otherwise be required by law or this Certificate of Incorporation, the terms of any series of Undesignated Preferred Stock may be amended without the consent of the holders of any other series of the Corporation's preferred stock, or Common Stock. Each twenty (20) of the issued and outstanding shares of Common Stock as of the time the certificate containing this amendment becomes effective (the "Split Effective Time"), shall be combined and converted (the "Reverse Split") automatically, without further action, into one (1) fully paid and non-assessable share of Common Stock. In lieu of any fractional shares to which a holder would otherwise be entitled, the Corporation shall cause its transfer agent to disburse to such holders a cash payment in an amount equal to the product obtained by multiplying (i) a price equal to the average closing sales price of the Corporation's Common Stock for the ten (10) trading days immediately prior to the Split Effective Time, or if no such sale takes place on such days, the average of the closing bid and ask prices for such days, as reported on the OTC Bulletin Board, by (ii) the number of shares of the Corporation's Common Stock held by a holder that otherwise would have been exchanged for a fractional share interest, as determined by the Corporation's Board of Directors. Each holder of record of a certificate which immediately prior to the Split Effective Time represents outstanding shares of Common Stock (an "Old Certificate") shall be entitled to receive upon surrender of such Old Certificate to the Corporation's transfer agent for cancellation, a certificate (a "New Certificate") representing the number of whole shares of Common Stock into and for which the shares formerly represented by such Old Certificate so surrendered are combined and converted. From and after the Split Effective Time, Old Certificates shall represent only the right to receive New Certificates as aforesaid and, to the extent the Corporation so elects, cash pursuant to the provisions hereof."

3. This Certificate of Amendment shall be effective at 5:00 p.m. on the 11th day of March 2011.

IN WITNESS WHEREOF, Nephros, Inc. has caused this Certificate of Amendment to be executed by the undersigned officer, on this the 11th day of March 2011.

NEPHROS, INC.

/s/ Gerald J. Kochanski

Gerald J. Kochanski, Chief Financial Officer

**CERTIFICATE OF AMENDMENT
OF
FOURTH AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
NEPHROS, INC.**

The undersigned corporation, a corporation duly organized and existing under the General Corporation Law of the State of Delaware (the "Corporation"), does hereby certify that:

1. The name of the Corporation is Nephros, Inc.
2. The amendment to the Corporation's Fourth Amended and Restated Certificate of Incorporation set forth below was duly adopted in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware, and has been approved by the stockholders of the Corporation in accordance with Section 242 of the General Corporation Law of the State of Delaware.

The Corporation's Fourth Amended and Restated Certificate of Incorporation is hereby amended by deleting the text of Article IV, Section 2 in its entirety and replacing it with the following:

"Section 2. Capital Stock. The total authorized capital stock of the Corporation shall be: 905,000,000 shares, consisting of:

(i) 900,000,000 shares of Common Stock, \$.001 par value per share (the "Common Stock");

(ii) 5,000,000 shares of preferred stock, \$.001 par value per share (collectively, the "Undesignated Preferred Stock"). Subject to any limitations set forth elsewhere in this Certificate of Incorporation, the shares of Undesignated Preferred Stock may be issued from time to time in one or more series. Subject to any limitations set forth elsewhere in this Certificate of Incorporation, the Board of Directors is hereby authorized, by adopting appropriate resolutions and causing one or more certificates of amendment to be signed, verified and delivered in accordance with the DGCL, to establish from time to time the number of shares to be included in such series, and to fix the powers, preferences and rights of, and the qualifications, limitations and restrictions granted to and imposed upon such Undesignated Preferred Stock. Such powers, preferences and rights of, and the qualifications, limitations and restrictions granted to and imposed upon such Undesignated Preferred Stock may include, but are not limited to, the fixing or alteration of the dividend rights, dividend rate, conversion rights, exchange rights, voting rights, rights and terms of redemption (including sinking fund provisions), the redemption price or prices, and the liquidation preferences of any wholly unissued series of shares of Undesignated Preferred Stock, or any of them. In accordance with the authority hereby granted, the Board may increase or decrease the number of shares of any series of preferred stock, whether or not such preferred stock then constitutes Undesignated Preferred Stock, subsequent to the issuance of shares of that series; provided that any such increase shall be no greater than the total number of authorized shares of Undesignated Preferred Stock at such time, and no such decrease shall result in the number of authorized shares of such series being fewer than the number then outstanding. In case the number of shares of any series of preferred stock, other than Undesignated Preferred Stock, shall be so decreased, the shares constituting such decrease shall become Additional Undesignated Preferred Stock. Any shares of a series of preferred stock, which is designated pursuant to this clause (ii), that were issued but, thereafter, are no longer outstanding shall not resume the status of authorized and unissued shares of such series, but shall instead become authorized and unissued shares of Additional Undesignated Preferred Stock. Except as may otherwise be required by law or this Certificate of Incorporation, the terms of any series of Undesignated Preferred Stock may be amended without the consent of the holders of any other series of the Corporation's preferred stock, or Common Stock."

3. This Certificate of Amendment shall be effective upon filing.

IN WITNESS WHEREOF, Nephros, Inc. has caused this Certificate of Amendment to be executed by the undersigned officer, on this the 10th day of March 2011.

NEPHROS, INC.

/s/ Gerald J. Kochanski

Gerald J. Kochanski, Chief Financial Officer

CERTIFICATE OF AMENDMENT
OF
FOURTH AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
NEPHROS, INC.

Pursuant to Section 242 of the General Corporation Law of the State of Delaware.

Nephros, Inc., a corporation organized and existing under the General Corporation Law of the State of Delaware, does hereby certify and set forth as follows:

1. The name of the Corporation is: Nephros, Inc. (the "Corporation").
2. The Corporation's original Certificate of Incorporation was filed with the Secretary of State of Delaware on April 3, 1997. The Fourth Amended and Restated Certificate of Incorporation, as filed with the Secretary of State of the State of Delaware on June 24, 2005 (the "Certificate"), is hereby amended by Deleting the existing Section 2 of Article IV and replacing it in its entirety with the following:

"Section 2. Capital Stock. The total authorized capital stock of the Corporation shall be: 95,000,000 shares, consisting of:

- (i) 90,000,000 shares of Common Stock, \$.001 par value per share (the "Common Stock");
 - (ii) 5,000,000 shares of preferred stock, \$.001 par value per share (collectively, the "Undesignated Preferred Stock"). Subject to any limitations set forth elsewhere in this Certificate of Incorporation, the shares of Undesignated Preferred Stock may be issued from time to time in one or more series. Subject to any limitations set forth elsewhere in this Certificate of Incorporation, the Board of Directors is hereby authorized, by adopting appropriate resolutions and causing one or more certificates of amendment to be signed, verified and delivered in accordance with the DGCL, to establish from time to time the number of shares to be included in such series, and to fix the powers, preferences and rights of, and the qualifications, limitations and restrictions granted to and imposed upon such Undesignated Preferred Stock. Such powers, preferences and rights of, and the qualifications, limitations and restrictions granted to and imposed upon such Undesignated Preferred Stock may include, but are not limited to, the fixing or alteration of the dividend rights, dividend rate, conversion rights, exchange rights, voting rights, rights and terms of redemption (including sinking fund provisions), the redemption price or prices, and the liquidation preferences of any wholly unissued series of shares of Undesignated Preferred Stock, or any of them. In accordance with the authority hereby granted, the Board may increase or decrease the number of shares of any series of preferred stock, whether or not such preferred stock then constitutes Undesignated Preferred Stock, subsequent to the issuance of shares of that series; provided that any such increase shall be no greater than the total number of authorized shares of Undesignated Preferred Stock at such time, and no such decrease shall result in the number of authorized shares of such series being fewer than the number then outstanding. In case the number of shares of any series of preferred stock, other than Undesignated Preferred Stock, shall be so decreased, the shares constituting such decrease shall become Additional Undesignated Preferred Stock. Any shares of a series of preferred stock, which is designated pursuant to this clause (ii), that were issued but, thereafter, are no longer outstanding shall not resume the status of authorized and unissued shares of such series, but shall instead become authorized and unissued shares of Additional Undesignated Preferred Stock. Except as may otherwise be required by law or this Certificate of Incorporation, the terms of any series of Undesignated Preferred Stock may be amended without the consent of the holders of any other series of the Corporation's preferred stock, or Common Stock."
3. The amendment of the Certificate herein certified has been duly adopted in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.
 4. This Certificate of Amendment will be effective upon filing.

IN WITNESS WHEREOF, Nephros, Inc. has caused this Certificate of Amendment to be signed by its President this 23rd day of October 2009.

Nephros, Inc.

By: /s/ Ernest A. Elgin III

Ernest A. Elgin III

President and Chief Executive Officer

**CERTIFICATE OF AMENDMENT
TO THE
FOURTH AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
NEPHROS, INC.**

It is hereby certified that:

1. The name of the Corporation is: Nephros, Inc. (the "Corporation").
2. The Corporation's Fourth Amended and Restated Certificate of Incorporation, as filed with the Secretary of State of the State of Delaware on June 24, 2005 (the "Certificate"), is hereby amended by deleting the existing Section 2 of Article IV and replacing it in its entirety with the following:

"Section 2. Capital Stock. The total authorized capital stock of the Corporation shall be: 65,000,000 shares, consisting of:

- (i) 60,000,000 shares of Common Stock, \$.001 par value per share (the "Common Stock");
- (ii) 5,000,000 shares of preferred stock, \$.001 par value per share (collectively, the "Undesignated Preferred Stock"). Subject to any limitations set forth elsewhere in this Certificate of Incorporation, the shares of Undesignated Preferred Stock may be issued from time to time in one or more series. Subject to any limitations set forth elsewhere in this Certificate of Incorporation, the Board of Directors is hereby authorized, by adopting appropriate resolutions and causing one or more certificates of amendment to be signed, verified and delivered in accordance with the DGCL, to establish from time to time the number of shares to be included in such series, and to fix the powers, preferences and rights of, and the qualifications, limitations and restrictions granted to and imposed upon such Undesignated Preferred Stock. Such powers, preferences and rights of, and the qualifications, limitations and restrictions granted to and imposed upon such Undesignated Preferred Stock may include, but are not limited to, the fixing or alteration of the dividend rights, dividend rate, conversion rights, exchange rights, voting rights, rights and terms of redemption (including sinking fund provisions), the redemption price or prices, and the liquidation preferences of any wholly unissued series of shares of Undesignated Preferred Stock, or any of them. In accordance with the authority hereby granted, the Board may increase or decrease the number of shares of any series of preferred stock, whether or not such preferred stock then constitutes Undesignated Preferred Stock, subsequent to the issuance of shares of that series; provided that any such increase shall be no greater than the total number of authorized shares of Undesignated Preferred Stock at such time, and no such decrease shall result in the number of authorized shares of such series being fewer than the number then outstanding. In case the number of shares of any series of preferred stock, other than Undesignated Preferred Stock, shall be so decreased, the shares constituting such decrease shall become Additional Undesignated Preferred Stock. Any shares of a series of preferred stock, which is designated pursuant to this clause (ii), that were issued but, thereafter, are no longer outstanding shall not resume the status of authorized and unissued shares of such series, but shall instead become authorized and unissued shares of Additional Undesignated Preferred Stock. Except as may otherwise be required by law or this Certificate of Incorporation, the terms of any series of Undesignated Preferred Stock may be amended without the consent of the holders of any other series of the Corporation's preferred stock, or Common Stock."

3. The amendment of the Certificate herein certified has been duly adopted in accordance with the provisions of Sections 228 and 242 of the General Corporation Law of the State of Delaware.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the undersigned has executed this Certificate as of the 13th day of November, 2007.

By: /s/ Norman J. Barta

Name: Norman J. Barta

Title: Chief Executive Officer

CERTIFICATE OF AMENDMENT
TO THE
FOURTH AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
NEPHROS, INC.

It is hereby certified that:

1. The name of the Corporation is: Nephros, Inc. (the "Corporation").
2. The Corporation's Fourth Amended and Restated Certificate of Incorporation, as filed with the Secretary of State of the State of Delaware on June 24, 2005 (the "Certificate"), as amended, is hereby amended by deleting the existing Section 5 of Article VII and renumbering the remaining sections in Article VII as follows:

"Section 5. Special meetings of the stockholders may be called exclusively by the Board, the Chairman of the Board, the Corporation's President or any Vice President or the Secretary, upon not less than 10 days written notice to the stockholders. Such notice shall state the purpose or purposes of the proposed special meeting. The business transacted at any special meeting shall be limited to the purposes stated when the meeting is called or in the notice of such meeting.

Section 6. Notwithstanding any other provisions of this Certificate of Incorporation or the By-laws of the Corporation (and notwithstanding the fact that some lesser percentage may be specified by law, this Certificate of Incorporation or By-laws of the Corporation), the affirmative vote of the holders of 80% or more of the voting power represented by the outstanding shares of capital stock of the Corporation entitled to vote generally in the election of directors (considered for this purpose as one class) shall be required to amend, alter, change or repeal this Article VII or any portion thereof."

3. The amendment of the Certificate herein certified has been duly adopted in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the undersigned has executed this Certificate as of the 29th of June, 2007.

By: /s/ Norman J. Barta

Name: Norman J. Barta

Title: Chief Executive Officer

**CERTIFICATE OF AMENDMENT
TO THE
FOURTH AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
NEPHROS, INC.**

It is hereby certified that:

1. The name of the Corporation is: Nephros, Inc. (the "Corporation").
2. The Corporation's Fourth Amended and Restated Certificate of Incorporation, as filed with the Secretary of State of the State of Delaware on June 24, 2005 (the "Certificate"), is hereby amended by deleting the existing Section 2 of Article IV and replacing it in its entirety with the following:

"Section 2. Capital Stock. The total authorized capital stock of the Corporation shall be: 45,000,000 shares, consisting of:

- (i) 40,000,000 shares of Common Stock, \$.001 par value per share (the "Common Stock");
- (ii) 5,000,000 shares of preferred stock, \$.001 par value per share (collectively, the "Undesignated Preferred Stock"). Subject to any limitations set forth elsewhere in this Certificate of Incorporation, the shares of Undesignated Preferred Stock may be issued from time to time in one or more series. Subject to any limitations set forth elsewhere in this Certificate of Incorporation, the Board of Directors is hereby authorized, by adopting appropriate resolutions and causing one or more certificates of amendment to be signed, verified and delivered in accordance with the DGCL, to establish from time to time the number of shares to be included in such series, and to fix the powers, preferences and rights of, and the qualifications, limitations and restrictions granted to and imposed upon such Undesignated Preferred Stock. Such powers, preferences and rights of, and the qualifications, limitations and restrictions granted to and imposed upon such Undesignated Preferred Stock may include, but are not limited to, the fixing or alteration of the dividend rights, dividend rate, conversion rights, exchange rights, voting rights, rights and terms of redemption (including sinking fund provisions), the redemption price or prices, and the liquidation preferences of any wholly unissued series of shares of Undesignated Preferred Stock, or any of them. In accordance with the authority hereby granted, the Board may increase or decrease the number of shares of any series of preferred stock, whether or not such preferred stock then constitutes Undesignated Preferred Stock, subsequent to the issuance of shares of that series; provided that any such increase shall be no greater than the total number of authorized shares of Undesignated Preferred Stock at such time, and no such decrease shall result in the number of authorized shares of such series being fewer than the number then outstanding. In case the number of shares of any series of preferred stock, other than Undesignated Preferred Stock, shall be so decreased, the shares constituting such decrease shall become Additional Undesignated Preferred Stock. Any shares of a series of preferred stock, which is designated pursuant to this clause (ii), that were issued but, thereafter, are no longer outstanding shall not resume the status of authorized and unissued shares of such series, but shall instead become authorized and unissued shares of Additional Undesignated Preferred Stock. Except as may otherwise be required by law or this Certificate of Incorporation, the terms of any series of Undesignated Preferred Stock may be amended without the consent of the holders of any other series of the Corporation's preferred stock, or Common Stock."

3. The amendment of the Certificate herein certified has been duly adopted in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the undersigned has executed this Certificate as of the 4th day of June, 2007.

By: /s/ Norman J. Barta

Name: Norman J. Barta

Title: Chief Executive Officer

FOURTH AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
NEPHROS, INC.

(Pursuant to Sections 242 and 245 of the
General Corporation Law of the State of Delaware)

NEPHROS, INC., a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware,

DOES HEREBY CERTIFY:

FIRST: That the name of the corporation is NEPHROS, INC. and that this corporation was originally incorporated pursuant to the General Corporation Law on April 3, 1997.

SECOND: That the Board of this corporation duly adopted resolutions proposing to amend and restate the Certificate of Incorporation of this corporation, declaring said amendment and restatement to be advisable, and authorizing the appropriate officers of this corporation to submit said amendment and restatement to the stockholders of the corporation for their approval. The resolution setting forth the proposed amendment and restatement is as follows:

RESOLVED, that the Certificate of Incorporation of this corporation be amended and restated in its entirety to read as follows:

ARTICLE I

The name of this corporation is Nephros, Inc. (referred to herein as the "Corporation").

ARTICLE II

The address of the Corporation's registered office in the State of Delaware is 2711 Centerville Road, Suite 400 in the City of Wilmington, 19808, County of New Castle. The name of the Corporation's registered agent at such address is Corporation Service Company.

ARTICLE III

The nature of the business or purposes to be conducted or promoted by the Corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of the State of Delaware.

ARTICLE IV

Section 1. Certain Definitions. As used in this Amended and Restated Certificate of Incorporation (the "Certificate of Incorporation"), the following terms shall have the following meanings:

"Board" means the Board of Directors of the Corporation.

“DGCL” means the Delaware General Corporation Law, as the same may be amended or supplemented from time to time.

Section 2. Capital Stock. The total authorized capital stock of the Corporation shall be: 30,000,000 shares, consisting of:

- (i) 25,000,000 shares of Common Stock, \$.001 par value per share (the “Common Stock”);
- (ii) 5,000,000 shares of preferred stock, \$.001 par value per share (collectively, the “Undesignated Preferred Stock”). Subject to any limitations set forth elsewhere in this Certificate of Incorporation, the shares of Undesignated Preferred Stock may be issued from time to time in one or more series. Subject to any limitations set forth elsewhere in this Certificate of Incorporation, the Board of Directors is hereby authorized, by adopting appropriate resolutions and causing one or more certificates of amendment to be signed, verified and delivered in accordance with the DGCL, to establish from time to time the number of shares to be included in such series, and to fix the powers, preferences and rights of, and the qualifications, limitations and restrictions granted to and imposed upon such Undesignated Preferred Stock. Such powers, preferences and rights of, and the qualifications, limitations and restrictions granted to and imposed upon such Undesignated Preferred Stock may include, but are not limited to, the fixing or alteration of the dividend rights, dividend rate, conversion rights, exchange rights, voting rights, rights and terms of redemption (including sinking fund provisions), the redemption price or prices, and the liquidation preferences of any wholly unissued series of shares of Undesignated Preferred Stock, or any of them. In accordance with the authority hereby granted, the Board may increase or decrease the number of shares of any series of preferred stock, whether or not such preferred stock then constitutes Undesignated Preferred Stock, subsequent to the issuance of shares of that series; provided that any such increase shall be no greater than the total number of authorized shares of Undesignated Preferred Stock at such time, and no such decrease shall result in the number of authorized shares of such series being fewer than the number then outstanding. In case the number of shares of any series of preferred stock, other than Undesignated Preferred Stock, shall be so decreased, the shares constituting such decrease shall become Additional Undesignated Preferred Stock. Any shares of a series of preferred stock, which is designated pursuant to this clause (ii), that were issued but, thereafter, are no longer outstanding shall not resume the status of authorized and unissued shares of such series, but shall instead become authorized and unissued shares of Additional Undesignated Preferred Stock. Except as may otherwise be required by law or this Certificate of Incorporation, the terms of any series of Undesignated Preferred Stock may be amended without the consent of the holders of any other series of the Corporation’s preferred stock, or Common Stock.

ARTICLE V

Whenever a compromise or arrangement is proposed between this Corporation and its creditors or any class of them and/or between this Corporation and its stockholders or any class of them, any court of equitable jurisdiction within the State of Delaware may, on the application in a summary way of this Corporation or of any creditor or stockholder thereof or on the application of any receiver or receivers appointed for this Corporation under ss. 291 the DGCL (or any successor section) or on the application of trustees in dissolution or of any receiver or receivers appointed for this Corporation under ss. 279 of the DGCL (or any successor section) order a meeting of the creditors or class of creditors, and/or of the stockholders or class of stockholders of this Corporation, as the case may be, to be summoned in such manner as the said court directs. If a majority in number representing three fourths in value of the creditors or class of creditors, and/or of the stockholders or class of stockholders of this Corporation, as the case may be, agree to any compromise or arrangement and to any reorganization of this Corporation as consequence of such compromise or arrangement, the said compromise or arrangement and the said reorganization shall, if sanctioned by the court to which the said application has been made, be binding on all the creditors or class of creditors, and/or on all the stockholders or class of stockholders, of this Corporation, as the case may be, and also on this Corporation.

ARTICLE VI

The Board of this Corporation shall have the power to adopt, amend or repeal By-laws of this Corporation, subject to the power of the stockholders of this Corporation to adopt By-laws and to amend or repeal By-laws adopted by the Board.

ARTICLE VII

For the management of the business and for the conduct of the affairs of the Corporation, and in further definition, limitation, and regulation of the powers of the Corporation and of its directors and of its stockholders or any class thereof, as the case may be, it is further provided:

Section 1. The management of the business and the conduct of the affairs of the Corporation shall be vested in its Board of Directors. The number of directors which shall constitute the whole Board of Directors shall be fixed by, or in the manner provided in, the By-laws. The phrase "whole Board" and the phrase "total number of directors" shall be deemed to have the same meaning, to wit, the total number of directors which the Corporation would have if there were no vacancies. No election of directors need be by written ballot.

Section 2. The Board shall be divided into three classes, as nearly equal in number as the then total number of directors constituting the entire Board permits, with the term of office of one or another of the three classes expiring each year. The Board shall by resolution initially divide the Board into three classes, with the term of office of the first class to expire at the Annual Meeting of Stockholders to be held during 2005, the term of office of the second class to expire at the Annual Meeting of Stockholders to be held during 2006 and the term of office of the third class to expire at the Annual Meeting of Stockholders to be held during 2007.

Section 3. Commencing with the first Annual Meeting of Stockholders following September 24, 2004, the directors elected at an annual meeting of stockholders to succeed those whose terms then expire shall be identified as being directors of the same class as the directors whom they succeed, and each of them shall hold office until the third succeeding annual meeting of stockholders and until such director's successor is elected and has been qualified. Any vacancies in the Board for any reason, and any created directorships resulting from any increase in the number of directors, may be filled by the vote of not less than a majority of the members of the Board then in office, although less than a quorum, and any directors so chosen shall hold office until the next election of the class for which such directors shall have been chosen and until their successors shall be elected and qualified. Notwithstanding the foregoing, and except as otherwise required by law, whenever the holders of any one or more series of preferred stock shall have the right, voting separately as a class, to elect one or more directors of the Corporation, the then authorized number of directors shall be increased by the number of directors so to be elected, and the terms of the director or directors elected by such holders shall expire at the next succeeding annual meeting of stockholders.

Section 4. Notwithstanding any other provisions of this Certificate of Incorporation or the By-laws of the Corporation, any director or the entire Board of the Corporation may be removed at any time, but only for cause and only by the affirmative vote of the holders of a majority of the outstanding shares of capital stock of the Corporation entitled to vote generally in the election of directors (considered for this purpose as one class, with preferred stock, the terms of which provide for voting as to such matters, voting on an as-converted basis, unless otherwise provided in the amendment to this Certificate of Incorporation defining the rights of the holders of such preferred stock) cast at a meeting of the stockholders called for that purpose. Notwithstanding the foregoing, and except as otherwise required by law, whenever the holders of any one or more series of preferred stock shall have the right, voting separately as a class, to elect one or more directors of the Corporation, the provisions of this Section 4 shall not apply with respect to the election of the director or directors elected by such holders of preferred stock.

Section 5. Notwithstanding any other provisions of this Certificate of Incorporation or the By-laws of the Corporation, any action by the Corporation's stockholders may only be effected at an annual or special meeting of the Corporation's stockholders called in compliance with Section 6 below, or pursuant to an unanimous written consent of the Corporation's stockholders in compliance with § 228 of the DGCL (or any successor section of the DGCL).

Section 6. Special meetings of the stockholders may be called exclusively by the Board, the Chairman of the Board, the Corporation's President or any Vice President or the Secretary, upon not less than 10 days written notice to the stockholders. Such notice shall state the purpose or purposes of the proposed special meeting. The business transacted at any special meeting shall be limited to the purposes stated when the meeting is called or in the notice of such meeting.

Section 7. Notwithstanding any other provisions of this Certificate of Incorporation or the By-laws of the Corporation (and notwithstanding the fact that some lesser percentage may be specified by law, this Certificate of Incorporation or the By-laws of the Corporation), the affirmative vote of the holders of 80% or more of the voting power represented by the outstanding shares of capital stock of the Corporation entitled to vote generally in the election of directors (considered for this purpose as one class) shall be required to amend, alter, change or repeal this Article VII or any portion hereof.

ARTICLE VIII

The personal liability of the directors of the Corporation is hereby eliminated to the fullest extent permitted by the provisions of paragraph (7) of subsection (b) of § 102 of the DGCL, (or any successor section of the DGCL).

ARTICLE IX

The Corporation shall, to the fullest extent permitted by the provisions of § 145 of the DGCL, (or any successor section of the DGCL), indemnify any and all persons whom it shall have power to indemnify under said section from and against any and all of the expenses, liabilities, or other matters referred to in or covered by said section, and the indemnification provided for herein shall not be deemed exclusive of any other rights to which those indemnified may be entitled under any By-law, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be a director, officer, employee, or agent and shall inure to the benefit of the heirs, executors, and administrators of such a person.

ARTICLE X

Except as may be otherwise provided in this Certificate of Incorporation, from time to time any of the provisions of this Certificate of Incorporation may be amended, altered, or repealed, and other provisions authorized by the laws of the State of Delaware at the time in force may be added or inserted in the manner and at the time prescribed by said laws, and all rights at any time conferred upon the stockholders of the Corporation by this Certificate of Incorporation are granted subject to the provisions of this Article X.

THIRD: That the foregoing amendment and restatement was approved by the holders of the requisite number of shares of said Corporation at a meeting called and held upon notice in accordance with § 222 of the DGCL.

FOURTH: That said amendment and restatement was duly adopted in accordance with the provisions of §§ 242 and 245 of the DGCL.

IN WITNESS WHEREOF, said Corporation has caused this Fourth Amended and Restated Certificate of Incorporation to be signed by its Chief Executive Officer this 24th day of June, 2005.

NEPHROS, INC.

By: /s/ Norman Barta

Name: Norman Barta

Title: Chief Executive Officer

Nephros, Inc.
Director Compensation

Members of the Board of Directors (the "Board") of Nephros, Inc. (the "Company") receive a \$20,000 annual retainer, \$1,500 per meeting for each quarterly Board meeting attended and reimbursement for expenses incurred in connection with serving on the Board. The Chairman of the Audit Committee is paid a \$10,000 annual retainer and \$1,000 per meeting for meetings of the Audit Committee, with a maximum of eight meetings per year.

The Company grants each non-employee director who first joins the Board, immediately upon such director joining the Board, the number of options equal to the product of 0.0011 multiplied by the total number of outstanding shares of common stock of the Company on a fully-diluted basis. The exercise price per share will be equal to the fair market value price per share of the common stock of the Company on the date of grant. The Company will also grant annually to each non-employee director the number of options equal to the product of 0.0006 multiplied by the total number of outstanding shares of common stock of the Company on a fully-diluted basis. The exercise price per share will be equal to the fair market value price per share of the common stock of the Company on the date of grant. These non-employee director options vest in three equal installments on each of the date of grant and the first and second anniversaries thereof.

Executive officers of the Company do not receive additional compensation for service on the Board if any of them so serve.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Nephros, Inc.
South Orange, New Jersey

We hereby consent to the incorporation by reference in the Registration Statements of Nephros, Inc. on Form S-8 (Nos. 333-127264; 333-148236; 333-188592; 333-205167) of our report dated February 26, 2018, relating to the consolidated financial statements of Nephros, Inc. and Subsidiary, as of and for the years ended December 31, 2017 and 2016, which appears in this Annual Report on Form 10-K for the year ended December 31, 2017.

/s/ Moody Famiglietti & Andronico, LLP

Tewksbury, Massachusetts
February 26, 2018

CERTIFICATION OF THE CHIEF EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Daron Evans, certify that:

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

Dated: February 26, 2018

/s/ Daron Evans

Daron Evans
President and Chief Executive Officer
(Principal Executive Officer)

CERTIFICATION OF THE CHIEF FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Andrew Astor, certify that:

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

Dated: February 26, 2018

/s/ Andrew Astor

Andrew Astor
Chief Financial Officer
(Principal Financial and Accounting Officer)

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

In connection with the Annual Report on Form 10-K of Nephros, Inc. (the "Company") for the fiscal year ended December 31, 2017 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Daron Evans, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: February 26, 2018

/s/ Daron Evans

Daron Evans
President and Chief Executive Officer
(Principal Executive Officer)

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

In connection with the Annual Report on Form 10-K of Nephros, Inc. (the "Company") for the fiscal year ended December 31, 2017 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Andrew Astor, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: February 26, 2018

/s/ Andrew Astor

Andrew Astor
Chief Financial Officer
(Principal Financial and Accounting Officer)
