

SANUWAVE Health, Inc.  
Form S-1/A  
February 13, 2018

As filed with the Securities and Exchange Commission on February 12, 2018  
Registration No. 333-213774

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

AMENDMENT NO. 3 TO  
FORM S-1

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

SANUWAVE Health, Inc.  
(Exact name of registrant as specified in its charter)

Nevada	3841	20-1176000
(State or other Jurisdiction of Incorporation or Organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification No.)

3360 Martin Farm Road, Suite 100  
Suwanee, Georgia 30024  
(770) 419-7525  
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Kevin A. Richardson, II  
Acting Chief Executive Officer  
SANUWAVE Health, Inc.  
3360 Martin Farm Road, Suite 100  
Suwanee, Georgia 30024  
(770) 419-7525

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies of all communications, including communications sent to agent for service, should be sent to:

John C. Ethridge, Jr., Esq.  
Smith, Gambrell & Russell, LLP  
Promenade II, Suite 3100  
1230 Peachtree Street, N.E.  
Atlanta, Georgia 30309  
(404) 815-3500

Approximate date of commencement of proposed sale to the public: As soon as practicable after this registration statement becomes effective.

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If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box:

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

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

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



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

Large accelerated filer    Accelerated filer  
Non-accelerated filer    Smaller reporting company

#### CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered (1)	Amount to be registered	Proposed maximum offering price per share (4)	Proposed maximum aggregate offering price	Amount of registration fee (5)
Common Stock, \$0.001 par value	28,541,183	\$0.179000	\$5,108,871.76	\$592.12
Common Stock, \$0.001 par value (2)	30,356,668	\$0.179000	\$5,433,843.57	\$629.78
Common Stock, \$0.001 par value (3)	2,830,000	\$0.179000	\$506,570.00	\$58.71
Total (5)	61,727,851		\$11,049,285.33	\$1,280.61

(1)  
Pursuant to Rule 416, the securities being registered hereunder include such indeterminate number of additional shares of common stock as may be issued after the date hereof as a result of stock splits, stock dividends or similar transactions.

(2)  
Represents shares of common stock issuable upon the exercise of warrants issued to the selling shareholders.

(3)  
Represents shares of common stock issuable upon the exercise of warrants issued to the placement agent.

(4)  
Estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(c) under the Securities Act of 1933, as amended, based on the per share average of the high and low reported prices for the common stock on the Over the Counter Bulletin Board as of February 2, 2018.

(5)  
Pursuant to the registration statement on Form S-1, SEC File No. 333-208676 which was declared effective on February 16, 2016, the registrant registered 23,545,114 shares of common stock for resale and \$4,400,000 of units and common stock underlying warrants and in connection therewith paid a registration fee of \$632.76, of which \$2,418,900 of such units and common stock underlying warrants remained registered and unsold. Pursuant to Rule 457(p), the registration fee associated with the unsold securities is offset from the registration fee associated with this registration statement and such unsold securities from the previous registration statement are deemed deregistered. Accordingly, the registration fee due in connection with this filing is offset by \$433.26 (based on \$243.58 for the \$2,418,900 of securities unsold by the Registrant plus \$189.68 for the \$1,883,609 of securities unsold by selling shareholders thereunder) for such deregistered securities.

Pursuant to Rule 429 under the Securities Act, the prospectus contained in this Registration Statement is a combined prospectus and also relates to an aggregate of (a) up to 28,660,004 shares of common stock issuable upon the exercise of warrants that were registered and sold to certain selling stockholders described herein, 2,051,501 shares of common stock issuable upon the exercise of warrants that were registered and issued to certain placement agents described herein and 23,545,114 shares of common stock that were registered for resale (the "2016 Previously Registered Securities") under the registrant's Registration Statement on Form S-1 (File No. 333-208676), which was declared effective on February 17, 2016 (the "2016 Prior Registration Statement"); and (b) up to 1,561,348 shares of common stock issuable upon the exercise of warrants that were registered (together with the 2016 Previously Registered Securities, the "Previously Registered Securities") under the registrant's Registration Statement on Form S-1 (File No. 333-195263), which was declared effective on May 6, 2014 (together with the 2016 Prior Registration Statement, the "Prior Registration Statements"). Upon effectiveness, this Registration Statement constitutes a post-effective amendment to each of the Prior Registration Statements, which post-effective amendments shall hereafter become effective concurrently with the effectiveness of this Registration Statement in accordance with Section 8(c) of the Securities Act. If any Previously Registered Securities under the Prior Registration Statements are offered and sold before the effective date of this Registration Statement, the amount of the Previously Registered Securities so sold will not be included in the prospectus hereunder. The filing fee payable in connection with each of the Prior Registration Statements was previously paid at the time of its initial filing. The breakdown of each of the total share counts in this paragraph corresponding to each Prior Registration Statement has been provided in the three additional tables immediately following the Selling Stockholder's Table in the section entitled "Selling Stockholders" of the prospectus contained in this Registration Statement.



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

#### EXPLANATORY NOTE

Pursuant to Rule 429 under the Securities Act, the prospectus contained in this Registration Statement is a combined prospectus and also relates to an aggregate of (a) up to 28,660,004 shares of common stock issuable upon the exercise of warrants that were registered and sold to certain selling stockholders described herein, 2,051,501 shares of common stock issuable upon the exercise of warrants that were registered and issued to certain placement agents described herein and 23,545,114 shares of common stock that were registered for resale (the "2016 Previously Registered Securities") under the registrant's Registration Statement on Form S-1 (File No. 333-208676), which was declared effective on February 17, 2016 (the "2016 Prior Registration Statement"); and (b) up to 1,561,348 shares of common stock issuable upon the exercise of warrants that were registered (together with the 2016 Previously Registered Securities, the "Previously Registered Securities") under the registrant's Registration Statement on Form S-1 (File No. 333-195263), which was declared effective on May 6, 2014 (together with the 2016 Prior Registration Statement, the "Prior Registration Statements"). Upon effectiveness, this Registration Statement constitutes a post-effective amendment to each of the Prior Registration Statements, which post-effective amendments shall hereafter become effective concurrently with the effectiveness of this Registration Statement in accordance with Section 8(c) of the Securities Act. If any Previously Registered Securities under the Prior Registration Statements are offered and sold before the effective date of this Registration Statement, the amount of the Previously Registered Securities so sold will not be included in the prospectus hereunder. The filing fee payable in connection with each of the Prior Registration Statements was previously paid at the time of its initial filing.

This Registration Statement is also being filed to register 28,541,183 additional shares of the registrant's common stock for resale by selling shareholders, 30,356,668 additional shares of the registrant's common stock issuable upon the exercise of warrants that were sold to selling shareholders, and 2,830,000 additional shares of the registrant's common stock issuable upon the exercise of warrants that were issued to the placement agent.

The breakdown of each of the total share counts in this Explanatory Note corresponding to each Prior Registration Statement has been provided in the three additional tables immediately following the Selling Stockholder's Table in the section entitled "Selling Stockholders" of the prospectus contained in this Registration Statement.





The information in this prospectus is not complete and may be changed. Neither the Company, nor our selling stockholders, may sell the securities described herein until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell the securities and we are not soliciting offers to buy these securities in any state or jurisdiction where the offer or sale is not permitted.

Preliminary Prospectus, Subject to Completion, Dated February 12, 2018.

117,545,818 Shares  
(Common Stock, \$0.001 par value)

This prospectus relates to the issuance or sale of up to 117,545,818 shares of our Common Stock, consisting of (1) sale by the selling stockholders listed in the prospectus of 52,086,297 outstanding shares of Common Stock by such selling stockholders, (2) issuance of 60,578,020 shares of Common Stock upon the exercise of certain warrants held by such selling stockholders and (3) issuance of 4,881,501 shares of Common Stock upon exercise of certain warrants held by certain placement agents for the private placements described herein. The shares offered by this prospectus may be sold by the selling stockholders, from time to time, in the over-the-counter market or other national securities exchange or automated interdealer quotation system on which our Common Stock is then listed or quoted, through negotiated transactions or otherwise at market prices prevailing at the time of sale or at negotiated prices, or otherwise in compliance with the “Plan of Distribution” contained herein.

We will receive none of the proceeds from the sale of the shares by the selling stockholders. We may receive proceeds upon the exercise of outstanding warrants for shares of Common Stock covered by this prospectus if the warrants are exercised for cash. We will bear all expenses of registration incurred in connection with this offering, but all selling and other expenses incurred by the selling stockholders will be borne by them.

We agreed to pay each Placement Agent described herein a fee of (i) ten percent (10%) of the aggregate purchase price of the securities sold in the private placement and (ii) warrants to purchase ten percent (10%) of the number of shares sold in the private placement. The Placement Agents, collectively, were initially issued warrants to purchase 5,831,667 shares of Common Stock at an exercise price of \$0.08 per share, of which warrants relating to 950,166 shares have previously been exercised and such shares were issued pursuant to an effective registration statement and are not being offered hereunder. The registration statement of which this prospectus is a part also covers the shares of Common Stock issuable from time to time upon the exercise of the placement agent’s warrants. Certain placement agent’s warrants and the underlying shares of Common Stock are subject to compliance with the requirements of the Financial Industry Regulatory Authority, Inc., or FINRA.

See “Plan of Distribution” beginning on page 22 of this prospectus for more information regarding the above compensation payable to the placement agent.

Our Common Stock is quoted on the OTC Bulletin Board under the symbol SNWV.OB. The high and low bid prices for shares of our Common Stock on February 2, 2018, were \$0.175 and \$0.183 per share, respectively, based upon bids that represent prices quoted by broker-dealers on the OTC Bulletin Board. These quotations reflect inter-dealer prices, without retail mark-up, mark-down or commissions, and may not represent actual transactions.

Investing in our securities involves a high degree of risk. See “Risk Factors” beginning on page 6 of this prospectus for a discussion of information that should be considered in connection with an investment in our securities.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ADEQUACY OR ACCURACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A

CRIMINAL OFFENSE.

Brokers or dealers effecting transactions in these securities should confirm that the securities are registered under the applicable state law or that an exemption from registration is available.

The date of this prospectus is \_\_\_\_\_, 2018



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## PROSPECTUS SUMMARY

This summary highlights selected information contained in greater detail elsewhere in this prospectus. This summary may not contain all of the information that you should consider before investing in our Common Stock. You should carefully read the entire prospectus, including “Risk Factors” and the consolidated financial statements, before making an investment decision.

Unless the context requires otherwise, the words “SANUWAVE,” “we,” “Company,” “us,” and “our” in this prospectus refer to SANUWAVE Health, Inc. and our subsidiaries.

### About This Prospectus

You may rely only on the information contained in this prospectus or that we have referred you to. We have not authorized anyone to provide you with different information. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities other than the securities offered by this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities in any circumstances in which such offer or solicitation is unlawful. Neither the delivery of this prospectus nor any sale made in connection with this prospectus shall, under any circumstances, create any implication that there has been no change in our affairs since the date of this prospectus or that the information contained by reference to this prospectus is correct as of any time after its date.

### Our Company

We are a shock wave technology company using a patented system of noninvasive, high-energy, acoustic shock waves for regenerative medicine and other applications. Our initial focus is regenerative medicine – utilizing noninvasive, acoustic shock waves to produce a biological response resulting in the body healing itself through the repair and regeneration of tissue, musculoskeletal, and vascular structures. Our lead regenerative product in the United States is the dermaPACE® device, used for treating diabetic foot ulcers, is cleared in the United States by the Food and Drug Administration.

Our portfolio of healthcare products and product candidates activate biologic signaling and angiogenic responses, including new vascularization and microcirculatory improvement, helping to restore the body’s normal healing processes and regeneration. We intend to apply our Pulsed Acoustic Cellular Expression (PACE®) technology in wound healing, orthopedic, plastic/cosmetic and cardiac conditions. We will begin marketing our dermaPACE System for sale in the United States in 2018. We generate our revenues from sales of the European Conformity Marking (CE Mark) devices and accessories in Europe, Canada, Asia and Asia/Pacific.

We believe we have demonstrated that our patented technology is safe and effective in stimulating healing in chronic conditions of the foot and the elbow through our United States FDA Class III PMA approved OssaTron® device, and in the stimulation of bone and chronic tendonitis regeneration in the musculoskeletal environment through the utilization of our OssaTron, Evotron®, and orthoPACE® devices in Europe and Asia. Our lead product candidate for the global wound care market, dermaPACE, has received the CE Mark allowing for commercial use on acute and chronic defects of the skin and subcutaneous soft tissue.

### Product Overview; Strategy

We are focused on developing our Pulsed Acoustic Cellular Expression (PACE) technology to activate healing in:

wound conditions, including diabetic foot ulcers, venous and arterial ulcers, pressure sores, burns and other skin eruption conditions;

orthopedic applications, such as eliminating chronic pain in joints from trauma, arthritis or tendons/ligaments inflammation, speeding the healing of fractures (including nonunion or delayed-union conditions), improving bone density in osteoporosis, fusing bones in the extremities and spine, and other potential sports injury applications;

plastic/cosmetic applications such as cellulite smoothing, graft and transplant acceptance, skin tightening, scarring and other potential aesthetic uses; and

cardiac applications for removing plaque due to atherosclerosis improving heart muscle performance.

In addition to healthcare uses, our high-energy, acoustic pressure shock waves, due to their powerful pressure gradients and localized cavitation effects, may have applications in secondary and tertiary oil exploitation, for cleaning industrial waters, for sterilizing food liquids and finally for maintenance of industrial installations by disrupting biofilms formation. Our business approach will be through licensing and/or partnership opportunities.

For more information about the Company, see the section entitled “Business” in this prospectus.





## Risks Associated with Our Business

Our business is subject to numerous risks, as more fully described in the section entitled “Risk Factors” immediately following this prospectus summary. We have a limited operating history and have incurred substantial losses since inception. We expect to continue to incur losses for the foreseeable future and are unable to predict the extent of future losses or when we will become profitable, if at all. Our products are in various stages of research and development, with only the dermaPACE System having received regulatory approval in the United States. Our ability to generate revenue in the future will depend heavily on the successful development and commercialization of our product candidates. Even if we succeed in developing and commercializing one or more of our product candidates, we may never generate sufficient sales revenue to achieve and sustain profitability. We may be unable to maintain and protect our intellectual property, which could have a substantial impact on our ability to generate revenue. Our products are subject to regulation by governmental authorities in the United States and in other countries. Failure to comply with such regulations or to receive the necessary approvals or clearances for our product and product candidates may have a material adverse effect on our business.

## Trading Market

Our Common Stock is quoted on the OTCQB under the symbol “SNWV.”

## Corporate Information

We were incorporated in the State of Nevada on May 6, 2004, under the name Rub Music Enterprises, Inc. (“RME”). SANUWAVE, Inc. was incorporated in the State of Delaware on July 21, 2005. In December 2006, Rub Music Enterprises, Inc. ceased operations and became a shell corporation.

On September 25, 2009, RME and RME Delaware Merger Sub, Inc., a Nevada corporation and wholly-owned subsidiary of RME (the “Merger Sub”) entered into a reverse merger agreement with SANUWAVE, Inc. Pursuant to the Merger Agreement, the Merger Sub merged with and into SANUWAVE, Inc., with SANUWAVE, Inc. as the surviving entity (the “Merger”) and a wholly-owned subsidiary of the Company.

In November 2009, we changed our name to SANUWAVE Health, Inc. Our principal executive offices are located at 3360 Martin Farm Road, Suite 100, Suwanee, Georgia 30024, and our telephone number is (770) 419-7525. Our website address is [www.sanuwave.com](http://www.sanuwave.com). The information on our website is not a part of this prospectus.

## About this Offering

### Securities being offered by the Selling Stockholders

Total Common Stock being offered	117,545,818 shares
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- Outstanding Common Stock by the selling shareholders	52,086,297 shares
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- Common Stock issuable upon exercise of certain warrants	60,578,020 shares
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- Common Stock  
issuable upon exercise of 4,881,501 shares  
placement agent warrants

Use of Proceeds                      We will not receive any proceeds from the sale of shares of Common Stock by selling stockholders in this offering, except cash for the warrant exercise, which if all such warrants are exercised, would be approximately \$5,164,003. Proceeds, if any, received from the exercise of such warrants, would be used for working capital purposes.

Risk Factors                              See “Risk Factors” beginning on page 3 of this prospectus for a discussion of factors you should carefully consider before deciding to invest in our Common Stock.

OTCQB                                      SNWV



## Summary Financial Information

The summary financial information set forth below is derived from and should be read in conjunction with our consolidated financial statements, including the notes thereto, appearing at the end of this prospectus.

	Nine Months Ended		Year Ended	
	September 30,	September 30,	December 31,	December 31,
	2017	2016	2016	2015

## Consolidated Statement of Operations Data

Revenue	\$422,199	\$728,382	\$1,376,063	\$965,501
Net loss	\$(2,760,794)	\$(3,986,509)	\$(6,439,040)	\$(4,810,285)
Weighted average shares outstanding	138,711,527	97,798,261	107,619,869	63,025,202
Net loss per share - basic and diluted	\$(0.02)	\$(0.04)	\$(0.06)	\$(0.08)

## Consolidated Balance Sheet Data (at end of period)

Working deficit	\$(9,096,580)	\$(355,723)	\$(7,002,324)	\$(851,805)
Total assets	\$565,310	\$1,135,428	\$1,004,870	\$958,361
Total liabilities	\$9,588,573	\$6,749,089	\$7,916,470	\$6,836,197
Total stockholders' deficit	\$(9,023,263)	\$(5,613,661)	\$(6,911,600)	\$(5,877,836)

## RISK FACTORS

Investing in our Common Stock involves a high degree of risk. You should carefully consider the following risk factors and all other information contained in this prospectus, including the consolidated financial statements and the related notes appearing at the end of this prospectus, before purchasing our Common Stock. If any of the following risks actually occur, they may materially harm our business and our financial condition and results of operations. In any such event, the market price of our Common Stock could decline and you could lose all or part of your investment.

## Risks Related to our Business

We generate only minimal revenues and we continue to experience operating losses.

Since our inception, we have experienced recurring losses from operations. As of September 30, 2017, we had an accumulated deficit of \$102,194,242. We generate only minimal revenues and we continue to experience operating losses. We anticipate that our operating losses will continue and we will continue to incur losses in future periods unless and until we are successful in significantly increasing our revenues and cash flow. There are no assurances that we will be able to increase our revenues and cash flow to a level which supports profitable operations and provides sufficient funds to pay our obligations.

We will be required to raise additional funds to finance the commercialization of the dermaPACE; we may not be able to do so, and/or the terms of any financings may not be advantageous to us.

The continuation of our business is dependent upon raising additional capital. At September 30, 2017, we had cash and cash equivalents totaling \$40,226. For the nine months ended September 30, 2017 and 2016, the net cash used by operating activities was \$944,831 and \$2,708,973, respectively. For the years ended December 31, 2016 and 2015, the net cash used by operating activities was \$3,199,453 and \$3,473,456, respectively. We need additional financial support for the commercialization of the dermaPACE, which may include: raising additional capital through the issuance of common or preferred stock, securities convertible into common stock, or secured or unsecured debt, an investment by a strategic partner in a specific clinical indication or market opportunity; or selling all or a portion of our assets. These possibilities, to the extent available, may be on terms that result in significant dilution to our existing shareholders. We will require additional capital to support development and continue our operations. Such additional capital may not be available on terms that are favorable to us, if at all. If we are unable to raise such additional funds, we may be forced to cease operations.

We have a history of losses and we may continue to incur losses and may not achieve or maintain profitability.

For the nine months ended September 30, 2017, we had a net loss of \$2,760,794 and used \$944,831 of cash in operations. For the year ended December 31, 2016, we had a net loss of \$6,439,040 and used \$3,199,453 of cash in operations. As of September 30, 2017, we had an accumulated deficit of \$102,194,242 and a total stockholders' deficit of \$9,023,263. As a result of our significant research, clinical development, regulatory compliance and general and administrative expenses, we expect to incur losses as we incur expenses related to commercialization of the dermaPACE System and research and development of the non-medical uses of the technology. Even if we succeed in developing and commercializing one or more of our product candidates, we may not be able to generate sufficient revenues and we may never achieve or be able to maintain profitability.



If we are unable to successfully raise additional capital, our future clinical trials and product development could be limited and our long term viability may be threatened; however, if we do raise additional capital, your percentage ownership as a shareholder could decrease and constraints could be placed on the operations of our business.

We have experienced negative operating cash flows since our inception and have funded our operations primarily from proceeds received from sales of our capital stock, the issuance of convertible promissory notes, the issuance of notes payable to related parties, the issuance of promissory notes, the sale of our veterinary division in June 2009 and product sales. We will seek to obtain additional funds in the future through equity or debt financings, or strategic alliances with third parties, either alone or in combination with equity financings. These financings could result in substantial dilution to the holders of our common stock, or require contractual or other restrictions on our operations or on alternatives that may be available to us. If we raise additional funds by issuing debt securities, these debt securities could impose significant restrictions on our operations. Any such required financing may not be available in amounts or on terms acceptable to us, and the failure to procure such required financing could have a material adverse effect on our business, financial condition and results of operations, or threaten our ability to continue as a going concern.

A variety of factors could impact our need to raise additional capital, the timing of any required financings and the amount of such financings. Factors that may cause our future capital requirements to be greater than anticipated or could accelerate our need for funds include, without limitation:

unforeseen developments during our clinical trials;

delays in timing of receipt of required regulatory approvals;

unanticipated expenditures in research and development or manufacturing activities;

delayed market acceptance of any approved product;

unanticipated expenditures in the acquisition and defense of intellectual property rights;

the failure to develop strategic alliances for the marketing of some of our product candidates;

additional inventory builds to adequately support the launch of new products;

unforeseen changes in healthcare reimbursement for procedures using any of our approved products;

inability to train a sufficient number of physicians to create a demand for any of our approved products;

lack of financial resources to adequately support our operations;

difficulties in maintaining commercial scale manufacturing capacity and capability;

unforeseen problems with our third party manufacturers, service providers or specialty suppliers of certain raw materials;

unanticipated difficulties in operating in international markets;

unanticipated financial resources needed to respond to technological changes and increased competition;

unforeseen problems in attracting and retaining qualified personnel;

the impact of the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act (collectively the PPACA) on our operations:

the impact of changes in the U.S. health care law and policy on our operations:

enactment of new legislation or administrative regulations;

the application to our business of new court decisions and regulatory interpretations;

claims that might be brought in excess of our insurance coverage;

the failure to comply with regulatory guidelines; and

the uncertainty in industry demand and patient wellness behavior.

In addition, although we have no presently binding commitments or understandings to do so, we are seeking to expand our operations and product line through acquisitions or joint ventures. Any acquisition or joint venture would likely increase our capital requirements.

We are no longer able to rely on Prides Capital Partners, LLC and NightWatch Capital LLC for financial support, and as a result must rely on third parties for financing.

In the past, we have relied on Prides Capital Partners, LLC (together with its affiliates, "Prides Capital") and NightWatch Capital LLC (together with its affiliates, "NightWatch Capital") for the ongoing financial support necessary to operate our business. As of December 31, 2015, both Prides Capital and NightWatch Capital have liquidated, and they will not provide us with any additional financing or financial support in the future. To the extent we must obtain financing to support our cash needs, we will be entirely reliant on unrelated third parties. We do not have any lines of credit or other financing arrangements in place with banks or other financial institutions. We will require additional financing in the future, and additional financing may not be available at times, in amounts or on terms acceptable to us, or at all, which would have a material adverse effect on our business.





We have entered into a line of credit with a related party.

On December 29, 2017, we entered into a line of credit agreement with A. Michael Stolarski, a member of the board of directors of the Company. The agreement established a line of credit in the amount of \$370,000 with an annualized interest rate of 6%. The line of credit may be called for payment upon demand.

Our product candidates may not be developed or commercialized successfully.

Our product candidates are based on a technology that has not been used previously in the manner we propose and must compete with more established treatments currently accepted as the standards of care. Market acceptance of our products will largely depend on our ability to demonstrate their relative safety, efficacy, cost-effectiveness and ease of use.

We are subject to the risks that:

the FDA or a foreign regulatory authority finds our product candidates ineffective or unsafe;

we do not receive necessary regulatory approvals;

the regulatory review and approval process may take much longer than anticipated, requiring additional time, effort and expense to respond to regulatory comments and/or directives;

the reimbursement for our products is difficult to obtain or is too low, which can hinder the introduction and acceptance of our products in the market;

we are unable to get our product candidates in commercial quantities at reasonable costs; and

the patient and physician community does not accept our product candidates.

In addition, our product development program may be curtailed, redirected, eliminated or delayed at any time for many reasons, including:

adverse or ambiguous results;

undesirable side effects that delay or extend the trials;

the inability to locate, recruit, qualify and retain a sufficient number of clinical investigators or patients for our trials; and

regulatory delays or other regulatory actions.

We cannot predict whether we will successfully develop and commercialize our product candidates. If we fail to do so, we will not be able to generate substantial revenues, if any.

The medical device/therapeutic product industries are highly competitive and subject to rapid technological change. If our competitors are better able to develop and market products that are safer and more effective than any products we may develop, our commercial opportunities will be reduced or eliminated.

Our success depends, in part, upon our ability to maintain a competitive position in the development of technologies and products. We face competition from established medical device, pharmaceutical and biotechnology companies, as well as from academic institutions, government agencies, and private and public research institutions in the United States and abroad. Many of our principal competitors have significantly greater financial resources and expertise than we do in research and development, manufacturing, pre-clinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved products. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements, or mergers with, or acquisitions by, large and established companies, or through the development of novel products and technologies.

The industry in which we operate has undergone, and we expect it to continue to undergo, rapid and significant technological change, and we expect competition to intensify as technological advances are made. Our competitors may develop and commercialize pharmaceutical, biotechnology or medical devices that are safer or more effective, have fewer side effects or are less expensive than any products that we may develop. We also compete with our competitors in recruiting and retaining qualified scientific and management personnel, in establishing clinical trial sites and patient registration for clinical trials, and in acquiring technologies complementary to our programs or advantageous to our business.

If our products and product candidates do not gain market acceptance among physicians, patients and the medical community, we may be unable to generate significant revenues, if any.

Even if we obtain regulatory approval for our product candidates, they may not gain market acceptance among physicians, healthcare payers, patients and the medical community. Market acceptance will depend on our ability to demonstrate the benefits of our approved products in terms of safety, efficacy, convenience, ease of administration and cost effectiveness. In addition, we believe market acceptance depends on the effectiveness of our marketing strategy, the pricing of our approved products and the reimbursement policies of government and third party payers. Physicians may not utilize our approved products for a variety of reasons and patients may determine for any reason that our product is not useful to them. If any of our approved products fail to achieve market acceptance, our ability to generate revenues will be limited.



We may not successfully establish and maintain licensing and/or partnership arrangements for our technology for non-medical uses, which could adversely affect our ability to develop and commercialize our non-medical technology.

Our strategy for the development, testing, manufacturing and commercialization of our technology for non-medical uses generally relies on establishing and maintaining collaborations with licensors and other third parties. We may not be able to obtain, maintain or expand these or other licenses and collaborations or establish additional licensing and collaboration arrangements necessary to develop and commercialize our product candidates. Even if we are able to obtain, maintain or establish licensing or collaboration arrangements, these arrangements may not be on favorable terms and may contain provisions that will restrict our ability to develop, test and market our product candidates. Any failure to obtain, maintain or establish licensing or collaboration arrangements on favorable terms could adversely affect our business prospects, financial condition or ability to develop and commercialize our technology for non-medical uses.

We expect to rely at least in part on third party collaborators to perform a number of activities relating to the development and commercialization of our technology for non-medical uses, including possibly the design and manufacture of product materials, potentially the obtaining of regulatory approvals and the marketing and distribution of any successfully developed products. Our collaborators also may have or acquire rights to control aspects of our product development programs. As a result, we may not be able to conduct these programs in the manner or on the time schedule we may contemplate. In addition, if any of these collaborators withdraw support for our programs or product candidates or otherwise impair their development, our business could be negatively affected. To the extent we undertake any of these activities internally, our expenses may increase.

We currently purchase most of our product component materials from single suppliers. If we are unable to obtain product component materials and other products from our suppliers that we depend on for our operations, or find suitable replacement suppliers, our ability to deliver our products to market will likely be impeded, which could have a material adverse effect on us.

We depend on suppliers for product component materials and other components that are subject to stringent regulatory requirements. We currently purchase most of our product component materials from single suppliers and the loss of any of these suppliers could result in a disruption in our production. If this were to occur, it may be difficult to arrange a replacement supplier because certain of these materials may only be available from one or a limited number of sources. Our suppliers may encounter problems during manufacturing due to a variety of reasons, including failure to follow specific protocols and procedures, failure to comply with applicable regulations, equipment malfunction and environmental factors. In addition, establishing additional or replacement suppliers for these materials may take a substantial period of time, as certain of these suppliers must be approved by regulatory authorities.

If we are unable to secure, on a timely basis, sufficient quantities of the materials we depend on to manufacture our products, if we encounter delays or contractual or other difficulties in our relationships with these suppliers, or if we cannot find replacement suppliers at an acceptable cost, then the manufacturing of our products may be disrupted, which could increase our costs and have a material adverse effect on our business and results of operations.

The loss of our key management would likely hinder our ability to execute our business plan.

As a small company with seven employees, our success depends on the continuing contributions of our management team and qualified personnel. Our success depends in large part on our ability to attract and retain highly qualified personnel. We face intense competition in our hiring efforts from other pharmaceutical, biotechnology and medical device companies, as well as from universities and nonprofit research organizations, and we may have to pay higher salaries to attract and retain qualified personnel. The loss of one or more of these individuals, or our inability to attract additional qualified personnel, could substantially impair our ability to implement our business plan.

We face an inherent risk of liability in the event that the use or misuse of our product candidates results in personal injury or death.

The use of our product candidates in clinical trials and the sale of any approved products may expose us to product liability claims which could result in financial loss. Our clinical and commercial product liability insurance coverage may not be sufficient to cover claims that may be made against us. In addition, we may not be able to maintain insurance coverage at a reasonable cost, or in sufficient amounts or scope, to protect us against losses. Any claims against us, regardless of their merit, could severely harm our financial condition, strain our management team and other resources, and adversely impact or eliminate the prospects for commercialization of the product candidate, or sale of the product, which is the subject of any such claim. Although we do not promote any off-label use, off-label uses of products are common and the FDA does not regulate a physician's choice of treatment. Off-label uses of any product for which we obtain approval may subject us to additional liability.



We are subject to a variety of risks due to our operations outside of the U.S.

Our foreign operations are, and will continue to be, subject to a number of risks including:

failure to obtain or maintain the same degree of protection against infringement of our intellectual property rights as we have in the U.S.;

multiple foreign regulatory requirements that are subject to change and that could impact our ability to manufacture and sell our products;

changes in tariffs, trade barriers, and regulatory requirements;

protectionist laws and business practices that favor local competitors, which could slow our growth in foreign markets;

local or national regulations that make it difficult or impractical to market or use our products;

U.S. relations with the governments of the foreign countries in which we operate;

inability or regulatory limitations on our ability to move goods across borders;

the risks associated with foreign currency exchange rate fluctuations;

difficulty in establishing, staffing, and managing foreign operations;

the expense of establishing facilities and operations in new foreign markets;

building and maintaining an organization capable of supporting geographically dispersed operations;

anti-corruption laws, such as the U.S. Foreign Corrupt Practices Act, and other local laws prohibiting corrupt payments to governmental officials;

economic weakness, including inflation, or political instability in particular foreign economies and markets; and

business interruptions due to natural disasters, outbreak of disease, and other events beyond our control.

On June 23, 2016, the United Kingdom (the “UK”) held a referendum in which voters approved an exit from the European Union (the “EU”), commonly referred to as “Brexit.” On March 29, 2017, the UK formally notified the EU of its intention to withdraw pursuant to Article 50 of the Lisbon Treaty. The withdrawal of the UK from the EU will take effect either on the effective date of the withdrawal agreement or, in the absence of agreement, two years after the UK provided its notice of withdrawal. As a result of the referendum, the British government has begun negotiating the terms of the UK’s future relationship with the EU, including the terms of trade between the UK and the EU. Although it is unknown what those terms will be, it is possible that there will be greater restrictions on imports and exports between the UK and EU countries, increased regulatory complexities, and economic and political uncertainty in the region.

In addition, the U.S. federal government has made recent proposals and explicit statements about its intention to make changes to U.S. trade policy, including signing an executive order to withdraw from the negotiating process of the



Trans-Pacific Partnership, renegotiate the terms of NAFTA, and imposing border taxes on imports into the U.S. Any legislation enacted that impacts the relationship between the U.S. and Mexico and/or the continuity of NAFTA could adversely affect our foreign prospects. If enacted, any legislation taken by the U.S. federal government that restricts trade, such as tariffs, trade barriers, and other protectionist or retaliatory measures taken by governments in Europe, Asia, and other countries, could adversely impact our ability to sell products and services in our foreign markets.

Furthermore, an increase in the value of the U.S. dollar relative to foreign currencies could make our products less competitive and/or less affordable in foreign markets.

If we are unable to meet and manage these risks, our foreign operations may not be successful, which would limit the growth of our business and could have a material adverse effect on our business, financial condition, result of operations, or cash flows.

Changes in our effective tax rate may impact our results of operations.

We are subject to taxes in the U.S. and other jurisdictions. Tax rates in these jurisdictions may be subject to significant change due to economic and/or political conditions. A number of other factors may also impact our future effective tax rate including:

the jurisdictions in which profits are determined to be earned and taxed;

the resolution of issues arising from tax audits with various tax authorities;

changes in valuation of our deferred tax assets and liabilities;

increases in expenses not deductible for tax purposes, including write-offs of acquired intangibles and impairment of goodwill in connection with acquisitions;

changes in availability of tax credits, tax holidays, and tax deductions;

changes in share-based compensation; and

changes in tax laws or the interpretation of such tax laws and changes in generally accepted accounting principles.

On December 22, 2017, the U.S. federal government enacted the Tax Cuts and Jobs Act (“2017 Tax Act”). The 2017 Tax Act significantly changed the existing U.S. corporate income tax laws by, among other things, lowering the corporate tax rate, implementing a territorial tax system, and imposing a one-time deemed repatriation toll tax on cumulative undistributed foreign earnings, for which we have not previously provided U.S. taxes. Given the timing, scope, and magnitude of the changes enacted by the 2017 Tax Act, along with on-going implementation efforts, guidance, and other developments from U.S. regulatory and standard-setting bodies, the completion of the accounting for certain tax items may be subject to material change. Any significant changes to our future effective tax rate, including final resolution of provisional amounts relating to effects of the 2017 Tax Act, may result in a material adverse effect on our business, financial condition, results of operations, or cash flows.



## Regulatory Risks

The results of our clinical trials may be insufficient to obtain regulatory approval for our product candidates.

We will only receive regulatory approval to commercialize a product candidate if we can demonstrate to the satisfaction of the FDA or the applicable foreign regulatory agency, in well designed and conducted clinical trials, that the product candidate is safe and effective. If we are unable to demonstrate that a product candidate is safe and effective in advanced clinical trials involving large numbers of patients, we will be unable to submit the necessary application to receive regulatory approval to commercialize the product candidate. We face risks that:

the product candidate may not prove to be safe or effective;

the product candidate's benefits may not outweigh its risks;

the results from advanced clinical trials may not confirm the positive results from pre-clinical studies and early clinical trials;

the FDA or comparable foreign regulatory authorities may interpret data from pre-clinical and clinical testing in different ways than us; and

the FDA or other regulatory agencies may require additional or expanded trials and data.

We are subject to extensive governmental regulation, including the requirement of FDA approval or clearance, before our product candidates may be marketed.

The process of obtaining FDA approval is lengthy, expensive and uncertain, and we cannot be sure that our product candidates will be approved in a timely fashion, or at all. If the FDA does not approve or clear our product candidates in a timely fashion, or at all, our business and financial condition would likely be adversely affected. The FDA has determined that our technology and product candidates constitute "medical devices", and are thus subject to review by the Center for Devices and Radiological Health. However, we cannot be sure that the FDA will not select a different center and/or legal authority for one or more of our other product candidates, in which case applicable governmental review requirements could vary in some respects and be more lengthy and costly.

Both before and after approval or clearance of our product candidates, we, our product candidates, our suppliers and our contract manufacturers are subject to extensive regulation by governmental authorities in the United States and other countries. Failure to comply with applicable requirements could result in, among other things, any of the following actions:

warning letters;

fines and other monetary penalties;

unanticipated expenditures;

delays in FDA approval and clearance, or FDA refusal to approve or clear a product candidate;

product recall or seizure;

interruption of manufacturing or clinical trials;

operating restrictions;

injunctions; and

criminal prosecutions.

In addition to the approval and clearance requirements, numerous other regulatory requirements apply, both before and after approval or clearance, to us, our products and product candidates, and our suppliers and contract manufacturers. These include requirements related to the following:

testing;

manufacturing;

quality control;

labeling;

advertising;

promotion;

distribution;

export;

reporting to the FDA certain adverse experiences associated with the use of the products; and

obtaining additional approvals or clearances for certain modifications to the products or their labeling or claims.

We are also subject to inspection by the FDA to determine our compliance with regulatory requirements, as are our suppliers and contract manufacturers, and we cannot be sure that the FDA will not identify compliance issues that may disrupt production or distribution, or require substantial resources to correct.

The FDA's requirements may change and additional government regulations may be promulgated that could affect us, our product candidates, and our suppliers and contract manufacturers. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action. There can be no assurance that we will not be required to incur significant costs to comply with such laws and regulations in the future, or that such laws or regulations will not have a material adverse effect upon our business.



Patients may discontinue their participation in our clinical studies, which may negatively impact the results of these studies and extend the timeline for completion of our development programs.

Clinical trials for our product candidates require sufficient patient enrollment. We may not be able to enroll a sufficient number of patients in a timely or cost-effective manner. Patients enrolled in our clinical studies may discontinue their participation at any time during the study as a result of a number of factors, including withdrawing their consent or experiencing adverse clinical events, which may or may not be judged to be related to our product candidates under evaluation. If a large number of patients in a study discontinue their participation in the study, the results from that study may not be positive or may not support a filing for regulatory approval of the product candidate.

In addition, the time required to complete clinical trials is dependent upon, among other factors, the rate of patient enrollment. Patient enrollment is a function of many factors, including the following:

the size of the patient population;

the nature of the clinical protocol requirements;

the availability of other treatments or marketed therapies (whether approved or experimental);

our ability to recruit and manage clinical centers and associated trials;

the proximity of patients to clinical sites; and

the patient eligibility criteria for the study.

We rely on third parties to conduct our clinical trials, and their failure to perform their obligations in a timely or competent manner may delay development and commercialization of our device.

We engage a clinical research organization (CRO) and other third party vendors to assist in the conduct of our clinical trials. There are numerous sources that are capable of providing these services. However, we may face delays outside of our control if these parties do not perform their obligations in a timely or competent fashion or if we are forced to change service providers. Any third party that we hire to conduct clinical trials may also provide services to our competitors, which could compromise the performance of their obligations to us. If we experience significant delays in the progress of our clinical trials, the commercial prospects for the product could be harmed and our ability to generate product revenues would be delayed or prevented. Any failure of the CRO and other third party vendors to successfully accomplish clinical trial monitoring, data collection, safety monitoring and data management and the other services they provide for us in a timely manner and in compliance with regulatory requirements could have a material adverse effect on our ability to complete clinical development of our product and obtain regulatory approval. Problems with the timeliness or quality of the work of the CRO may lead us to seek to terminate the relationship and use an alternate service provider. However, making such changes may be costly and may delay our clinical trials, and contractual restrictions may make such a change difficult or impossible. Additionally, it may be difficult to find a replacement organization that can conduct our trials in an acceptable manner and at an acceptable cost.

We may be required to suspend or discontinue clinical trials due to unexpected side effects or other safety risks that could preclude approval of our product candidates.

Our clinical trials may be suspended at any time for a number of reasons. For example, we may voluntarily suspend or terminate our clinical trials if at any time we believe that they present an unacceptable risk to the clinical trial patients. In addition, the FDA or other regulatory agencies may order the temporary or permanent discontinuation of our clinical trials at any time if they believe that the clinical trials are not being conducted in accordance with applicable regulatory requirements or that they present an unacceptable safety risk to the clinical trial patients.

Administering any product candidate to humans may produce undesirable side effects. These side effects could interrupt, delay or halt clinical trials of our product candidates and could result in the FDA or other regulatory authorities denying further development or approval of our product candidates for any or all targeted indications. Ultimately, some or all of our product candidates may prove to be unsafe for human use. Moreover, we could be subject to significant liability if any patient suffers, or appears to suffer, adverse health effects as a result of participating in our clinical trials.

Regulatory approval of our product candidates may be withdrawn at any time.

After regulatory approval has been obtained for medical device products, the product and the manufacturer are subject to continual review, including the review of adverse experiences and clinical results that are reported after our products are made available to patients, and there can be no assurance that such approval will not be withdrawn or restricted. Regulators may also subject approvals to restrictions or conditions, or impose post-approval obligations on the holders of these approvals, and the regulatory status of such products may be jeopardized if such obligations are not fulfilled. If post-approval studies are required, such studies may involve significant time and expense.





The manufacturing facilities we use to make any of our products will also be subject to periodic review and inspection by the FDA or other regulatory authorities, as applicable. The discovery of any new or previously unknown problems with the product or facility may result in restrictions on the product or facility, including withdrawal of the product from the market. We will continue to be subject to the FDA or other regulatory authority requirements, as applicable, governing the labeling, packaging, storage, advertising, promotion, recordkeeping, and submission of safety and other post-market information for all of our product candidates, even those that the FDA or other regulatory authority, as applicable, had approved. If we fail to comply with applicable continuing regulatory requirements, we may be subject to fines, suspension or withdrawal of regulatory approval, product recalls and seizures, operating restrictions and other adverse consequences.

Federal regulatory reforms may adversely affect our ability to sell our products profitably.

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

Failure to obtain regulatory approval in foreign jurisdictions will prevent us from marketing our products abroad.

International sales of our products and any of our product candidates that we commercialize are subject to the regulatory requirements of each country in which the products are sold. Accordingly, the introduction of our product candidates in markets outside the United States will be subject to regulatory approvals in those jurisdictions. The regulatory review process varies from country to country. Many countries impose product standards, packaging and labeling requirements, and import restrictions on medical devices. In addition, each country has its own tariff regulations, duties and tax requirements. The approval by foreign government authorities is unpredictable and uncertain, and can be expensive. Our ability to market our approved products could be substantially limited due to delays in receipt of, or failure to receive, the necessary approvals or clearances.

Prior to marketing our products in any country outside the United States, we must obtain marketing approval in that country. Approval and other regulatory requirements vary by jurisdiction and differ from the United States' requirements. We may be required to perform additional pre-clinical or clinical studies even if FDA approval has been obtained.

If we fail to obtain an adequate level of reimbursement for our approved products by third party payers, there may be no commercially viable markets for our approved products or the markets may be much smaller than expected.

The availability and levels of reimbursement by governmental and other third party payers affect the market for our approved products. The efficacy, safety, performance and cost-effectiveness of our product and product candidates, and of any competing products, will determine the availability and level of reimbursement. Reimbursement and healthcare payment systems in international markets vary significantly by country, and include both government sponsored healthcare and private insurance. To obtain reimbursement or pricing approval in some countries, we may be required to produce clinical data, which may involve one or more clinical trials, that compares the cost-effectiveness of our approved products to other available therapies. We may not obtain international reimbursement or pricing approvals in a timely manner, if at all. Our failure to receive international reimbursement or pricing approvals would negatively impact market acceptance of our approved products in the international markets in which those approvals are sought.

We believe that, in the future, reimbursement for any of our products or product candidates may be subject to increased restrictions both in the United States and in international markets. Future legislation, regulation or reimbursement policies of third party payers may adversely affect the demand for our products currently under development and limit our ability to sell our products on a profitable basis. In addition, third party payers continually attempt to contain or reduce the costs of healthcare by challenging the prices charged for healthcare products and services. If reimbursement for our approved products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, market acceptance of our approved products would be impaired and our future revenues, if any, would be adversely affected.



Healthcare policy changes may have a material adverse effect on us.

In March 2010, the former U.S. President signed into law the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act (collectively, the PPACA), which substantially changes the way healthcare is financed by both governmental and private insurers, encourages improvements in the quality of healthcare items and services, and significantly impacts the biotechnology and medical device industries. The PPACA includes, among other things, the following measures:

a 2.3% excise tax on any entity that manufactures or imports medical devices offered for sale in the United States, with limited exceptions, began in 2013 but a two year moratorium has been issued for sales during 2016 and 2017 and new legislation was passed in January 2018 such that the tax will be delayed until January 1, 2020;

a new Patient-Centered Outcomes Research Institute to oversee, identify priorities and conduct comparative clinical effectiveness research;

payment system reforms including a national pilot program on payment bundling to encourage hospitals, physicians and other providers to improve the coordination, quality and efficiency of certain healthcare services through bundled payment models;

an independent payment advisory board that will submit recommendations to reduce Medicare spending if projected Medicare spending exceeds a specified growth rate; and

a new abbreviated pathway for the licensure of biological products that are demonstrated to be biosimilar or interchangeable with a licensed biological product.

Certain of these provisions are still being implemented, and could meaningfully change the way healthcare is delivered and financed, and could have a material adverse impact on numerous aspects of our business. In the future, there may continue to be additional proposals relating to the reform of the United States healthcare system. Certain of these proposals could limit the prices we are able to charge for our products or the amounts of reimbursement available for our products, and could limit the acceptance and availability of our products. The adoption of some or all of these proposals could have a material adverse effect on our business, results of operations and financial condition.

Additionally, initiatives sponsored by government agencies, legislative bodies and the private sector to limit the growth of healthcare costs, including price regulation and competitive pricing, are ongoing in markets where we do business. We could experience an adverse impact on our operating results due to increased pricing pressure in the United States and in other markets. Governments, hospitals and other third party payors could reduce the amount of approved reimbursement for our products or deny coverage altogether. Reductions in reimbursement levels or coverage or other cost-containment measures could adversely affect our future operating results.

If we fail to comply with the United States Federal Anti-Kickback Statute and similar state laws, we could be subject to criminal and civil penalties and exclusion from the Medicare and Medicaid programs, which would have a material adverse effect on our business and results of operations.

A provision of the Social Security Act, commonly referred to as the Federal Anti-Kickback Statute, prohibits the offer, payment, solicitation or receipt of any form of remuneration in return for referring, ordering, leasing, purchasing or arranging for, or recommending the ordering, purchasing or leasing of, items or services payable by Medicare, Medicaid or any other Federal healthcare program. The Federal Anti-Kickback Statute is very broad in scope and

many of its provisions have not been uniformly or definitively interpreted by existing case law or regulations. In addition, most of the states have adopted laws similar to the Federal Anti-Kickback Statute, and some of these laws are even broader than the Federal Anti-Kickback Statute in that their prohibitions are not limited to items or services paid for by Federal healthcare programs, but instead apply regardless of the source of payment. Violations of the Federal Anti-Kickback Statute may result in substantial civil or criminal penalties and exclusion from participation in Federal healthcare programs.

All of our financial relationships with healthcare providers and others who provide products or services to Federal healthcare program beneficiaries are potentially governed by the Federal Anti-Kickback Statute and similar state laws. We believe our operations are in compliance with the Federal Anti-Kickback Statute and similar state laws. However, we cannot be certain that we will not be subject to investigations or litigation alleging violations of these laws, which could be time-consuming and costly to us and could divert management's attention from operating our business, which in turn could have a material adverse effect on our business. In addition, if our arrangements were found to violate the Federal Anti-Kickback Statute or similar state laws, the consequences of such violations would likely have a material adverse effect on our business, results of operations and financial condition.

Product quality or performance issues may be discovered through ongoing regulation by the FDA and by comparable international agencies, as well as through our internal standard quality process.

The medical device industry is subject to substantial regulation by the FDA and by comparable international agencies. In addition to requiring clearance or approval to market new or improved devices, we are subject to ongoing regulation as a device manufacturer. Governmental regulations cover many aspects of our operations, including quality systems, marketing and device reporting. As a result, we continually collect and analyze information about our product quality and product performance through field observations, customer feedback and other quality metrics. If we fail to comply with applicable regulations or if post market safety issues arise, we could be subject to enforcement sanctions, our promotional practices may be restricted, and our marketed products could be subject to recall or otherwise impacted. Each of these potential actions could result in a material adverse effect on our business, operating results and financial condition.



The use of hazardous materials in our operations may subject us to environmental claims or liability.

We conduct research and development and manufacturing operations in our facility. Our research and development process may, at times, involve the controlled use of hazardous materials and chemicals. We will conduct experiments that are common in the medical device industry, in which we may use small quantities of chemicals, including those that are corrosive, toxic and flammable. The risk of accidental injury or contamination from these materials cannot be eliminated. We do not maintain a separate insurance policy for these types of risks. In the event of an accident or environmental discharge or contamination, we may be held liable for any resulting damages, and any liability could exceed our resources. We are subject to Federal, state and local laws and regulations governing the use, storage, handling and disposal of these materials and specified waste products. The cost of compliance with these laws and regulations could be significant.

#### Risks Related to Intellectual Property

The protection of our intellectual property is critical to our success and any failure on our part to adequately protect those rights could materially adversely affect our business.

Our commercial success depends to a significant degree on our ability to:

obtain and/or maintain protection for our product candidates under the patent laws of the United States and other countries;

defend and enforce our patents once obtained;

obtain and/or maintain appropriate licenses to patents, patent applications or other proprietary rights held by others with respect to our technology, both in the United States and other countries;

maintain trade secrets and other intellectual property rights relating to our product candidates; and

operate without infringing upon the patents, trademarks, copyrights and proprietary rights of third parties.

The degree of intellectual property protection for our technology is uncertain, and only limited intellectual property protection may be available for our product candidates, which may prevent us from gaining or keeping any competitive advantage against our competitors. Although we believe the patents that we own or license, and the patent applications that we own or license, generally provide us a competitive advantage, the patent positions of biotechnology, biopharmaceutical and medical device companies are generally highly uncertain, involve complex legal and factual questions and have been the subject of much litigation. Neither the United States Patent & Trademark Office nor the courts have a consistent policy regarding the breadth of claims allowed or the degree of protection afforded under many biotechnology patents. Even if issued, patents may be challenged, narrowed, invalidated or circumvented, which could limit our ability to stop competitors from marketing similar products or limit the length of term of patent protection we may have for our products. Further, a court or other government agency could interpret our patents in a way such that the patents do not adequately cover our current or future product candidates. Changes in either patent laws or in interpretations of patent laws in the United States and other countries may diminish the value of our intellectual property or narrow the scope of our patent protection.

We also rely upon trade secrets and unpatented proprietary know-how and continuing technological innovation in developing our products, especially where we do not believe patent protection is appropriate or obtainable. We seek to protect this intellectual property, in part, by generally requiring our employees, consultants, and current and

prospective business partners to enter into confidentiality agreements in connection with their employment, consulting or advisory relationships with us, where appropriate. We also require our employees, consultants, researchers and advisors who we expect to work on our products and product candidates to agree to disclose and assign to us all inventions conceived during the work day, developed using our property or which relate to our business. We may lack the financial or other resources to successfully monitor and detect, or to enforce our rights in respect of, infringement of our rights or breaches of these confidentiality agreements. In the case of any such undetected or unchallenged infringements or breaches, these confidentiality agreements may not provide us with meaningful protection of our trade secrets and unpatented proprietary know-how or adequate remedies. In addition, others may independently develop technology that is similar or equivalent to our trade secrets or know-how. If any of our trade secrets, unpatented know-how or other confidential or proprietary information is divulged to third parties, including our competitors, our competitive position in the marketplace could be harmed and our ability to sell our products successfully could be severely compromised. Enforcing a claim that a party illegally obtained and is using trade secrets that have been licensed to us or that we own is also difficult, expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the United States may be less willing to protect trade secrets. Costly and time consuming litigation could be necessary to seek to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could have a material adverse effect on our business. Moreover, some of our academic institution licensees, evaluators, collaborators and scientific advisors have rights to publish data and information to which we have rights. If we cannot maintain the confidentiality of our technologies and other confidential information in connection with our collaborations, our ability to protect our proprietary information or obtain patent protection in the future may be impaired, which could have a material adverse effect on our business.





In particular, we cannot assure you that:

we or the owners or other inventors of the patents that we own or that have been licensed to us, or that may be issued or licensed to us in the future, were the first to file patent applications or to invent the subject matter claimed in patent applications relating to the technologies upon which we rely;

others will not independently develop similar or alternative technologies or duplicate any of our technologies;

any of our patent applications will result in issued patents;

the patents and the patent applications that we own or that have been licensed to us, or that may be issued or licensed to us in the future, will provide a basis for commercially viable products or will provide us with any competitive advantages, or will not be challenged by third parties;

the patents and the patent applications that have been licensed to us are valid and enforceable;

we will develop additional proprietary technologies that are patentable;

we will be successful in enforcing the patents that we own or license and any patents that may be issued or licensed to us in the future against third parties;

the patents of third parties will not have an adverse effect on our ability to do business; or

our trade secrets and proprietary rights will remain confidential.

Accordingly, we may fail to secure meaningful patent protection relating to any of our existing or future product candidates or discoveries despite the expenditure of considerable resources. Further, there may be widespread patent infringement in countries in which we may seek patent protection, including countries in Europe and Asia, which may instigate expensive and time consuming litigation which could adversely affect the scope of our patent protection. In addition, others may attempt to commercialize products similar to our product candidates in countries where we do not have adequate patent protection. Failure to obtain adequate patent protection for our product candidates, or the failure by particular countries to enforce patent laws or allow prosecution for alleged patent infringement, may impair our ability to be competitive. The availability of infringing products in markets where we have patent protection, or the availability of competing products in markets where we do not have adequate patent protection, could erode the market for our product candidates, negatively impact the prices we can charge for our product candidates, and harm our reputation if infringing or competing products are manufactured to inferior standards.

Patent applications owned by or licensed to us may not result in issued patents, and our competitors may commercialize the discoveries we attempt to patent.

The patent applications that we own and that have been licensed to us, and any future patent applications that we may own or that may be licensed to us, may not result in the issuance of any patents. The standards that the United States Patent & Trademark Office and foreign patent offices use to grant patents are not always applied predictably or uniformly and can change. Consequently, we cannot be certain as to the type and scope of patent claims to which we may in the future be entitled under our license agreements or that may be issued to us in the future. These applications may not be sufficient to meet the statutory requirements for patentability and, therefore, may not result in enforceable patents covering the product candidates we want to commercialize. Further, patent applications in the United States that are not filed in other countries may not be published or generally are not published until at least 18 months after

they are first filed, and patent applications in certain foreign countries generally are not published until many months after they are filed. Scientific and patent publication often occurs long after the date of the scientific developments disclosed in those publications. As a result, we cannot be certain that we will be the first creator of inventions covered by our patents or applications, or the first to file such patent applications. As a result, our issued patents and our patent applications could become subject to challenge by third parties that created such inventions or filed patent applications before us or our licensors, resulting in, among other things, interference proceedings in the United States Patent & Trademark Office to determine priority of discovery or invention. Interference proceedings, if resolved adversely to us, could result in the loss of or significant limitations on patent protection for our products or technologies. Even in the absence of interference proceedings, patent applications now pending or in the future filed by third parties may prevail over the patent applications that have been or may be owned by or licensed to us or that we may file in the future, or may result in patents that issue alongside patents issued to us or our licensors or that may be issued or licensed to us in the future, leading to uncertainty over the scope of the patents owned by or licensed to us or that may in the future be owned by us or our freedom to practice the claimed inventions.



Our patents may not be valid or enforceable, and may be challenged by third parties.

We cannot assure you that the patents that have been issued or licensed to us would be held valid by a court or administrative body or that we would be able to successfully enforce our patents against infringers, including our competitors. The issuance of a patent is not conclusive as to its validity or enforceability, and the validity and enforceability of a patent is susceptible to challenge on numerous legal grounds, including the possibility of reexamination proceedings brought by third parties in the United States Patent & Trademark Office against issued patents and similar validity challenges under foreign patent laws. Challenges raised in patent infringement litigation brought by or against us may result in determinations that patents that have been issued or licensed to us or any patents that may be issued to us or our licensors in the future are invalid, unenforceable or otherwise subject to limitations. In the event of any such determinations, third parties may be able to use the discoveries or technologies claimed in these patents without paying licensing fees or royalties to us, which could significantly diminish the value of our intellectual property and our competitive advantage. Even if our patents are held to be enforceable, others may be able to design around our patents or develop products similar to our products that are not within the scope of any of our patents.

In addition, enforcing the patents that we own or license and any patents that may be issued to us in the future against third parties may require significant expenditures regardless of the outcome of such efforts. Our inability to enforce our patents against infringers and competitors may impair our ability to be competitive and could have a material adverse effect on our business.

Issued patents and patent licenses may not provide us with any competitive advantage or provide meaningful protection against competitors.

The discoveries or technologies covered by issued patents we own or license may not have any value or provide us with a competitive advantage, and many of these discoveries or technologies may not be applicable to our product candidates at all. We have devoted limited resources to identifying competing technologies that may have a competitive advantage relative to ours, especially those competing technologies that are not perceived as infringing on our intellectual property rights. In addition, the standards that courts use to interpret and enforce patent rights are not always applied predictably or uniformly and can change, particularly as new technologies develop. Consequently, we cannot be certain as to how much protection, if any, will be afforded by these patents with respect to our products if we, our licensees or our licensors attempt to enforce these patent rights and those rights are challenged in court.

The existence of third party patent applications and patents could significantly limit our ability to obtain meaningful patent protection. If patents containing competitive or conflicting claims are issued to third parties, we may be enjoined from pursuing research, development or commercialization of product candidates or may be required to obtain licenses, if available, to these patents or to develop or obtain alternative technology. If another party controls patents or patent applications covering our product candidates, we may not be able to obtain the rights we need to those patents or patent applications in order to commercialize our product candidates or we may be required to pay royalties, which could be substantial, to obtain licenses to use those patents or patent applications.

In addition, issued patents may not provide commercially meaningful protection against competitors. Other parties may seek and/or be able to duplicate, design around or independently develop products having effects similar or identical to our patented product candidates that are not within the scope of our patents.

Limitations on patent protection in some countries outside the United States, and the differences in what constitutes patentable subject matter in these countries, may limit the protection we have under patents issued outside of the United States. We do not have patent protection for our product candidates in a number of our target markets. The failure to obtain adequate patent protection for our product candidates in any country would impair our ability to be

commercially competitive in that country.

The ability to market the products we develop is subject to the intellectual property rights of third parties.

The biotechnology, biopharmaceutical and medical device industries are characterized by a large number of patents and patent filings and frequent litigation based on allegations of patent infringement. Competitors may have filed patent applications or have been issued patents and may obtain additional patents and proprietary rights related to products or processes that compete with or are similar to ours. We may not be aware of all of the patents potentially adverse to our interests that may have been issued to others. Because patent applications can take many years to issue, there may be currently pending applications, unknown to us, which may later result in issued patents that our product candidates or proprietary technologies may infringe. Third parties may claim that our products or related technologies infringe their patents. Further, we, our licensees or our licensors, may need to participate in interference, opposition, protest, reexamination or other potentially adverse proceedings in the United States Patent & Trademark Office or in similar agencies of foreign governments with regards to our patents, patent applications, and intellectual property rights. In addition, we, our licensees or our licensors may need to initiate suits to protect our intellectual property rights.



Litigation or any other proceeding relating to intellectual property rights, even if resolved in our favor, may cause us to incur significant expenses, divert the attention of our management and key personnel from other business concerns and, in certain cases, result in substantial additional expenses to license technologies from third parties. Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. An unfavorable outcome in any patent infringement suit or other adverse intellectual property proceeding could require us to pay substantial damages, including possible treble damages and attorneys' fees, cease using our technology or developing or marketing our products, or require us to seek licenses, if available, of the disputed rights from other parties and potentially make significant payments to those parties. There is no guarantee that any prevailing party would offer us a license or that we could acquire any license made available to us on commercially acceptable terms. Even if we are able to obtain rights to a third party's patented intellectual property, those rights may be nonexclusive and, therefore, our competitors may obtain access to the same intellectual property. Ultimately, we may be unable to commercialize our product candidates or may have to cease some of our business operations as a result of patent infringement claims, which could materially harm our business. We cannot guarantee that our products or technologies will not conflict with the intellectual property rights of others.

If we need to redesign our products to avoid third party patents, we may suffer significant regulatory delays associated with conducting additional studies or submitting technical, clinical, manufacturing or other information related to any redesigned product and, ultimately, in obtaining regulatory approval. Further, any such redesigns may result in less effective and/or less commercially desirable products, if the redesigns are possible at all.

Additionally, any involvement in litigation in which we, our licensees or our licensors are accused of infringement may result in negative publicity about us or our products, injure our relations with any then-current or prospective customers and marketing partners, and cause delays in the commercialization of our products.

#### Risks Related to our Common Stock

Our stock price is volatile.

The market price of our Common Stock is volatile and could fluctuate widely in response to various factors, many of which are beyond our control, including the following:

our ability to obtain additional financing and, if available, the terms and conditions of the financing;

changes in the timing of clinical trial enrollment, the results of our clinical trials and regulatory approvals for our product candidates or failure to obtain such regulatory approvals;

changes in our industry;

additions or departures of key personnel;

sales of our Common Stock;

our ability to execute our business plan;

operating results that fall below expectations;

period-to-period fluctuations in our operating results;



new regulatory requirements and changes in the existing regulatory environment; and  
general economic conditions and other external factors.

In addition, the securities markets have from time to time experienced significant price and volume fluctuations that are unrelated to the operating performance of particular companies. These market fluctuations may also materially and adversely affect the market price of our Common Stock.

There is currently a limited trading market for our Common Stock and we cannot predict how liquid the market might become.

To date, there has been a limited trading market for our Common Stock and we cannot predict how liquid the market for our common stock might become. Our Common Stock is quoted on the Over-the-Counter market (OTCQB), which is an inter-dealer, over-the-counter market that provides significantly less liquidity than the New York Stock Exchange or the NASDAQ Stock Market. The quotation of our Common Stock on the OTCQB does not assure that a meaningful, consistent and liquid trading market exists. The market price for our Common Stock is subject to volatility and holders of our common stock may be unable to resell their shares at or near their original purchase price, or at any price. In the absence of an active trading market:

investors may have difficulty buying and selling, or obtaining market quotations for our Common Stock;

market visibility for our Common Stock may be limited; and

a lack of visibility for our Common Stock may have a depressive effect on the market for our common stock.



Trading for our Common Stock is limited under the SEC's penny stock regulations, which has an adverse effect on the liquidity of our common stock.

The trading price of our Common Stock is less than \$5.00 per share and, as a result, our Common Stock is considered a "penny stock," and trading in our common stock is subject to the requirements of Rule 15c-9 under the Securities Exchange Act of 1934, as amended (Exchange Act). Under this rule, broker-dealers who recommend low-priced securities to persons other than established customers and accredited investors must satisfy special sales practice requirements. Generally, the broker-dealer must make an individualized written suitability determination for the purchaser and receive the purchaser's written consent prior to the transaction.

Regulations of the Securities and Exchange Commission (the "SEC") also require additional disclosure in connection with any trades involving a "penny stock," including the delivery, prior to any penny stock transaction, of a disclosure schedule explaining the penny stock market and its associated risks. These requirements severely limit the liquidity of securities in the secondary market because only a few brokers or dealers are likely to undertake these compliance activities. Compliance with these requirements may make it more difficult for holders of our Common Stock to resell their shares to third parties or to otherwise dispose of them in the market.

As an issuer of "penny stock", the protection provided by the federal securities laws relating to forward looking statements does not apply to us.

Although federal securities laws provide a safe harbor for forward-looking statements made by a public company that files reports under the federal securities laws, this safe harbor is not available to issuers of penny stocks. As a result, we will not have the benefit of this safe harbor protection in the event of any legal action based upon a claim that the material provided by us contained a material misstatement of fact or was misleading in any material respect because of our failure to include any statements necessary to make the statements not misleading. Such an action could hurt our financial condition.

We have not paid dividends in the past and do not expect to pay dividends in the future. Any return on investment may be limited to the value of our Common Stock.

We have never paid cash dividends on our Common Stock and do not anticipate doing so in the foreseeable future. The payment of dividends on our Common Stock will depend on earnings, financial condition and other business and economic factors affecting us at such time as our board of directors may consider relevant. If we do not pay dividends, our Common Stock may be less valuable because a return on your investment will only occur if our stock price appreciates.

The rights of the holders of our Common Stock may be impaired by the potential rights of future holders (if any) of the Company's preferred stock.

Our board of directors has the right, without stockholder approval, to issue preferred stock with voting, dividend, conversion, liquidation or other rights which could adversely affect the voting power and equity interest of the holders of Common Stock, which could be issued with the right to more than one vote per share, and could be utilized as a method of discouraging, delaying or preventing a change of control. The possible negative impact on takeover attempts could adversely affect the price of our Common Stock.

Although we have no present intention to issue any additional shares of preferred stock or to create any additional series of preferred stock, we may issue such shares in the future.

We have never held an annual meeting for the election of directors.

Pursuant to the provisions of the Nevada Revised Statutes (the “NRS”), directors are to be elected at the annual meeting of the stockholders. Pursuant to the NRS and our bylaws, our board of directors is granted the authority to fix the date, time and place for annual stockholder meetings. No date, time or place has yet been fixed by our board for the holding of an annual stockholder meeting. Pursuant to the NRS and our bylaws, each of our directors holds office after the expiration of his term until a successor is elected and qualified, or until the director resigns or is removed. Under the provisions of the NRS, if an election of our directors has not been made by our stockholders within 18 months of the last such election, then an application may be made to the Nevada district court by stockholders holding a minimum of 15% of our outstanding stockholder voting power for an order for the election of directors in the manner provided in the NRS.

We have not sought an advisory stockholder vote to approve the compensation of our named executive officers.

Rule 14a-21 under the Exchange Act requires us to seek a separate stockholder advisory vote at our annual meeting at which directors are elected to approve the compensation of our named executive officers, not less frequently than once every three years (say-on-pay vote), and, at least once every six years, to seek a separate stockholder advisory vote on the frequency with which we will submit advisory say-on-pay votes to our stockholders (say-on-frequency vote). In 2013, the year in which Rule 14a-21 became applicable to smaller reporting companies, we did not submit to our stockholders a say-on-pay vote to approve an advisory resolution regarding our compensation program for our named executive officers, or a say-on-frequency vote. Consequently, the board of directors has not considered the outcome of our say-on-pay vote results when determining future compensation policies and pay levels for our named executive officers.



## CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the sections titled “Prospectus Summary,” “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Business,” contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 and Section 27A of the Securities Act of 1933. Statements in this prospectus that are not historical facts are hereby identified as “forward-looking statements” for the purpose of the safe harbor provided by Section 21E of the Exchange Act and Section 27A of the Securities Act of 1933, as amended (the “Securities Act”). Forward-looking statements convey our current expectations or forecasts of future events. All statements in this prospectus, including those made by the management of the Company, other than statements of historical fact, are forward-looking statements. Examples of forward-looking statements include statements regarding the Company’s future financial results, operating results, business strategies, projected costs, products, competitive positions, management’s plans and objectives for future operations, and industry trends. These forward-looking statements are based on management’s estimates, projections and assumptions as of the date hereof and include the assumptions that underlie such statements. Forward-looking statements may contain words such as “may,” “will,” “should,” “could,” “would,” “expect,” “plan,” “anticipate,” “believe,” “estimate,” “predict,” “potential” and “could” or other negative of these terms, or other comparable terminology. These forward-looking statements include, among other things, statements about:

market acceptance of and demand for dermaPACE and our product candidates;

regulatory actions that could adversely affect the price of or demand for our approved products;

our intellectual property portfolio;

timing of clinical studies and eventual FDA approval of our products;

our marketing and manufacturing capacity and strategy;

estimates regarding our capital requirements, and anticipated timing of the need for additional funds;

product liability claims;

economic conditions that could adversely affect the level of demand for our products;

financial markets; and

the competitive environment.

Any or all of our forward-looking statements in this prospectus may turn out to be inaccurate. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy and financial needs. They may be affected by inaccurate assumptions we might make or by known or unknown risks and uncertainties, including the risks, uncertainties and assumptions described in the section titled “Risk Factors.” In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this prospectus may not occur as contemplated, and actual results could differ materially from those anticipated or implied by the forward-looking statements.

You should read this prospectus and the registration statement of which this prospectus is a part completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in this prospectus by these cautionary statements.

You should not unduly rely on these forward-looking statements, which speak only as of the date of this prospectus. Unless required by law, we undertake no obligation to publicly update or revise any forward-looking statements to reflect new information or future events or otherwise. You should, however, review the factors and risks we describe in the reports we will file from time to time with the SEC after the date of this prospectus.

#### USE OF PROCEEDS

This prospectus relates to shares of our Common Stock that may be offered and sold from time to time by the selling stockholders who will receive all of the proceeds from the sale of the shares and shares issuable upon the exercise of warrants. We will not receive any proceeds from the sale of shares of Common Stock by selling stockholders in this offering, except cash for the warrant exercise, which if all such warrants are exercised, would be approximately \$5,164,003. Proceeds, if any, received from the exercise of such warrants, would be used for working capital purposes.

We will bear all expenses of registration incurred in connection with this offering, but all commissions, selling and other expenses incurred by the selling stockholders to underwriters, agents, brokers and dealers will be borne by them. We estimate that our expenses in connection with the filing of the registration statement of which this prospectus is a part will be approximately \$15,000.





## SELLING STOCKHOLDERS

### Description of Transactions Related to Securities Initially Registered Herewith:

#### Registration of Restricted Stock Acquired in Private Transactions from the Company Over Three Years Ago

The Company is registering for the first time 241,182 shares of restricted Common Stock owned by A. Michael Stolarski acquired in private transactions from the Company over three years ago.

#### June 2016 Warrants issued for consulting services

In June 2016, the Company issued 500,000 warrants to purchase shares of Common Stock at an exercise price of \$0.08 per warrant to Millennium Park Capital LLC. Each Class L Warrant represents the right to purchase one share of Common Stock. The warrants vested upon issuance and expire on March 17, 2019. This issuance was made pursuant to the exemption from registration provided by Section 4(a)(2) of the Act and Rule 506 of Regulation D thereunder. The Company did not utilize any form of general solicitation or general advertising in connection with the issuance.

#### August 2016 Private Placement

On August 24, 2016, the Company entered into a Securities Purchase Agreement with certain “accredited investors” (as that term is defined in the Commission’s Regulation D) (the “Purchasers”) for the issuance of an aggregate total 28,300,001 shares of the Company’s common stock, par value \$0.001 per share (the “Common Stock”) for an aggregate total purchase price of \$1,698,000. The Company intends to use the proceeds from the private placement for working capital and general corporate purposes.

In addition, the Company, in connection with the private placement, issued to the Purchasers an aggregate total of 28,300,001 warrants (the “Class L Warrants”) to purchase shares of Common Stock at an exercise price of \$0.08 per warrant. Each Class L Warrant represents the right to purchase one share of Common Stock. The warrants vested upon issuance and expire on March 17, 2019.

Pursuant to the terms of a Registration Rights Agreement that the Company entered with the Purchasers in connection with the private placement, the Company is required to file a registration statement or registration statements with the Commission that cover the resale by the Purchasers in the private placement of the shares of Common Stock and the shares of Common Stock issuable upon exercise of the Class L Warrants. The failure on the part of the Company to satisfy certain deadlines described in the Registration Rights Agreement may subject the Company to payment of certain monetary penalties.

Anthony M. Stolarski, a member of our board of directors and an existing shareholder of the Company and Michael Nemelka, the brother of a member of our board of directors and an existing shareholder of the Company, were purchasers in this private placement.

At the closing of the private placement, we paid WestPark Capital, Inc., the placement agent for the private placement, a fee of (i) ten percent (10%) of the aggregate purchase price of the securities sold in the private placement and (ii) warrants to purchase ten percent (10%) of the number of shares sold in the private placement. Accordingly, the Placement Agent was issued warrants to purchase 2,830,000 shares of Common Stock at an exercise price of \$0.08 per share.

In a cashless exercise, the Purchasers exercised Class L Warrants to purchase 583,333 shares of Common Stock at an exercise price of \$0.08 per share and subsequently sold such shares pursuant to Rule 144 and Section 3(a)(9); therefore, such shares are not being registered hereunder and are not reflected in the fee table, prospectus cover or Exhibit 5.1 hereto. The total shares being registered hereunder related to this August 2016 Private Placement are (1) 28,300,001 shares of Common Stock and (2) 27,716,668 shares of Common Stock underlying the Class L Warrants.

August 2016 Warrants issued for consulting services

In August 2016, the Company issued 2,140,000 warrants to purchase shares of Common Stock at an exercise price of \$0.08 per warrant to Millennium Park Capital LLC. Each Class L Warrant represents the right to purchase one share of Common Stock. The warrants vested upon issuance and expire on March 17, 2019. This issuance was made pursuant to the exemption from registration provided by Section 4(a)(2) of the Act and Rule 506 of Regulation D thereunder. The Company did not utilize any form of general solicitation or general advertising in connection with the issuance.



Description of Transactions Related to Securities Previously Registered Under File Nos. 333-208676 and 333-195263:

#### Series A Warrants

On March 17, 2014, we completed a private placement to ten institutional and individual accredited investors for the issuance of an aggregate total of 6,210,000 shares of Common Stock and 6,175 shares of Series A Convertible Preferred Stock for an aggregate total purchase price of \$9,280,000. Each share of Series A Convertible Preferred Stock is convertible into 2,000 shares of Common Stock at the option of the holder. The net proceeds received by the Company were \$8,562,500, net of offering costs of \$717,500.

As part of the private placement, the investors were issued an aggregate total of 23,200,000 Series A Warrants to purchase shares of Common Stock at an exercise price of \$0.50 per share. The warrants vested upon issuance and expire after five years. In addition, the investors were issued an aggregate total of 13,920,000 Series B Warrants to purchase shares of Common Stock at an exercise price of \$1.50 per share. The warrants vested upon issuance and expire after one year. For each of the warrants, the holder will be able to exercise the warrant on a cashless basis, if at the time of exercise, a registration statement covering the shares of our Common Stock underlying such warrants is not effective.

There are currently 1,561,348 Series A Warrants outstanding as of the filing of this prospectus at an exercise price of \$0.0334 per share.

#### Series A Warrant Conversion

On January 13, 2016, the Company entered into an Exchange Agreement (the "Exchange Agreement") with certain beneficial owners (the "Investors") of Series A warrants (the "Warrants") to purchase shares of the Company's common stock, \$0.001 par value per share (the "Common Stock"), pursuant to which the Investors exchanged (the "Exchange") all of their respective Warrants for either (i) shares of Common Stock or (ii) shares of Common Stock and shares of the Company's Series B Convertible Preferred Stock, \$0.001 par value (the "Preferred Stock").

The Exchange was based on the following exchange ratio (the "Exchange Ratio"): 1 Series A Warrant = 0.4685 shares of capital stock. Investors who, as a result of the Exchange, owned in excess of 9.99% (the "Ownership Threshold") of the outstanding Common Stock, received a mixture of Common Stock and shares of Preferred Stock. They received Common Stock up to the Ownership Threshold, and received shares of Preferred Stock beyond the Ownership Threshold (but the total shares of Common Stock and Preferred Stock issued to such holders was still based on the same Exchange Ratio). The relative rights, preferences, privileges and limitations of the Preferred Stock are as set forth in the Company's Certificate of Designation of Series B Convertible Preferred Stock, which was filed with the Secretary of State of the State of Nevada on January 12, 2016 (the "Series B Certificate of Designation").

In the Exchange an aggregate number of 23,701,428 Warrants were exchanged for 7,447,954 shares of Common Stock and 293 shares of Preferred Stock. Pursuant to the Series B Certificate of Designation, each of the Preferred Stock shares is convertible into shares of Common Stock at an initial rate of 1 Preferred Stock share for 12,500 Common Stock shares, which conversion rate is subject to further adjustment as set forth in the Series B Certificate of Designation. Pursuant to the terms of the Series B Certificate of Designation, the holders of the Preferred Stock shares will generally be entitled to that number of votes as is equal to the number of shares of Common Stock into which the Preferred Stock may be converted as of the record date of such vote or consent, subject to the Beneficial Ownership Limitation.

In connection with entering into the Exchange Agreement, the Company also entered into a Registration Rights Agreement, dated January 13, 2016, with the Investors. The Registration Rights Agreement requires that the Company

file with the SEC a registration statement to register for resale the shares of the Common Stock issued in connection with the Exchange and the Common Stock issuable upon conversion of the Preferred Stock shares (the “Preferred Stock Conversion Shares”). The registration statement was declared effective by the SEC on February 16, 2016.



## 2016 Equity Offering

On March 11, 2016, April 6, 2016, and April 15, 2016, pursuant to an effective registration statement filed with the SEC on Form S-1 (Registration No. 333-208676) pursuant to the Act, in conjunction with an equity offering of securities (the “2016 Equity Offering”) with select accredited investors, the Company issued an aggregate of 25,495,835, 3,083,334 and 1,437,501, respectively, “units” for an aggregate purchase price of \$1,529,750, \$185,000, and \$86,200, respectively. Each unit consisted of one share of Common Stock and one warrant (the “Class L Warrants”) to purchase one share of Common Stock at an exercise price of \$0.08 per share. The warrants vested upon issuance and expire on March 17, 2019.

The mandatory prepayment of principal on the notes payable equal to 20% of the proceeds received by the Company was waived by HealthTronics, Inc. for this 2016 Equity Offering.

Michael N. Nemelka, the brother of a member of the Company’s board of directors and an existing shareholder of the Company, was a purchaser in the 2016 Equity Offering of \$100,000.

At the closing of the 2016 Equity Offering, the Company paid Newport Coast Securities, Inc., the placement agent for the equity offering, cash compensation based on the gross proceeds of the private placement and 3,001,667 Class L Warrants.

The Purchasers have previously exercised 1,356,666 Class L Warrants to purchase shares of Common Stock at an exercise price of \$0.08 per share, and the Placement Agent previously exercised 950,166 Class L Warrants to purchase shares of Common Stock at an exercise price of \$0.08 per share. Such shares were either issued pursuant to the previous registration statement or were issued in cashless exercises and resold pursuant to Rule 144 and Section 3(a)(9), are not being registered or offered hereunder and are not reflected in the fee table, prospectus cover or Exhibit 5.1 hereto.

Distribution of Prides Capital Fund I, L.P. and NightWatch Capital Partners II, L.P.

In September 2015, Prides Capital Fund I, L.P. distributed 9,220,771 of Common Stock of the Company to the partners as a part of the liquidation of the fund. In December 2015, NightWatch Capital Partners II, L.P. distributed 1,904,145 of Common Stock of the Company to the partners as a part of the liquidation of the fund.

## Selling Stockholder Table

The table set forth below lists the selling stockholders and other information regarding the beneficial ownership (as determined under Section 13(d) of the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder) of the shares of Common Stock held by each of the selling stockholders. Following this table are three additional tables that detail which of each selling stockholder’s offered securities were previously registered for sale on the registration statements under File Numbers 333-195263, 333-208676 and 333-213774.

The selling stockholders identified in this prospectus may offer the shares of our common stock at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale or at negotiated prices. See “Plan of Distribution” for additional information.

Unless otherwise indicated, we believe, based on information supplied by the following persons, that the persons named in the table below have sole voting and investment power with respect to all shares of common stock that they beneficially own. The registration of the offered shares does not mean that any or all of the selling stockholders will offer or sell any of the shares of common stock upon any such exchange.







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	Number of Shares beneficially owned prior to this offering		Number of Shares being offered (1)		Number of Shares beneficially owned after this offering	
	Number	Percent	Number	Percent	Number	Percent
Name of Beneficial Owner						
Directors and Executive Officers:						
(11)	Kevin A. Richardson, II	9,559,216	7.0%	531,244	*	9,027,972 6.6%
(12)	A. Michael Stolarski	6,848,423	5.0%	4,724,626	3.4%	2,123,797 1.6%
	Lisa E. Sundstrom	1,514,500	1.1%	-	-	-
(3)	John F. Nemelka	746,503	*	46	*	746,457 *
	Alan Rubino	719,800	*	-	-	-
	All directors and executive officers as a group (5 persons)	19,888,442	14.5%			
Principal and/or Selling Shareholders:						
(18)	John McDermott	9,999,999	7.2%	9,999,999	7.2%	-
(4)	RA Capital Healthcare Fund, L.P.	9,956,624	7.2%	9,956,624	7.2%	-
(16)	James McGraw	7,079,167	5.1%	7,079,167	5.1%	-
(5)	Jerome Gildner	6,666,667	4.8%	6,666,667	4.8%	-
(21)	Nicholas Carosi III	6,000,000	4.3%	6,000,000	4.3%	-
(8)	Nainoor Thakore	5,833,334	4.2%	5,833,334	4.2%	-
(22)	Todd W Arbiture	5,833,333	4.2%	5,833,333	4.2%	-
(2)	Prides Capital Fund I, LP	5,514,081	4.0%	4,851,719	4.0%	662,362 *
(14)	Horberg Enterprises LP	5,000,001	3.6%	5,000,001	3.6%	-
(19)	Michael Nemelka	4,505,336	3.2%	4,505,336	3.2%	-
(15)	Ian Miller	3,916,667	2.8%	3,916,667	2.8%	-
(8)	Lynn A. Anderson	3,800,000	2.7%	3,800,000	2.7%	-
(20)	Millennium Park Capital LLC	3,733,167	2.7%	3,733,167	2.7%	-
(13)	Bradley Richmond	2,887,934	2.1%	2,887,934	2.1%	-
(8)	Union Square Energy Advisors Ltd	2,400,000	1.7%	2,400,000	1.7%	-
(5)	Howard Bialick And Mary Beth Bialick	2,350,000	1.7%	2,350,000	1.7%	-
(8)	Kerri Johnson	2,333,334	1.7%	2,333,334	1.7%	-
(23)	Tyler J. Anderson	2,250,001	1.6%	2,250,001	1.6%	-
(5)	Lawrence Wert	1,666,667	1.2%	1,666,667	1.2%	-
(8)	Debra L. Miller	1,666,666	1.2%	1,666,666	1.2%	-
(8)	Howard Bialick	1,666,666	1.2%	1,666,666	1.2%	-

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(2)	Tudor BVI Global Portfolio Ltd.	1,494,552	1.1%	1,494,552	1.1%	-	-
(3)	NightWatch Capital Partners, LP	1,020,446	*	1,020,446	*	-	-
(5)	James A. Lambert	1,000,000	*	1,000,000	*	-	-
(9)	Westpark Capital Inc.	990,500	*	990,500	*	-	-
(8)	John F. Willis	833,334	*	833,334	*	-	-
(8)	Scott Hodges	833,334	*	833,334	*	-	-
(8)	Siltstone Capital Partners LP	833,334	*	833,334	*	-	-
(17)	Jeremy Fisher	750,001	*	750,001	*	-	-
(2)	The Trustees of Columbia University in City of New York	656,074	*	656,074	*	-	-
(8)	Lucas Hoppel	583,333	*	583,333	*	-	-
(3)	NightWatch Capital Partners (Cayman) Ltd.	454,101	*	454,101	*	-	-
(24)	MAZ Partners LP	452,441	*	452,441	*	-	-
(5)	James Groth	416,667	*	416,667	*	-	-
(5)	John Willis	416,667	*	416,667	*	-	-
(5)	Dennis Holman	400,000	*	400,000	*	-	-
(5)	Hannahlu Ventures LP	400,000	*	400,000	*	-	-
(8)	Roberto Nascimento	400,000	*	400,000	*	-	-
(5)	James P Geiskopf	383,333	*	383,333	*	-	-
(25)	Intracoastal Capital LLC	330,000	*	330,000	*	-	-
(5)	Jodarr Pty Ltd	312,500	*	312,500	*	-	-
(6)	Newport Coast Securities	300,166	*	300,166	*	-	-
(5)	Marianna Reis	266,667	*	266,667	*	-	-
(2)	Crown Investment Fund	238,585	*	238,585	*	-	-
(5)	Eric Love	200,000	*	200,000	*	-	-
(5)	Brian Keller And Debbie Keller	200,000	*	200,000	*	-	-
(3)	AMA U.S. Equity Opportunity Fund (QP) LP	182,296	*	182,296	*	-	-
(5)	Cor Clearing Custodian George Naumov Ira	166,667	*	166,667	*	-	-
(4)	Brenda Hall	163,991	*	163,991	*	-	-
(2)	Hallador Alternative Assets Fund, LLC	158,649	*	158,649	*	-	-
(2)	Palladian Partners IV, LLC	152,244	*	152,244	*	-	-
(4)	Oppenheimer & Co., Inc.	149,349	*	149,349	*	-	-
(2)	HealthTronics, Inc.	138,782	*	138,782	*	-	-

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(4)	Michael S. Barish		129,867	*		129,867	*	-	-
(7)	Arthur Motch III		125,246	*		125,246	*	-	-
(5)	Darren Banks		125,000	*		125,000	*	-	-
(6)	Vesselin Mihaylov		125,000	*		125,000	*	-	-
(4)	Frederick Wahl		117,137	*		117,137	*	-	-
(4)	John S. Irish		117,137	*		117,137	*	-	-
(5)	David J. Kovacs		106,667	*		106,667	*	-	-
(4)	Dassity, Inc.		106,209	*		106,209	*	-	-
(7)	Joseph Chiarelli		100,000	*		100,000	*	-	-
(2)	Palladian Partners V, LLC	88,756		*	88,756		*	-	-
(4)	Fred Bohlander		88,618	*		88,618	*	-	-
(4)	Sharon Borg Wall		88,286	*		88,286	*	-	-
(2)	Echelon Partners LP Wolfe Axelrod	82,055		*	82,055		*	-	-
(7)	Weinberger 401k Plan		75,666	*		75,666	*	-	-
(2)	El Coronado Holdings, LLC	71,517		*	71,517		*	-	-
(5)	Anthony Lightman		70,000	*		70,000	*	-	-
(3)	Thunder Basin Corporation	65,800		*	65,800		*	-	-
(7)	Arthur Motch IV		62,746	*		62,746	*	-	-
(3)	Taylor Waypoint Fund, LP	61,359		*	61,359		*	-	-
(2)	Nortrust Nominees Ltd Leperq Amcur Sicav FIS	61,020		*	61,020		*	-	-
(4)	John M. Fay		59,666	*		59,666	*	-	-
(2)	Palladian Partners V-A, LLC	59,170		*	59,170		*	-	-
(2)	Hallador Balance Fund LLC	58,019		*	58,019		*	-	-
(7)	Barbara Miner Cor Clearing		50,269	*		50,269	*	-	-
(5)	Custodian George Naumov Roth Ira Cor Clearing		50,000	*		50,000	*	-	-
(5)	Custodian George Naumov Sep Ira		50,000	*		50,000	*	-	-
(2)	Belfer Investment Partners, LP	49,380		*	49,380		*	-	-
(2)	Lime Partners, LLC	49,380		*	49,380		*	-	-
(2)	Robert A. Belfer Descendants' Trust	49,380		*	49,380		*	-	-
(3)	Stacy Family Trust Nortrust Nominees	47,710		*	47,710		*	-	-
(2)	A/C Leperq-Lynx Partner	44,700		*	44,700		*	-	-
(2)	The Indick/Lachman Revocable Trust	44,262		*	44,262		*	-	-

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(3)	Nightwatch Capital Management, LLC	40,025	*	40,025	*	-	-
(2)	Lynx Managed Equity Master Fund, LP	36,833	*	36,833	*	-	-
(2)	P. Paul and Assocaites	31,495	*	31,495	*	-	-
(2)	Taylor Insurance Series LP - Series G	30,916	*	30,916	*	-	-
(2)	Carlson Capital, LP	29,712	*	29,712	*	-	-
(2)	Charlie McCarthy Booth and Company,	27,081	*	27,081	*	-	-
(2)	Nominee A/C Lepercq Partners Fund, L.P.	25,984	*	25,984	*	-	-
(2)	Peter T. Paul Living Trust	25,792	*	25,792	*	-	-
(2)	KMS Opportunity Fund	25,212	*	25,212	*	-	-
(2)	Renee Holdings Partnership, LP	24,689	*	24,689	*	-	-
(2)	2006 Paul Partnership, LP	24,445	*	24,445	*	-	-
(2)	Elizabeth Rice Grossman Family Trust	23,839	*	23,839	*	-	-
(2)	Elizabeth Grossman IRA	23,802	*	23,802	*	-	-
(2)	Hank Lawlor Nadel & Gussman	16,658	*	16,658	*	-	-
(3)	Combined Funds, LLC	16,141	*	16,141	*	-	-
(2)	Berkowitz Trust U/A/D 9/01/95	15,470	*	15,470	*	-	-
(2)	Taylor Investments Class F	14,924	*	14,924	*	-	-
(7)	Paul Miner		12,542	*		12,542	*
(2)	Christian Puscasiu	12,108	*	12,108	*	-	-
(2)	Murray Indick, IRA / RO	11,306	*	11,306	*	-	-
(2)	Michael Weinberg	9,760	*	9,760	*	-	-
(4)	George Johnson		7,450	*		7,450	*
(2)	Nicholas A Halaby	5,954	*	5,954	*	-	-
(2)	Rob Santangelo, IRA	5,954	*	5,954	*	-	-
(2)	Jeff and Janice Mondry	5,554	*	5,554	*	-	-
(2)	Stephen E. Cootey	5,244	*	5,244	*	-	-
(3)	Lawrence Becerra	5,014	*	5,014	*	-	-
(2)	KCS	4,986	*	4,986	*	-	-
(2)	Roy Trice	4,814	*	4,814	*	-	-
(3)	Demar-Collins Children's Trust	4,712	*	4,712	*	-	-

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(2)	Robert J. Leerink	4,061	*	4,061	*	-	-
(2)	Intellivestor, LLC	3,519	*	3,519	*	-	-
(2)	Christian Puscasiu Roth	3,096	*	3,096	*	-	-
(2)	Charlie McCarthy, IRA	3,011	*	3,011	*	-	-
(3)	Paul Harris	2,761	*	2,761	*	-	-
(3)	Stuart Harris	2,761	*	2,761	*	-	-
(2)	Brad and Kelly Eichler	2,391	*	2,391	*	-	-
(2)	Charles Jobson	2,382	*	2,382	*	-	-
(2)	Michael McCarthy	2,368	*	2,368	*	-	-
(2)	Peter Zecca, Jr.	2,353	*	2,353	*	-	-
(4)	Christopher Wynne Ameriprise Financial,		1,335 *		1,335 *	-	-
(3)	FBO Paul V. Burgon IRA	744	*	744	*	-	-
(2)	Youghiogheny Holdings	518	*	518	*	-	-
(3)	Paul Burgon	229	*	229	*	-	-
(2)	Asagard investment Corporation	52	*	52	*	-	-



- Applicable percentage ownership is based on 139,249,926 shares of common stock outstanding as of December X, 2017. "Beneficial ownership" includes shares for which an individual, directly or indirectly, has or shares voting or investment power, or both, and also includes options that are exercisable within 60 days of December X, 2017. Unless otherwise indicated, all of the listed persons have sole voting and investment power over the shares listed opposite their names. Beneficial ownership as reported in the above table has been determined in accordance with Rule 13d-3 of the Exchange Act.
- (1) Shares issued pursuant to distribution of shares of Prides Capital Fund I, L.P. Shares previously registered with Registration No. 333-208676 on February 17, 2016.
  - (2) Shares issued pursuant to distribution of shares of NightWatch Capital Partners II, L.P. Shares previously registered with Registration No. 333-208676 on February 17, 2016.
  - (3) Shares issued pursuant to Series A Warrant Conversion. Shares previously registered with Registration No. 333-195263 on May 6, 2014.
  - (4) Shares underlying warrants pursuant to 2016 Equity Offering. Shares previously registered with Registration No. 333-208676 on February 17, 2016.
  - (5) Shares underlying warrants pursuant to 2016 Equity Offering Placement Agent fee. Shares previously registered with Registration No. 333-208676 on February 17, 2016.
  - (6) Shares underlying warrants pursuant to Series A Warrants. Shares previously registered with Registration No. 333-195263 on May 6, 2014.
  - (7) Shares and shares underlying warrants pursuant to August 2016 Private Placement. Shares being registered with current Registration No. 333-213774.
  - (8) Shares underlying warrants pursuant to August 2016 Private Placement Placement Agent fee. Shares being registered with current Registration No. 333-213774.
  - (9) Number of shares being offered includes: 406,244 shares issued pursuant to distribution of shares of Prides Capital Fund I, L.P. (previously registered with Registration No. 333-208676 on February 17, 2016) and 125,000 shares underlying warrants pursuant to Series A Warrants (previously registered with Registration No. 333-195263 on May 6, 2014).
  - (10) Number of shares being offered includes: 1,000,000 shares and 1,000,000 shares underlying warrants pursuant to August 2016 Private Placement and 241,182 shares acquired over three years ago based on the records of the Company (collectively being registered with current Registration No. 333-213774), and 1,250,000 shares underlying warrants pursuant to 2016 Equity Offering, 119,563 shares issued pursuant to Series A Warrant Conversion and 1,113,881 shares acquired over three years ago based on records of the Company (collectively previously registered with Registration No. 333-208676 on February 17, 2016).
  - (11) Number of shares being offered includes: 1,839,500 shares underlying warrants pursuant to August 2016 Private Placement Agent Fee (registered with current Registration No. 333-213774), 833,334 shares underlying warrants pursuant to 2016 Equity Offering Placement Agent Fee (previously registered with Registration No. 333-208676 on February 17, 2016) and 215,100 shares underlying warrants pursuant to Series A Warrants (previously registered with Registration No. 333-195263 on May 6, 2014).
  - (12)



- (14) Number of shares being offered includes: 3,333,334 shares and shares underlying warrants pursuant to August 2016 Private Placement (registered with current Registration No. 333-213774) and 1,666,667 shares underlying warrants pursuant to 2016 Equity Offering (previously registered with Registration No. 333-208676 on February 17, 2016).
- (15) Number of shares being offered includes: 3,333,334 shares and shares underlying warrants pursuant to August 2016 Private Placement (registered with current Registration No. 333-213774) and 583,333 shares underlying warrants pursuant to 2016 Equity Offering (previously registered with Registration No. 333-208676 on February 17, 2016).
- (16) Number of shares being offered includes: 5,000,000 shares and shares underlying warrants pursuant to August 2016 Private Placement (registered with current Registration No. 333-213774) and 2,079,167 shares underlying warrants pursuant to 2016 Equity Offering (previously registered with Registration No. 333-208676 on February 17, 2016).
- (17) Number of shares being offered includes: 333,334 shares and shares underlying warrants pursuant to August 2016 Private Placement (registered with current Registration No. 333-213774) and 416,667 shares underlying warrants pursuant to 2016 Equity Offering (previously registered with Registration No. 333-208676 on February 17, 2016).
- (18) Number of shares being offered includes: 8,333,332 shares and shares underlying warrants pursuant to August 2016 Private Placement (registered with current Registration No. 333-213774) and 1,666,667 shares underlying warrants pursuant to 2016 Equity Offering (previously registered with Registration No. 333-208676 on February 17, 2016).
- (19) Number of shares being offered includes: 2,500,000 shares and shares underlying warrants pursuant to August 2016 Private Placement (registered with current Registration No. 333-213774), 338,669 shares underlying warrants pursuant to Series A Warrants (previously registered with Registration No. 333-195263 on May 6, 2014) and 1,666,667 shares underlying warrants pursuant to 2016 Equity Offering (previously registered with Registration No. 333-208676 on February 17, 2016).
- (20) Number of shares being offered includes: 500,000 shares underlying warrants pursuant to June 2016 Warrants issued for consulting services (registered with current Registration No. 333-213774), 2,140,000 shares underlying warrants pursuant to August 2016 Warrants issued for consulting services (registered with current Registration No. 333-213774) and 1,093,167 shares underlying warrants pursuant to 2016 Equity Offering Placement Agent fee per assignment (previously registered with Registration No. 333-208676 on February 17, 2016).
- (21) Number of shares being offered includes: 4,000,000 shares and shares underlying warrants pursuant to August 2016 Private Placement (registered with current Registration No. 333-213774) and 2,000,000 shares underlying warrants pursuant to 2016 Equity Offering (previously registered with Registration No. 333-208676 on February 17, 2016).
- (22) Number of shares being offered includes: 4,166,666 shares and shares underlying warrants pursuant to August 2016 Private Placement (registered with current Registration No. 333-213774) and 1,666,667 shares underlying warrants pursuant to 2016 Equity Offering (previously registered with Registration No. 333-208676 on February 17, 2016).
- (23) Number of shares being offered includes: 1,833,334 shares and shares underlying warrants pursuant to August 2016 Private Placement (registered with current Registration No. 333-213774) and 416,667 shares underlying warrants pursuant to 2016 Equity Offering (previously registered with Registration No. 333-208676 on February

17, 2016).

(24) Number of shares being offered includes: 201,085 shares underlying warrants pursuant to 2016 Equity Offering Placement Agent Fee (previously registered with Registration No. 333-208676 on February 17, 2016) and 251,356 shares underlying warrants pursuant to Series A Warrants (previously registered with Registration No. 333-195263 on May 6, 2014).

(25) Shares underlying warrants pursuant to Series A Warrants. Shares previously registered with Registration No. 333-195263 on May 6, 2014. Mitchell P. Kopin ("Mr. Kopin") and Daniel B. Asher ("Mr. Asher"), each of whom are managers of Intracoastal Capital LLC ("Intracoastal"), have shared voting control and investment discretion over the securities reported herein that are held by Intracoastal. As a result, each of Mr. Kopin and Mr. Asher may be deemed to have beneficial ownership (as determined under Section 13(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")) of the securities reported herein that are held by Intracoastal. Mr. Asher, who is a manager in Intracoastal, is also a control person of a broker-dealer. As a result of such common control, Intracoastal may be deemed to be an affiliate of a broker-dealer. Intracoastal acquired the ordinary shares being registered hereunder in the ordinary course of business, and at the time of the acquisition of the ordinary shares and warrants described herein, Intracoastal did not have any arrangements or understandings with any person to distribute such securities.



Breakdown of Offered Securities Previously Registered Under File No. 333-195263

Name of Beneficial Owner	Previously		Currently being
	Registered	Exercised	Registered
Principal and/or Selling Shareholders:			
Intracoastal Capital LLC	750,000	(420,000)	330,000
Michael Nemelka	338,669	-	338,669
MAZ Partners LP	251,356	-	251,356
Bradley Richmond	215,100	-	215,100
Arthur Motch III	125,246	(125,246)	-
Kevin A. Richardson, II	125,000	-	125,000
Joseph Chiarelli	100,000	-	100,000
Wolfe Axelrod Weinberger 401k Plan	75,666	-	75,666
Arthur Motch IV	62,746	-	62,746
Barbara Miner	50,269	-	50,269
Paul Miner	12,542	-	12,542
Total Shares	2,106,594	(545,246)	1,561,348



## Breakdown of Offered Securities Previously Registered Under File No. 333-20867

Name of Beneficial Owner	Previously		Currently being
	Registered	Exercised	Registered
RA Capital Healthcare Fund, L.P.	9,956,624	-	9,956,624
Prides Capital Fund I, LP	4,851,719	-	4,851,719
Tudor BVI Global Portfolio Ltd.	1,494,552	-	1,494,552
A. Michael Stolarski	1,233,444	-	1,233,444
NightWatch Capital Partners, LP	1,020,446	-	1,020,446
The Trustees of Columbia University in City of New York	656,074	-	656,074
NightWatch Capital Partners (Cayman) Ltd.	454,101	-	454,101
Kevin A. Richardson, II	406,244	-	406,244
Crown Investment Fund	238,585	-	238,585
MAZ Partners LP	201,085	-	201,085
AMA U.S. Equity Opportunity Fund (QP) LP	182,296	-	182,296
Brenda Hall	163,991	-	163,991
Hallador Alternative Assets Fund,LLC	158,649	-	158,649
Palladian Partners IV, LLC	152,244	-	152,244
Openheimer & Co., Inc.	149,349	-	149,349
HealthTronics, Inc.	138,782	-	138,782
Michael S. Barish	129,867	-	129,867
Frederick Wahl	117,137	-	117,137
John S. Irish	117,137	-	117,137
Dassity, Inc.	106,209	-	106,209
Palladian Partners V, LLC	88,756	-	88,756
Fred Bohlander	88,618	-	88,618
Sharon Borg Wall	88,286	-	88,286
Echelon Partners LP	82,055	-	82,055
El Coronado Holdings, LLC	71,517	-	71,517
Thunder Basin Corporation	65,800	-	65,800
Taylor Waypoint Fund, LP	61,359	-	61,359
Nortrust Nominees Ltd Leperq Amcur Sicav FIS	61,020	-	61,020
John M. Fay	59,666	-	59,666
Palladian Partners V-A, LLC	59,170	-	59,170
Hallador Balance Fund LLC	58,019	-	58,019
Lime Partners, LLC	49,380	-	49,380
Belfer Investment Partners, LP	49,380	-	49,380
Robert A. Belfer Descendants' Trust	49,380	-	49,380
Stacy Family Trust	47,710	-	47,710
Nortrust Nominees A/C Leperq-Lynx Partner	44,700	-	44,700
The Indick/Lachman Revocable Trust	44,262	-	44,262
Nightwatch Capital Management, LLC	40,025	-	40,025
Lynx Managed Equity Master Fund, LP	36,833	-	36,833
P. Paul and Associates	31,495	-	31,495

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Taylor Insurance Series LP - Series G	30,916	-	30,916
Carlson Capital, LP	29,712	-	29,712
Charlie McCarthy	27,081	-	27,081
Booth and Company, Nominee A/C Lepercq Partners Fund, L.P.	25,984	-	25,984
Peter T. Paul Living Trust	25,792	-	25,792
KMS Opportunity Fund	25,212	-	25,212
Renee Holdings Partnership, LP	24,689	-	24,689
2006 Paul Partnership, LP	24,445	-	24,445
Elizabeth Rice Grossman Family Trust	23,839	-	23,839
Elizabeth Grossman IRA	23,802	-	23,802
Hank Lawlor	16,658	-	16,658
Nadel & Gussman Combined Funds, LLC	16,141	-	16,141
Berkowitz Trust U/A/D 9/01/95	15,470	-	15,470
Taylor Investments Class F	14,924	-	14,924
Christian Puscasiu	12,108	-	12,108
Murray Indick, IRA / RO	11,306	-	11,306
Michael Weinberg	9,760	-	9,760
George Johnson	7,450	-	7,450
Nicholas A Halaby	5,954	-	5,954
Rob Santangelo, IRA	5,954	-	5,954
Jeff and Janice Mondry	5,554	-	5,554
Stephen E. Cootey	5,244	-	5,244
Lawrence Becerra	5,014	-	5,014
KCS	4,986	-	4,986
Roy Trice	4,814	-	4,814
Demar-Collins Children's Trust	4,712	-	4,712
Robert J. Leerink	4,061	-	4,061
Intellivestor, LLC	3,519	-	3,519
Christian Puscasiu Roth	3,096	-	3,096
Charlie McCarthy, IRA	3,011	-	3,011
Paul Harris	2,761	-	2,761
Stuart Harris	2,761	-	2,761
Brad and Kelly Eichler	2,391	-	2,391
Charles Jobson	2,382	-	2,382
Michael McCarthy	2,368	-	2,368
Peter Zecca, Jr.	2,353	-	2,353
Christopher Wynne	1,335	-	1,335
Ameriprise Financial, FBO Paul V. Burgon IRA	744	-	744
Youghioghenny Holdings	518	-	518
Paul Burgon	229	-	229
Asagard investment Corporation	52	-	52
John F. Nemelka	46	-	46
Shareholder Shares	23,545,114	-	23,545,114
Jerome Gildner	6,666,667	-	6,666,667
Howard Bialick And Mary Beth Bialick	2,350,000	-	2,350,000
James McGraw	2,079,167	-	2,079,167
Nicholas Carosi III	2,000,000	-	2,000,000
Horberg Enterprises LP	1,666,667	-	1,666,667
John McDermott	1,666,667	-	1,666,667
Lawrence Wert	1,666,667	-	1,666,667

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Michael Nemelka	1,666,667	-	1,666,667
Todd W Arbiture	1,666,667	-	1,666,667
Anthony M. Stolarski	1,250,000	-	1,250,000
James A. Lambert	1,000,000	-	1,000,000
At Media Corp	833,333	(833,333)	-
Ian Miller	583,333	-	583,333
James Groth	416,667	-	416,667
Jeremy Fisher	416,667	-	416,667
John Willis	416,667	-	416,667
Tyler Anderson	416,667	-	416,667
Dennis Holman	400,000	-	400,000
Eric Love	400,000	(200,000)	200,000
Hannahlu Ventures LP	400,000	-	400,000
James P Geiskopf	383,333	-	383,333
Jodarr Pty Ltd	312,500	-	312,500
Marianna Reis	266,667	-	266,667
Brian Keller And Debbie Keller	200,000	-	200,000
Michael Leiter	200,000	(200,000)	-
Cor Clearing Custodian George Naumov Ira	166,667	-	166,667
Anthony Lightman	133,333	(63,333)	70,000
Darren Banks	125,000	-	125,000
David J. Kovacs	166,667	(60,000)	106,667
Cor Clearing Custodian George Naumov Roth Ira	50,000	-	50,000
Cor Clearing Custodian George Naumov Sep Ira	50,000	-	50,000
Total Shares Underlying Warrants	30,016,670	(1,356,666)	28,660,004
Newport Coast Securities	300,166	(300,166)	-
Vesselin Mihaylov	125,000	-	125,000
Bradley Richmond	1,483,334	(650,000)	833,334
Millennium Park Capital LLC	1,093,167	-	1,093,167
Total Placement Agent Shares Underlying Warrants	3,001,667	(950,166)	2,051,501
Total Shares	56,563,451	(2,306,832)	54,256,619





## Breakdown of Offered Securities Initially Registered Herewith

Name of Beneficial Owner	Number	Exercised	Registered
Principal and/or Selling Shareholders:			
John McDermott	4,166,666	-	4,166,666
Nainoor Thakore	2,916,667	-	2,916,667
James McGraw	2,500,000	-	2,500,000
Todd Arbiture	2,083,333	-	2,083,333
Nicholas Carosi, III	2,000,000	-	2,000,000
Lynn A. Anderson	1,900,000	-	1,900,000
Ian Miller	1,666,667	-	1,666,667
Horberg Enterprises LP	1,666,667	-	1,666,667
Michael Nemelka	1,250,000	-	1,250,000
Union Square Energy Advisors Ltd	1,200,000	-	1,200,000
Kerri Johnson	1,166,667	-	1,166,667
Anthony M. Stolarski	1,241,182	-	1,241,182
Tyler J. Anderson	916,667	-	916,667
Debra L. Miller	833,333	-	833,333
Howard Bialick	833,333	-	833,333
Lucas Hoppel	583,333	-	583,333.00
Scott Hodges	416,667	-	416,667
John F. Willis	416,667	-	416,667
Siltstone Capital Partners LP	416,667	-	416,667
Roberto Nascinento	200,000	-	200,000
Jeremy Fisher	166,667	-	166,667
Total Selling Shareholder Shares	28,541,183	-	28,541,183
John McDermott	4,166,666	-	4,166,666
Nainoor Thakore	2,916,667	-	2,916,667
Millennium Park Capital LLC	2,640,000	-	2,640,000
James McGraw	2,500,000	-	2,500,000
Todd Arbiture	2,083,333	-	2,083,333
Nicholas Carosi, III	2,000,000	-	2,000,000
Lynn A. Anderson	1,900,000	-	1,900,000
Ian Miller	1,666,667	-	1,666,667
Horberg Enterprises LP	1,666,667	-	1,666,667
Michael Nemelka	1,250,000	-	1,250,000
Union Square Energy Advisors Ltd	1,200,000	-	1,200,000
Kerri Johnson	1,166,667	-	1,166,667
Anthony M. Stolarski	1,000,000	-	1,000,000
Tyler J. Anderson	916,667	-	916,667
Debra L. Miller	833,333	-	833,333
Howard Bialick	833,333	-	833,333

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Lucas Hoppel	583,333	(583,333)	-
Scott Hodges	416,667	-	416,667
John F. Willis	416,667	-	416,667
Siltstone Capital Partners LP	416,667	-	416,667
Roberto Nascimento	200,000	-	200,000
Jeremy Fisher	166,667	-	166,667
Total Shares Underlying Warrants	30,940,001	(583,333)	30,356,668
Bradley Richmond	1,839,500	-	1,839,500
Westpark Capital Inc.	990,500	-	990,500
Total Placement Agent Shares Underlying Warrants	2,830,000	-	2,830,000
Total Shares	62,311,184	(583,333)	61,727,851



## PLAN OF DISTRIBUTION

### Offering of Shares by Selling Stockholders and Upon Exercise of Warrants

We are registering the shares of Common Stock initially issued to the selling stockholders in the August 2016 private placement to permit the resale of these shares of Common Stock by the selling stockholders, from time to time, after the date of this prospectus. See “Selling Stockholders” for additional information. We will not receive any proceeds from the sale of shares of Common Stock by selling stockholders in this offering, except cash for the warrant exercise, which if all such warrants are exercised, would be approximately \$5,164,003. Proceeds, if any, received from the exercise of such warrants, would be used for working capital purposes.

In connection with the private placement described under “SELLING STOCKHOLDERS – August 2016 Private Placement,” we engaged WestPark Capital, Inc., as Placement Agent, and in connection with the registered offering described under “SELLING STOCKHOLDERS – 2016 Equity Offering,” we engaged Newport Coast Securities, Inc. as Placement Agent. We agreed to pay each Placement Agent a fee of (i) ten percent (10%) of the aggregate purchase price of the securities sold in the respective placement and (ii) warrants to purchase ten percent (10%) of the number of shares sold in the respective placement. The Placement Agents, collectively, were issued warrants to purchase 5,831,667 shares of Common Stock at an exercise price of \$0.08 per share. The registration statement of which this prospectus is a part also covers the shares of Common Stock issuable from time to time upon the exercise of the placement agent’s warrants.

As required by FINRA pursuant to Rule 5110(g)(1), neither WestPark Capital, Inc.’s Warrants nor any shares of common stock issued upon exercise of such Warrants may be sold, transferred, assigned, pledged, or hypothecated, or be the subject of any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of such securities by any person for a period of 180 days immediately following the date hereof, except the transfer of any security:

by operation of law or by reason of our reorganization;

to any FINRA member firm participating in the offering and the officers or partners thereof, if all securities so transferred remain subject to the lock-up restriction described above for the remainder of the time period;

if the aggregate amount of our securities held by the placement agent or related person do not exceed 1% of the securities being offered;

that is beneficially owned on a pro-rata basis by all equity owners of an investment fund, provided that no participating member manages or otherwise directs investments by the fund, and participating members in the aggregate do not own more than 10% of the equity in the fund; or

the exercise or conversion of any security, if all securities received remain subject to the lock-up restriction set forth above for the remainder of the time period.

The selling stockholders may sell all or a portion of the shares of Common Stock held by them and offered hereby from time to time directly or through one or more underwriters, broker-dealers or agents. If the shares of Common Stock are sold through underwriters or broker-dealers, the selling stockholders will be responsible for underwriting discounts or commissions or agent’s commissions. The shares of Common Stock may be sold in one or more transactions at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale or at negotiated prices. These sales may be effected in transactions, which may involve crosses or block

transactions, pursuant to one or more of the following methods:

on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;

in the over-the-counter market;

in transactions otherwise than on these exchanges or systems or in the over-the-counter market;

through the writing or settlement of options, whether such options are listed on an options exchange or otherwise;

ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;

block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;

purchases by a broker-dealer as principal and resale by the broker-dealer for its account;

an exchange distribution in accordance with the rules of the applicable exchange;

privately negotiated transactions;

short sales made after the date the Registration Statement is declared effective by the SEC;

broker-dealers may agree with a selling security holder to sell a specified number of such shares at a stipulated price per share;

a combination of any such methods of sale; and

any other method permitted pursuant to applicable law.



The selling stockholders may also sell shares of Common Stock under Rule 144 promulgated under the Securities Act of 1933, as amended, if available, rather than under this prospectus. In addition, the selling stockholders may transfer the shares of Common Stock by other means not described in this prospectus. If the selling stockholders effect such transactions by selling shares of Common Stock to or through underwriters, broker-dealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the selling stockholders or commissions from purchasers of the shares of Common Stock for whom they may act as agent or to whom they may sell as principal (which discounts, concessions or commissions as to particular underwriters, broker-dealers or agents may be in excess of those customary in the types of transactions involved). In connection with sales of the shares of Common Stock or otherwise, the selling stockholders may enter into hedging transactions with broker-dealers, which may in turn engage in short sales of the shares of Common Stock in the course of hedging in positions they assume. The selling stockholders may also sell shares of Common Stock short and deliver shares of Common Stock covered by this prospectus to close out short positions and to return borrowed shares in connection with such short sales. The selling stockholders may also loan or pledge shares of Common Stock to broker-dealers that in turn may sell such shares.

The selling stockholders may pledge or grant a security interest in some or all of the shares of Common Stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of Common Stock from time to time pursuant to this prospectus or any amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending, if necessary, the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer and donate the shares of Common Stock in other circumstances in which case the transferees, donees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

To the extent required by the Securities Act and the rules and regulations thereunder, the selling stockholders and any broker-dealer participating in the distribution of the shares of Common Stock may be deemed to be “underwriters” within the meaning of the Securities Act, and any commission paid, or any discounts or concessions allowed to, any such broker-dealer may be deemed to be underwriting commissions or discounts under the Securities Act. At the time a particular offering of the shares of Common Stock is made, a prospectus supplement, if required, will be distributed, which will set forth the aggregate amount of shares of Common Stock being offered and the terms of the offering, including the name or names of any broker-dealers or agents, any discounts, commissions and other terms constituting compensation from the selling stockholders and any discounts, commissions or concessions allowed or re-allowed or paid to broker-dealers. Each selling stockholder has informed us that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the shares of Common Stock in violation of any applicable securities laws. In no event shall any broker-dealer receive fees, commissions and markups which, in the aggregate, would exceed eight percent (8%).

Under the securities laws of some states, the shares of Common Stock may be sold in such states only through registered or licensed brokers or dealers. In addition, in some states the shares of Common Stock may not be sold unless such shares have been registered or qualified for sale in such state or an exemption from registration or qualification is available and is complied with.

There can be no assurance that any selling stockholder will sell any or all of the shares of Common Stock registered pursuant to the registration statement, of which this prospectus forms a part.

The selling stockholders and any other person participating in such distribution will be subject to applicable provisions of the Exchange Act, and the rules and regulations thereunder, including, without limitation, to the extent applicable, Regulation M of the Exchange Act, which may limit the timing of purchases and sales of any of the shares of common stock by the selling stockholders and any other participating person. To the extent applicable, Regulation



M may also restrict the ability of any person engaged in the distribution of the shares of Common Stock to engage in market-making activities with respect to the shares of Common Stock. All of the foregoing may affect the marketability of the shares of Common Stock and the ability of any person or entity to engage in market-making activities with respect to the shares of Common Stock.

Once sold under the registration statement, of which this prospectus forms a part, the shares of Common Stock will be freely tradable in the hands of persons other than our affiliates.



MARKET FOR OUR COMMON STOCK AND RELATED STOCKHOLDER MATTERS

Market Information

The Company’s Common Stock is quoted on the OTCQB under the symbol “SNWV”.

The following table sets forth, for the periods indicated, the high and low sales prices per share of our Common Stock, as reported on the OTCQB. The quotations reflect inter-dealer prices, without mark-up, mark-down or commissions, and may not represent actual transactions:

Price Range

High Low

2017

First Quarter	\$0.19	\$0.11
Second Quarter	\$0.14	\$0.08
Third Quarter	\$0.18	\$0.09
Fourth Quarter	\$0.28	\$0.12

Price Range

High Low

2016

First Quarter	\$0.09	\$0.05
Second Quarter	\$0.06	\$0.04
Third Quarter	\$0.16	\$0.03
Fourth Quarter	\$0.20	\$0.12

See the cover page of this prospectus for a recent bid price of our Common Stock as reported by the OTC Bulletin Board.

As of February 5, 2018, there were 139,368,736 shares of our Common Stock outstanding and approximately 119 holders of record of our Common Stock. However, we believe that there are more beneficial holders of our Common Stock as many beneficial holders hold their stock in “street name.”

Dividend Policy

We have never declared or paid any cash dividends on our capital stock. We currently intend to retain future earnings, if any, to finance the expansion of our business. As a result, we do not anticipate paying any cash dividends in the

foreseeable future.

#### Securities Authorized for Issuance under Equity Compensation Plans

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
	(a)	(b)	(c)
Equity compensation plans approved by security holders	-	\$0.00	-
Equity compensation plans not approved by security holders	21,593,385	\$0.31	2,238,281
Total	21,593,385	\$0.31	2,238,281

#### Stock Incentive Plans

During 2006, SANUWAVE, Inc.'s board of directors adopted the 2006 Stock Incentive Plan of SANUWAVE, Inc., and certain non-statutory stock option agreements with key employees outside of the 2006 Stock Incentive Plan. The non-statutory stock option agreements have terms substantially the same as the 2006 Stock Incentive Plan. The stock options granted under the plans were nonstatutory options which vest over a period of up to four years, and have a ten year term. The options were granted at an exercise price equal to the fair market value of the common stock on the date of the grant, which was approved by the board of directors of the Company.



On November 1, 2010, the Company approved the Amended and Restated 2006 Stock Incentive Plan of SANUWAVE Health, Inc. effective as of January 1, 2010 (the “Stock Incentive Plan”). The Stock Incentive Plan permits grants of awards to selected employees, directors and advisors of the Company in the form of restricted stock or options to purchase shares of common stock. Options granted may include nonstatutory options as well as qualified incentive stock options. The Stock Incentive Plan is currently administered by the board of directors of the Company. The Stock Incentive Plan gives broad powers to the board of directors of the Company to administer and interpret the particular form and conditions of each option. The stock options granted under the Stock Incentive Plan are nonstatutory options which vest over a period of up to three years, and have a ten year term. The options are granted at an exercise price equal to the fair market value of the common stock on the date of the grant which is approved by the board of directors of the Company.

## MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following Management’s Discussion and Analysis of Financial Condition and Results of Operations contains forward-looking statements regarding our business development plans, clinical trials, regulatory reviews, timing, strategies, expectations, anticipated expenses levels, projected profits, business prospects and positioning with respect to market, demographic and pricing trends, business outlook, technology spending and various other matters (including contingent liabilities and obligations and changes in accounting policies, standards and interpretations) and express our current intentions, beliefs, expectations, strategies or predictions. These forward-looking statements are based on a number of assumptions and currently available information and are subject to a number of risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth under the sections titled “Cautionary Note Regarding Forward-Looking Statements” and “Risk Factors” and elsewhere in this prospectus. The following discussion should be read in conjunction with our consolidated financial statements and related notes thereto included elsewhere in this prospectus.

### Overview

We are a shock wave technology company using a patented system of noninvasive, high-energy, acoustic shock waves for regenerative medicine and other applications. Our initial focus is regenerative medicine – utilizing noninvasive, acoustic shock waves to produce a biological response resulting in the body healing itself through the repair and regeneration of tissue, musculoskeletal, and vascular structures. Our lead regenerative product in the United States is the dermaPACE® device, used for treating diabetic foot ulcers, is cleared in the United States by the Food and Drug Administration.

Our portfolio of healthcare products and product candidates activate biologic signaling and angiogenic responses, including new vascularization and microcirculatory improvement, helping to restore the body’s normal healing processes and regeneration. We intend to apply our Pulsed Acoustic Cellular Expression (PACE®) technology in wound healing, orthopedic, plastic/cosmetic and cardiac conditions. We will begin marketing our dermaPACE System for sale in the United States in 2018. We generate our revenues from sales of the European Conformity Marking (CE Mark) devices and accessories in Europe, Canada, Asia and Asia/Pacific.

We believe we have demonstrated that our patented technology is safe and effective in stimulating healing in chronic conditions of the foot and the elbow through our United States FDA Class III PMA approved OssaTron® device, and in the stimulation of bone and chronic tendonitis regeneration in the musculoskeletal environment through the utilization of our OssaTron, Evotron®, and orthoPACE® devices in Europe and Asia. Our lead product candidate for the global wound care market, dermaPACE, has received the CE Mark allowing for commercial use on acute and chronic defects of the skin and subcutaneous soft tissue.

We are focused on developing our Pulsed Acoustic Cellular Expression (PACE) technology to activate healing in:

wound conditions, including diabetic foot ulcers, venous and arterial ulcers, pressure sores, burns and other skin eruption conditions;

orthopedic applications, such as eliminating chronic pain in joints from trauma, arthritis or tendons/ligaments inflammation, speeding the healing of fractures (including nonunion or delayed-union conditions), improving bone density in osteoporosis, fusing bones in the extremities and spine, and other potential sports injury applications;

plastic/cosmetic applications such as cellulite smoothing, graft and transplant acceptance, skin tightening, scarring and other potential aesthetic uses; and

cardiac applications for removing plaque due to atherosclerosis improving heart muscle performance.





In addition to healthcare uses, our high-energy, acoustic pressure shockwaves, due to their powerful pressure gradients and localized cavitation effects, may have applications in secondary and tertiary oil exploitation, for cleaning industrial waters and food liquids and finally for maintenance of industrial installations by disrupting biofilms formation. Our business approach will be through licensing and/or partnership opportunities.

#### Recent Developments

The U.S. Food and Drug Administration (FDA) granted approval of our Investigational Device Exemption (IDE) to conduct two double-blinded, randomized clinical trials utilizing our lead device product for the global wound care market, the dermaPACE device, in the treatment of diabetic foot ulcers.

The dermaPACE device completed its initial Phase III, IDE clinical trial in the United States for the treatment of diabetic foot ulcers in 2011 and a PMA application was filed with the FDA in July 2011. The primary study goal was to establish superiority in diabetic foot ulcer healing rates using the dermaPACE treatment compared to sham-control, when both are combined with the current standard of care. The standard of care included wet-to-dry dressings, the most widely used primary dressing material in the United States, and offloading with a walking boot for ulcers located on the plantar surface of the foot.

A total of 336 patients entered the dermaPACE study at 37 sites. The patients in the study were followed for a total of 24 weeks. The study's primary endpoint, wound closure, was defined as "successful" if the skin was 100% reepithelialized at 12 weeks without drainage or dressing requirements confirmed at two consecutive study visits.

A summary of the key study findings were as follows:

Patients treated with dermaPACE showed a strong positive trend in the primary endpoint of 100% wound closure. Treatment with dermaPACE increased the proportion of diabetic foot ulcers that closed within 12 weeks, although the rate of complete wound closure between dermaPACE and sham-control at 12 weeks in the intention-to-treat (ITT) population was not statistically significant at the 95% confidence level used throughout the study ( $p=0.320$ ). There were 39 out of 172 (22.67%) dermaPACE subjects who achieved complete wound closure at 12 weeks compared with 30 out of 164 (18.29%) sham-control subjects.

In addition to the originally proposed 12-week efficacy analysis, and in conjunction with the FDA agreement to analyze the efficacy analysis carried over the full 24 weeks of the study, we conducted a series of secondary analyses of the primary endpoint of complete wound closure at 12 weeks and at each subsequent study visit out to 24 weeks. The primary efficacy endpoint of complete wound closure reached statistical significance at 20 weeks in the ITT population with 61 (35.47%) dermaPACE subjects achieving complete wound closure compared with 40 (24.39%) of sham-control subjects ( $p=0.027$ ). At the 24 week endpoint, the rate of wound closure in the dermaPACE® cohort was 37.8% compared to 26.2% for the control group, resulting in a  $p$ -value of 0.023

Within 6 weeks following the initial dermaPACE treatment, and consistently throughout the 24-week period, dermaPACE significantly reduced the size of the target ulcer compared with subjects randomized to receive sham-control ( $p<0.05$ ).

The proportion of patients with wound closure indicate a statistically significant difference between the dermaPACE and the control group in the proportion of subjects with the target-ulcer not closed over the course of the study ( $p$ -value=0.0346). Approximately 25% of dermaPACE® subjects reached wound closure per the study definition by day 84 (week 12). The same percentage in the control group (25%) did not reach wound closure until day 112 (week 16). These data indicate that in addition to the proportion of subjects reaching wound closure being higher in the

dermaPACE® group, subjects are also reaching wound closure at a faster rate when dermaPACE is applied.

dermaPACE demonstrated superior results in the prevention of wound expansion ( $\geq 10\%$  increase in wound size), when compared to the control, over the course of the study at 12 weeks (18.0% versus 31.1%;  $p=0.005$ , respectively)

Of the subjects who achieved complete wound closure at 12 weeks, the recurrence rate at 24 weeks was only 7.7% in the dermaPACE group compared with 11.6% in the sham-control group.

Importantly, there were no meaningful statistical differences in the adverse event rates between the dermaPACE treated patients and the sham-control group. There were no issues regarding the tolerability of the treatment which suggests that a second course of treatment, if needed, is a clinically viable option.

We filed with the FDA the clinical module of the dermaPACE PMA application in June 2011. In December 2011, we received a major deficiency letter from the FDA regarding the FDA's review of the dermaPACE PMA. The FDA issues a major deficiency letter to the applicant when the PMA lacks significant information necessary for the FDA to complete its review or to determine whether there is reasonable assurance that the device is safe and effective for its intended use. The FDA comments on the application in detail and requests the applicant to amend the application to respond to the cited deficiencies and provide the necessary information.



In its December 2011 letter, the FDA cited, among other deficiencies, the dermaPACE study's failure to meet the study's primary endpoint of 100% wound closure compared with sham-control at the 12-week time point. Among the letter's recommendations to address the deficiency was for us to design and conduct another clinical trial using the findings from any subgroup(s) that may support the safety and effectiveness of the dermaPACE device. We evaluated the comments in the FDA's letter and after further analyses of the clinical data and informal, non-binding interaction with the FDA, we decided to conduct supplemental clinical work, as discussed below.

We worked closely with the FDA to amend the protocol and develop the statistical plan for the supplemental clinical trial. A substantial component of this work involved using Bayesian statistical principles to define the dermaPACE treatment benefit established in our previously conducted initial clinical trial. Bayesian designs are supported by the FDA where there is strong prior evidence that can be incorporated into the clinical study design. By incorporating the prior positive information regarding complete wound closure after one treatment cycle into the design of the supplemental clinical trial, substantially fewer patients were required than would otherwise be the case while still ensuring adequate statistical power. This approach saved significant time and preserved scientific rigor.

The double-blind, multi-center, randomized, sham-controlled, parallel group clinical trial plan for the supplemental clinical trial incorporates the same primary efficacy endpoint of complete wound closure at 12 weeks as was utilized in the initial clinical trial (discussed above). Similar to the initial trial, four dermaPACE procedures are administered during the first two weeks following subject enrollment. In the supplemental clinical trial, however, up to four additional dermaPACE procedures are delivered bi-weekly, between weeks 4 and 10 following subject enrollment, which we believe will increase the between-group difference in complete wound closure in favor of dermaPACE over that observed in the first clinical trial.

The patient enrollment began in June 2013 for the supplemental clinical trial and by April 2014, we had enrolled the minimum number of 90 patients in the clinical trial, which represented the number of patients for the first interim analysis by the independent Data Monitoring Committee (DMC). In September 2014, we reported that the DMC had performed an interim analysis on the 12-week efficacy results for the first 90 patients in the supplemental clinical trial and recommended we continue enrollment of patients into the study up to the next predefined patient analysis point of 130 patients. We completed enrollment for the 130 patients in November 2014 and suspended further enrollment at that time.

In May 2015, the DMC performed an analysis on the 130 patients of the primary efficacy endpoint of the rate of 100% complete wound closure at the 12-week endpoint for the dermaPACE treated patients as compared to the sham-control patients and the safety data. The DMC completed its review and noted there were no safety issues. The DMC reported the Monitoring Success Criterion for primary efficacy endpoint of 100% complete wound closure at 12 weeks had not been met and, assuming similar trends for any additional patents enrolled, will likely not be met at the next predefined analysis point of 170 patients. The Monitoring Success Criterion is a predictive probability of dermaPACE achieving statistical significance in the rate of 100% complete wound closure at 12 weeks as compared to the rate for sham-control. As per its charter, the DMC's review was limited to only the 12-week endpoint data. We decided to stop any further enrollment in the supplemental clinical trial after this review.

We retained Musculoskeletal Clinical Regulatory Advisers, LLC (MCRA) in January 2015 to lead the Company's interactions and correspondence with the FDA for the dermaPACE, which have already commenced. MCRA has successfully worked with the FDA on numerous Premarket Approvals (PMAs) for various musculoskeletal, restorative and general surgical devices since 2006.

In June 2015 we met with the FDA to discuss analysis strategy for the data for the supplemental clinical trial and for the combined data of the two studies. In addition to the original data analysis plan for wound closure at 12 weeks, we proposed to analyze wound closure data at time points beyond 12 weeks, up to and including 24 weeks as we had

positive results in the first study of 206 patients completed in 2011 at the 20 week endpoint. The FDA agreed to the additional analyses and stressed that their review and eventual decision will be based upon the totality of the data, both for efficacy and safety.

In October 2015 after freezing and locking the data, we began to perform data analysis. At the 12 week endpoint a total of 39 out of 172 (22.7%) of dermaPACE patients had complete wound closure, compared to 30 out of 164 (18.3%) in the control group. As expected, there was no statistically significant difference in wound closure at the 12 week follow up between the dermaPACE and control group; however, in subsequent visits a trend towards significance was shown resulting in a significant difference by the 20 week endpoint that was maintained through the end of the study. At the 24 week endpoint, the rate of wound closure in the dermaPACE patients was 37.8% compared to 26.2% for the control group, resulting in a p-value of 0.023. Additionally, there were no serious or related adverse events associated with the dermaPACE treatment reported during the course of the two studies and there were no issues regarding the tolerability of the treatment.

In April 2016, we met with FDA to discuss the safety and efficacy results of the trial as well as to discuss various submission strategies. Specifically, we discussed the applicability of the dermaPACE device and the associated clinical trial results in regard to FDA's de novo review process. We concluded the meeting by informing FDA that we intended to submit the results under the de novo process.



Working with MCRA, we submitted to the FDA a de novo petition on July 23, 2016. Due to the strong safety profile of our device and the efficacy of the data showing statistical significance for wound closure for dermaPACE subjects at 20 weeks, we believe that the dermaPACE device should appropriately be considered for classification into Class II as there is no legally marketed predicate device and that there is not an existing Class III classification regulation or one or more approved PMA's (which would have required a reclassification under Section 513(e) or (f)(3) of the FD&C Act). On December 28, 2017, the FDA determined that the criteria at section 513(a)(1)(A) of (B) of the FD&C Act were met, and granted the de novo clearance classifying the dermaPACE as Class II and available to be marketed immediately.

#### Financial Overview

Since inception in 2005, our operations have primarily been funded from the sale of capital stock and convertible debt securities. At September 30, 2017, we had cash and cash equivalents totaling \$40,226. Management expects the cash used in operations for the Company during the first two quarters of 2018 will be approximately \$175,000 to \$225,000 per month as resources are devoted to the commercialization of the dermaPACE and will continue to research and develop the non-medical uses of the product, both of which will require additional capital resources.

The continuation of our business is dependent upon raising additional capital during the first two quarters of 2018 to fund operations. Management's plans are to obtain additional capital in 2018 through investments by strategic partners for market opportunities, which may include strategic partnerships or licensing arrangements, or through the issuance of common or preferred stock, securities convertible into common stock, or secured or unsecured debt. These possibilities, to the extent available, may be on terms that result in significant dilution to our existing shareholders. Although no assurances can be given, management believes that potential additional issuances of equity or other potential financing transactions as discussed above should provide the necessary funding for us. If these efforts are unsuccessful, we may be forced to seek relief through a filing under the U.S. Bankruptcy Code. Our consolidated financial statements do not include any adjustments relating to the recoverability of assets and classification of assets and liabilities that might be necessary should we be unable to continue as a going concern.

Since our inception, we have incurred losses from operations each year. As of September 30, 2017, we had an accumulated deficit of \$102,194,242. Although the size and timing of our future operating losses are subject to significant uncertainty, we expect that operating losses may continue over the next few years as we prepare for the commercialization of the dermaPACE System for the treatment of diabetic foot ulcers but if we are able to successfully commercialize, market and distribute the dermaPACE System, then we hope to partially or completely offset these losses within the next few years. We incurred a net loss of \$2,760,794 and \$3,986,509 during the nine months ended September 30, 2017 and 2016, respectively. These operating losses create an uncertainty about our ability to continue as a going concern. Although no assurances can be given, we believe that potential additional issuances of equity, debt or other potential financing, as discussed above, will provide the necessary funding for us to continue as a going concern for the next year.

We cannot reasonably estimate the nature, timing and costs of the efforts necessary to complete the development and approval of, or the period in which material net cash flows are expected to be generated from, any of our products, due to the numerous risks and uncertainties associated with developing products, including the uncertainty of:

the scope, rate of progress and cost of our clinical trials;

future clinical trial results;

the cost and timing of regulatory approvals;

the establishment of successful marketing, sales and distribution;

the cost and timing associated with establishing reimbursement for our products;

the effects of competing technologies and market developments; and

the industry demand and patient wellness behavior.

Any failure to complete the development of our product candidates in a timely manner, or any failure to successfully market and commercialize our product candidates, would have a material adverse effect on our operations, financial position and liquidity. A discussion of the risks and uncertainties associated with us and our business are set forth under the section entitled “Risk Factors – Risks Related to Our Business”.





## Critical Accounting Policies and Estimates

The 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 United States generally accepted accounting principles. The preparation of our consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses.

On an ongoing basis, we evaluate our estimates and judgments, including those related to the recording of the allowances for doubtful accounts, estimated reserves for inventory, estimated useful life of property and equipment, the determination of the valuation allowance for deferred taxes, the estimated fair value the warrant liability, and the estimated fair value of stock-based compensation. We base our estimates on authoritative literature and pronouncements, historical experience and on various other assumptions that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Our actual results may differ from these estimates under different assumptions or conditions. The results of our operations for any historical period are not necessarily indicative of the results of our operations for any future period.

While our significant accounting policies are more fully described in Note 2 to our consolidated financial statements filed with this registration statement on Form S-1, we believe that the following accounting policies relating to revenue recognition, research and development costs, inventory valuation, intangible assets, liabilities related to warrants, stock-based compensation and income taxes are significant and; therefore, they are important to aid you in fully understanding and evaluating our reported financial results.

### Revenue Recognition

Sales of medical devices, including related applicators and applicator kits, are recognized when shipped to the customer. Shipments under agreements with distributors are invoiced at a fixed price, are not subject to return, and payment for these shipments is not contingent on sales by the distributor. We recognize revenue on shipments to distributors in the same manner as with other customers. We recognize fees from services performed when the service is performed.

### Research and Development Costs

We expense costs associated with research and development activities as incurred. We evaluate payments made to suppliers and other vendors and determine the appropriate accounting treatment based on the nature of the services provided, the contractual terms, and the timing of the obligation. Research and development costs include payments to third parties that specifically relate to our products in clinical development, such as payments to contract research organizations, clinical investigators, clinical monitors, clinical related consultants and insurance premiums for clinical studies. In addition, employee costs (salaries, payroll taxes, benefits and travel) for employees of the regulatory affairs, clinical affairs, quality assurance, quality control, and research and development departments are classified as research and development costs.

### Inventory Valuation

We value our inventory at the lower of our actual cost or the current estimated market value. We regularly review existing inventory quantities and expiration dates of existing inventory to evaluate a provision for excess, expired, obsolete and scrapped inventory based primarily on our historical usage and anticipated future usage. Although we make every effort to ensure the accuracy of our forecasts of future product demand, any significant unanticipated change in demand or technological developments could have an impact on the value of our inventory and our reported

operating results.

Inventory is carried at the lower of cost or market, which is valued using the first in, first out (FIFO) method, and consists primarily of devices and the component material for assembly of finished products, less reserves for obsolescence.

#### Intangible Assets

Intangible assets subject to amortization consist of patents which are recorded at cost. Patents are amortized on a straight-line basis over the average life of 11.4 years. We regularly review intangible assets to determine if facts and circumstances indicate that the useful life is shorter than we originally estimated or that the carrying amount of the assets may not be recoverable. If such facts and circumstances exist, we assess the recoverability of the intangible assets by comparing the projected undiscounted net cash flows associated with the related asset or group of assets over their remaining lives against their respective carrying amounts. If recognition of an impairment charge is necessary, it is measured as the amount by which the carrying amount of the intangible asset exceeds the fair value of the intangible asset.



#### Liabilities related to Warrants Issued

We record certain common stock warrants we issued at fair value and recognize the change in the fair value of such warrants as a gain or loss, which we report in the Other Income (Expense) section in our Consolidated Statements of Comprehensive Loss. We report the warrants that we record at fair value as liabilities because they contain certain down-round provisions allowing for reduction of their exercise price. We estimate the fair value of these warrants using a binomial options pricing model.

#### Stock-based Compensation

The Stock Incentive Plan provides that stock options, and other equity interests or equity-based incentives, may be granted to key personnel, directors and advisors at the fair value of the common stock at the time the option is granted, which is approved by our board of directors. The maximum term of any option granted pursuant to the Stock Incentive Plan is ten years from the date of grant.

In accordance with ASC 718, Compensation – Stock Compensation (formerly SFAS No. 123(R), Accounting for Stock-Based Compensation), the fair value of each option award is estimated on the date of grant using the Black-Scholes option pricing model. The expected terms of options granted represent the period of time that options granted are estimated to be outstanding and are derived from the contractual terms of the options granted. We amortize the fair value of each option over each option's vesting period.

#### Income Taxes

We account for income taxes utilizing the asset and liability method prescribed by the provisions of ASC 740, Income Taxes (formerly SFAS No. 109, Accounting for Income Taxes). Deferred tax assets and liabilities are determined based on differences between the financial reporting and tax basis of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. A valuation allowance is provided for the deferred tax assets, including loss carryforwards, when it is more likely than not that some portion or all of a deferred tax asset will not be realized.

We account for uncertain tax positions in accordance with the related provisions of ASC 740, Income Taxes (formerly FASB Interpretation No. 48, Accounting for Uncertainty in Income Taxes (FIN 48)). ASC 740 specifies the way public companies are to account for uncertainties in income tax reporting, and prescribes a methodology for recognizing, reversing, and measuring the tax benefits of a tax position taken, or expected to be taken, in a tax return. ASC 740 requires the evaluation of tax positions taken or expected to be taken in the course of preparing our tax returns to determine whether the tax positions would "more-likely-than-not" be sustained if challenged by the applicable tax authority. Tax positions not deemed to meet the more-likely-than-not threshold would be recorded as a tax benefit or expense in the current year.

#### Results of Operations for the Nine Months ended September 30, 2017 and 2016 (Unaudited)

##### Revenues and Cost of Revenues

Revenues for the nine months ended September 30, 2017 were \$422,199, compared to \$728,382 for the same period in 2016, a decrease of \$306,183, or 42%. Revenues resulted primarily from sales in Europe, Asia and Asia/Pacific of our orthoPACE device and related applicators. The decrease in revenues for 2017 was due to lower sales of new orthoPACE devices and applicators and lower applicator refurbishments in Europe and Asia/Pacific in 2017.

Cost of revenues for the nine months ended September 30, 2017 were \$141,523, compared to \$249,847 for the same period in 2016. Gross profit as a percentage of revenues was 66% for the nine months ended September 30, 2017 and 2016.

#### Research and Development Expenses

Research and development expenses for the nine months ended September 30, 2017 were \$965,084, compared to \$1,052,595 for the same period in 2016, a decrease of \$87,511, or 8%. Research and development costs include payments to third parties that specifically relate to our products in clinical development, such as payments to contract research organizations, clinical investigators, clinical monitors, clinical related consultants and insurance premiums for clinical studies. In addition, employee costs (salaries, payroll taxes, benefits, and travel) for employees of the regulatory affairs, clinical affairs, quality assurance, and research and development departments are classified as research and development costs. Research and development expenses decreased in 2017 as a result of lower payments to consultants related to the de novo petition submission to the FDA in July 2016.



### General and Administrative Expenses

General and administrative expenses for the nine months ended September 30, 2017 were \$1,875,891, as compared to \$1,734,891 for the same period in 2016, an increase of \$141,000, or 8%. The increase in general and administrative expenses was due to non-cash stock compensation expense for stock options issued in June 2017 and increase in bad debt reserve which was partially offset by lower legal and investor relations fees.

### Other Income (Expense)

Other income (expense) was a net expense of \$182,952 for the nine months ended September 30, 2017, as compared to a net expense of \$1,445,264 for the same period in 2016, a decrease in other expense of \$1,262,312, or 87%. The decrease in other expense for 2017 was due to gain on warrant valuation and lower interest expense related to promissory notes in 2016.

### Provision for Income Taxes

At September 30, 2017, we had federal net operating loss carryforwards through the year ended December 31, 2016 that will begin to expire in 2025. Our ability to use these net operating loss carryforwards to reduce our future federal income tax liabilities could be subject to annual limitations. In connection with possible future equity offerings, we may realize a “more than 50% change in ownership” which could further limit our ability to use our net operating loss carryforwards accumulated to date to reduce future taxable income and tax liabilities. Additionally, because United States tax laws limit the time during which net operating loss carryforwards may be applied against future taxable income and tax liabilities, we may not be able to take advantage of our net operating loss carryforwards for federal income tax purposes.

### Net Loss

Net loss for the nine months ended September 30, 2017 was \$2,760,794, or (\$0.02) per basic and diluted share, compared to a net loss of \$3,986,509, or (\$0.04) per basic and diluted share, for the same period in 2016, a decrease in the net loss of \$1,225,715, or 31%. The decrease in the net loss for 2017 was primarily due to the gain on the warrant valuation and lower operating expenses as noted above.

We anticipate that our operating losses will continue over the next few years as we continue to incur expenses related to seeking FDA approval for our dermaPACE device for the treatment of diabetic foot ulcers and then commercialization of the product when approval is received. If we obtain such FDA approval and are able to successfully commercialize, market and distribute the dermaPACE device, we hope to partially or completely offset these losses in the future.

### Results of Operations for the Years ended December 31, 2016 and 2015

#### Revenues and Cost of Revenues

Revenues for the year ended December 31, 2016 were \$1,376,063, compared to \$965,501 for the same period in 2015, an increase of \$410,562, or 43%. Revenue resulted primarily from sales in Europe, Asia and Asia/Pacific of our orthoPACE devices and related applicators. The increase in revenue for 2016 is primarily due to an increase in sales of 17 orthoPACE devices in Asia/Pacific and the European Community, as compared to the prior year, as well as higher sales of new and refurbished applicators due to increased devices in use.



Cost of revenues for the year ended December 31, 2016 were \$565,129, compared to \$284,962 for the same period in 2015. Gross profit as a percentage of revenues was 59% for the year ended December 31, 2016, compared to 70% for the same period in 2015. The decrease in gross profit as a percentage of revenues in 2016 was due to a higher percentage of revenues being from the sale of devices in 2016, as compared to 2015, which have a lower gross margin as compared to the gross margin of new and refurbished applicators.

#### Research and Development Expenses

Research and development expenses for the year ended December 31, 2016 were \$1,128,640, compared to \$2,172,819 for the same period in 2015, a decrease of \$1,044,179, or 48%. Research and development expenses include the costs associated with the dermaPACE clinical trial, which incurred costs related to analysis of the data and preparation of the de novo submission in 2015 that totaled \$200,139 and \$939,649 for the years ended December 31, 2016 and 2015, respectively. In addition, clinical research on medical and non-medical uses of our technology decreased by \$58,008 as a result of lower available partners and salary and benefits costs decreased by \$271,057 due to reduced bonus expense year over year.

#### General and Administrative Expenses

General and administrative expenses for the year ended December 31, 2016 were \$2,673,773, as compared to \$2,735,129 for the same period in 2015, a decrease of \$61,356, or 2%. The decrease in general and administrative expenses in 2016, as compared to 2015, was primarily due a decrease in salary, benefits and travel in 2016. This was partially offset by increased accounting fees due to third party work on complex financial transaction and consulting fees related to equity raises in 2016.



### Depreciation and Amortization

Depreciation for the year ended December 31, 2016 was \$19,858, compared to \$3,612 for the same period in 2015, an increase of \$16,246. The increase was due to purchase of new assets in 2016 and reclassification of devices from inventory to fixed assets in 2016.

Amortization for the years ended December 31, 2016 and 2015 was \$306,756 and \$306,757, respectively.

### Other Income (Expense)

Other income (expense) was a net expense of \$3,122,541 for the year ended December 31, 2016 as compared to a net expense of \$372,507 for the same period in 2015, an increase of \$2,750,034 in the net expense. The net expense in 2016 included a non-cash loss of \$2,223,718 for a valuation adjustment on outstanding warrants and conversion of Series A Warrants, as compared to a non-cash gain of \$58,515 in 2015. The net expense in 2016 also includes interest expense related to promissory notes issued and paid in 2016 and increased interest expense for related party note due to late payments carried over from 2015.

### Provision for Income Taxes

At December 31, 2016, we had federal net operating loss carryforwards of \$73,775,701 that will begin to expire in 2025. Our ability to use these net operating loss carryforwards to reduce our future federal income tax liabilities could be subject to annual limitations. In connection with possible future equity offerings, we may realize a “more than 50% change in ownership” which could further limit our ability to use our net operating loss carryforwards accumulated to date to reduce future taxable income and tax liabilities. Additionally, because United States tax laws limit the time during which net operating loss carryforwards may be applied against future taxable income and tax liabilities, we may not be able to take advantage of our net operating loss carryforwards for federal income tax purposes.

### Net Loss

Net loss for the year ended December 31, 2016 was \$6,439,040, or (\$0.06) per basic and diluted share, compared to a net loss of \$4,810,285, or (\$0.08) per basic and diluted share, for the same period in 2015, an increase in the net loss of \$1,628,755, or 34%. The increase in the net loss was primarily a result of increased loss on warrant valuation that is partially offset by increased gross margin and decrease in operating expenses.

We anticipate that our operating losses will continue over the next few years as we prepare our FDA submission for the dermaPACE device for the treatment of diabetic foot ulcers but if we obtain FDA approval and are able to successfully commercialize, market and distribute the dermaPACE device, then we hope to partially or completely offset these losses within the next few years.

### Liquidity and Capital Resources

Since inception in 2005, our operations have primarily been funded from the sale of capital stock and convertible debt securities. At September 30, 2017, we had cash and cash equivalents totaling \$40,226. Management expects the cash used in operations for the Company during first two quarters of 2018 will be approximately \$175,000 to \$225,000 per month as resources are devoted to the commercialization of the dermaPACE and will continue to research and develop the non-medical uses of our product, both of which will require additional capital resources.

The continuation of our business is dependent upon raising additional capital during the first two quarters of 2018 to fund operations. Management’s plans are to obtain additional capital in 2018 through investments by strategic partners

for market opportunities, which may include strategic partnerships or licensing arrangements, or through the issuance of common or preferred stock, securities convertible into common stock, or secured or unsecured debt. These possibilities, to the extent available, may be on terms that result in significant dilution to our existing shareholders. Although no assurances can be given, management believes that potential additional issuances of equity or other potential financing transactions as discussed above should provide the necessary funding for us. If these efforts are unsuccessful, we may be forced to seek relief through a filing under the U.S. Bankruptcy Code. Our consolidated financial statements do not include any adjustments relating to the recoverability of assets and classification of assets and liabilities that might be necessary should we be unable to continue as a going concern.



We may also attempt to raise additional capital if there are favorable market conditions or other strategic considerations even if we have sufficient funds for planned operations. To the extent that we raise additional funds by issuance of equity securities, our shareholders will experience dilution, and debt financings, if available, may involve restrictive covenants or may otherwise constrain our financial flexibility. To the extent that we raise additional funds through collaborative arrangements, it may be necessary to relinquish some rights to our intellectual property or grant licenses on terms that are not favorable to us. In addition, payments made by potential collaborators or licensors generally will depend upon our achievement of negotiated development and regulatory milestones. Failure to achieve these milestones would harm our future capital position.

For the nine months ended September 30, 2017, net cash used by operating activities was \$944,831, primarily consisting of compensation costs, research and development activities and general corporate operations.

For the years ended December 31, 2016 and 2015, net cash used by operating activities was \$3,199,453 and \$3,473,456, respectively, primarily consisting of compensation costs, research and development activities and general corporate operations. The decrease in the use of cash for operating activities for the year ended December 31, 2016, as compared to the same period for 2015, of \$274,003, or 8%, was primarily due to the decreased total operating expenses in 2016, as compared to 2015, of \$1,105,535, which is partially offset by increase in accounts receivable of \$430,583 and decrease in accrued employee compensation of \$415,998. Net cash used by investing activities in 2016 was \$8,770 as compared to net cash provided by investing activities in 2015 of \$100,000 from the sale of assets held for sale. Net cash provided by financing activities for the year ended December 31, 2016 was \$3,207,771, which primarily consisted of the net proceeds from 2016 Public Offering of \$1,596,855, 2016 Private Placement of \$1,528,200, and proceeds from warrant exercises of \$67,466. There was no net cash provided by financing activities in 2015. Cash and cash equivalents decreased by \$19,359 for the year ended December 31, 2016 and cash and cash equivalents decreased by \$3,394,141 for the year ended December 31, 2015.

#### Contractual Obligations

Our major outstanding contractual obligations relate to our operating lease for our facility, purchase and supplier obligations for product component materials and equipment, and our notes payable.

In August 2016, we entered into a lease agreement for the operations, production and research and development office for 7,500 square feet of space. Under the terms of the lease, we pay monthly rent of \$10,844, as adjusted on an annual basis for additional proportionate operating and insurance costs associated with the building over the base amount. The term of the lease is 65 months.

We have developed a network of suppliers, manufacturers, and contract service providers to provide sufficient quantities of product component materials for our products through the development, clinical testing and commercialization phases. We have a manufacturing supply agreement with Swisstronics Contract Manufacturing AG in Switzerland, a division of Cicor Technologies Ltd., covering the generator box component of our devices.

In August 2005, as part of the purchase of the orthopedic division assets of HealthTronics, Inc., we issued two notes to HealthTronics, Inc. for \$2,000,000 each. The notes bear interest at 6% annually. Quarterly interest through June 30, 2010 was accrued and added to the principal balance. Interest is paid quarterly in arrears beginning September 30, 2010. All remaining unpaid accrued interest and principal is due August 1, 2015. Accrued interest on the notes not payable until August 2015 totaled \$1,372,743 at December 31, 2016 and 2015. On June 15, 2015, we entered into an amendment with HealthTronics, Inc. to amend certain provisions of the notes payable, related parties. The note amendment provides for the extension of the due date to January 31, 2017. In connection with the note amendment, we entered into a security agreement with HealthTronics, Inc. to provide a first security interest in our assets. The notes payable, related parties will bear interest at 8% per annum effective August 1, 2015 and during any period when

an Event of Default occurs, the applicable interest rate shall increase by 2% per annum. We will be required to make mandatory prepayments of principal on the notes payable, related parties equal to 20% of the proceeds we receive through the issuance or sale of any equity securities in cash or through the licensing of our patents or other intellectual property rights. On June 28, 2016, we entered into a second amendment with HealthTronics, Inc. to amend certain provisions of the notes payable, related parties. The note amendment provides for the extension of the due date to January 31, 2018. On August 3, 2017, we entered into a third amendment with HealthTronics, Inc. to amend certain provisions of the notes payable, related parties. The note amendment provides for the extension of the due date to December 31, 2018.





### Recently Issued Accounting Standards

In May 2014, the FASB issued Accounting Standards Update No. 2014-09, Revenue from Contracts with Customers (ASU 2014-09), which supersedes nearly all existing revenue recognition guidance under U.S. GAAP. The core principle of ASU 2014-09 is to recognize revenues when promised goods or services are transferred to customers in an amount that reflects the consideration to which an entity expects to be entitled for those goods or services. ASU 2014-09 defines a five step process to achieve this core principle and, in doing so, more judgment and estimates may be required within the revenue recognition process than are required under existing U.S. GAAP. The standard is effective for annual periods beginning after December 15, 2017, and interim periods therein, using either of the following transition methods: (i) a full retrospective approach reflecting the application of the standard in each prior reporting period with the option to elect certain practical expedients, or (ii) a retrospective approach with the cumulative effect of initially adopting ASU 2014-09 recognized at the date of adoption (which includes additional footnote disclosures). In July 2015, the FASB confirmed a one-year delay in the effective date of ASU 2014-09, making the effective date for the Company the first quarter of fiscal 2018 instead of the current effective date, which was the first quarter of fiscal 2017. This one year deferral was issued by the FASB in ASU 2015-14, Revenue from Contracts with Customers (Topic 606). The Company can elect to adopt the provisions of ASU 2014-09 for annual periods beginning after December 31, 2017, including interim periods within that reporting period. The FASB also agreed to allow entities to choose to adopt the standard as of the original effective date. The Company will adopt the standard effective January 1, 2018 and currently anticipates using the retrospective approach with the cumulative effect of initially adopting the new accounting standard at the date of adoption. The Company has completed a high-level impact assessment and has commenced an in-depth evaluation of the adoption impact, which involves the review of pre-existing customer contracts and arrangements. The Company is still in the process of evaluating the impact that the adoption of the new standard will have on these contracts and transactions. The new standard will require the Company to include expanded qualitative and quantitative disclosures relating to the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers, including specific judgments and estimates used by management.

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842), which requires lessees to recognize the most leases on the balance sheet. The provisions of this guidance are effective for the annual periods beginning after December 15, 2018, and interim periods within those years, with early adoption permitted. Management is evaluating the requirements of this guidance and has not yet determined the impact of the adoption on the Company's financial position or results of operations.



In August 2016, the FASB issued ASU No. 2016-15, Statement of Cash Flows: Classification of Certain Cash Receipts and Cash Payments (Topic 230). This ASU will make eight targeted changes to how cash receipts and cash payments are presented and classified in the statement of cash flows. The ASU will be effective for fiscal years beginning after December 15, 2017. This standard will require adoption on a retrospective basis unless it is impracticable to apply, in which case it would be required to apply the amendments prospectively as of the earliest date practicable. Management is evaluating the requirements of this guidance and has not yet determined the impact of the adoption on the Company's financial position or results of operations.

In July 2017, the FASB issued ASU No. 2017-11, Earnings Per Share (Topic 260); Distinguishing Liabilities from Equity (Topic 480); Derivatives and Hedging (Topic 815): (Part I) Accounting for Certain Financial Instruments with Down Round Features, (Part II) Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception. Part I of this ASU addresses the complexity and reporting burden associated with the accounting for freestanding and embedded instruments with down round features as liabilities subject to fair value measurement. Part II of this ASU addresses the difficulty of navigating Topic 480. Part I of this ASU will be effective for fiscal years beginning after December 15, 2018. Early adoption is permitted for an entity in an interim or annual period. Management is evaluating the requirements of this guidance and has not yet determined the impact of the pending adoption on the Company's financial position or results of operations.

#### Off-Balance Sheet Arrangements

Since inception, we have not engaged in any off-balance sheet activities, including the use of structured finance, special purpose entities or variable interest entities.

#### Effects of Inflation

Because our assets are, to an extent, liquid in nature, they are not significantly affected by inflation. However, the rate of inflation affects such expenses as employee compensation, office space leasing costs and research and development charges, which may not be readily recoverable during the period of time that we are bringing the product candidates to market. To the extent inflation results in rising interest rates and has other adverse effects on the market, it may adversely affect our consolidated financial condition and results of operations.

## BUSINESS

### Overview

We are a shock wave technology company using a patented system of noninvasive, high-energy, acoustic shock waves for regenerative medicine and other applications. Our initial focus is regenerative medicine – utilizing noninvasive, acoustic shock waves to produce a biological response resulting in the body healing itself through the repair and regeneration of tissue, musculoskeletal, and vascular structures. Our lead regenerative product in the United States is the dermaPACE® device, used for treating diabetic foot ulcers, is cleared in the United States by the Food and Drug Administration.

Our portfolio of healthcare products and product candidates activate biologic signaling and angiogenic responses, including new vascularization and microcirculatory improvement, helping to restore the body's normal healing processes and regeneration. We intend to apply our Pulsed Acoustic Cellular Expression (PACE®) technology in wound healing, orthopedic, plastic/cosmetic and cardiac conditions. We will begin marketing dermaPACE System for sale in the United States in 2018. We generate our revenues from sales of the European Conformity Marking (CE Mark) devices and accessories in Europe, Canada, Asia and Asia/Pacific.

We believe we have demonstrated that our patented technology is safe and effective in stimulating healing in chronic conditions of the foot and the elbow through our United States FDA Class III PMA approved OssaTron® device, and in the stimulation of bone and chronic tendonitis regeneration in the musculoskeletal environment through the utilization of our OssaTron, Evotron®, and orthoPACE® devices in Europe and Asia. Our lead product candidate for the global wound care market, dermaPACE, has received the CE Mark allowing for commercial use on acute and chronic defects of the skin and subcutaneous soft tissue.

We are focused on developing our Pulsed Acoustic Cellular Expression (PACE) technology to activate healing in:

wound conditions, including diabetic foot ulcers, venous and arterial ulcers, pressure sores, burns and other skin eruption conditions;

orthopedic applications, such as eliminating chronic pain in joints from trauma, arthritis or tendons/ligaments inflammation, speeding the healing of fractures (including nonunion or delayed-union conditions), improving bone density in osteoporosis, fusing bones in the extremities and spine, and other potential sports injury applications;

plastic/cosmetic applications such as cellulite smoothing, graft and transplant acceptance, skin tightening, scarring and other potential aesthetic uses; and

cardiac applications for removing plaque due to atherosclerosis improving heart muscle performance.



In addition to healthcare uses, our high-energy, acoustic pressure shock waves, due to their powerful pressure gradients and localized cavitation effects, may have applications in secondary and tertiary oil exploitation, for cleaning industrial waters, for sterilizing food liquids and finally for maintenance of industrial installations by disrupting biofilms formation. Our business approach will be through licensing and/or partnership opportunities.

#### Pulsed Acoustic Cellular Expression (PACE) Technology for Regenerative Medicine

Our PACE product candidates, including our lead product candidate, dermaPACE, deliver high-energy acoustic pressure waves in the shockwave spectrum to produce compressive and tensile stresses on cells and tissue structures. These mechanical stresses at the cellular level have been shown in pre-clinical work to promote angiogenic and positive inflammatory responses, and quickly initiate the healing cascade. This has been shown in pre-clinical work to result in microcirculatory improvement, including increased perfusion and blood vessel widening (arteriogenesis), the production of angiogenic growth factors, enhanced new blood vessel formation (angiogenesis) and the subsequent regeneration of tissue such as skin, musculoskeletal and vascular structures. PACE procedures trigger the initiation of an accelerated inflammatory response that speeds wounds into proliferation phases of healing and subsequently returns a chronic condition to an acute condition to help reinitiate the body's own healing response. We believe that our PACE technology is well suited for various applications due to its activation of a broad spectrum of cellular events critical for the initiation and progression of healing.

High-energy, acoustic pressure shock waves are the primary component of our previously developed product, OssaTron, which was approved by the FDA and marketed in the United States for use in chronic plantar fasciitis of the foot in 2000 and for elbow tendonitis in 2003. Previously, acoustic pressure shock waves have been used safely at much higher energy and pulse levels in the lithotripsy procedure (breaking up kidney stones) by urologists for over 25 years and has reached the care status of "golden standard" for the treatment of kidney stones.

We research, design, manufacture, market and service our products worldwide and believe we have already demonstrated that our technology is safe and effective in stimulating healing in chronic conditions of the foot and the elbow through our United States FDA Class III PMA approved OssaTron device, and in the stimulation of bone and chronic tendonitis regeneration in the musculoskeletal environment through the utilization of our orthoPACE, Evotron and OssaTron devices in Europe and Asia.

We believe our experience from our preclinical research and the clinical use of our predecessor legacy devices in Europe and Asia, as well as our OssaTron device in the United States, demonstrates the safety, clinical utility and efficacy of these products. In addition, we have preclinical programs focused on the development and better understanding of treatments specific to our target applications.

Currently, there are limited biological or mechanical therapies available to activate the healing and regeneration of tissue, bone and vascular structures. As baby boomers age, the incidence of their targeted diseases and musculoskeletal injuries and ailments will be far more prevalent. We believe that our pre-clinical and clinical studies suggest that our PACE technology will be effective in targeted applications. If successful, we anticipate that future clinical studies should lead to regulatory approval of our regenerative product candidates in the United States, Europe and Asia. If approved by the appropriate regulatory authorities, we believe that our product candidates will offer new, effective and noninvasive treatment options in wound healing, orthopedic injuries, plastic/cosmetic uses and cardiac procedures, improving the quality of life for millions of patients suffering from injuries or deterioration of tissue, bones and vascular structures.

dermaPACE – Our Lead Product Candidate

The U.S. Food and Drug Administration (FDA) granted approval of our Investigational Device Exemption (IDE) to conduct two double-blinded, randomized clinical trials utilizing our lead device product for the global wound care market, the dermaPACE device, in the treatment of diabetic foot ulcers.

The dermaPACE device completed its initial Phase III, IDE clinical trial in the United States for the treatment of diabetic foot ulcers in 2011 and a PMA application was filed with the FDA in July 2011. The primary study goal was to establish superiority in diabetic foot ulcer healing rates using the dermaPACE treatment compared to sham-control, when both are combined with the current standard of care. The standard of care included wet-to-dry dressings, the most widely used primary dressing material in the United States, and offloading with a walking boot for ulcers located on the plantar surface of the foot.

A total of 336 patients entered the dermaPACE study at 37 sites. The patients in the study were followed for a total of 24 weeks. The study's primary endpoint, wound closure, was defined as "successful" if the skin was 100% reepithelialized at 12 weeks without drainage or dressing requirements confirmed at two consecutive study visits.





A summary of the key study findings were as follows:

Patients treated with dermaPACE showed a strong positive trend in the primary endpoint of 100% wound closure. Treatment with dermaPACE increased the proportion of diabetic foot ulcers that closed within 12 weeks, although the rate of complete wound closure between dermaPACE and sham-control at 12 weeks in the intention-to-treat (ITT) population was not statistically significant at the 95% confidence level used throughout the study ( $p=0.320$ ). There were 39 out of 172 (22.67%) dermaPACE subjects who achieved complete wound closure at 12 weeks compared with 30 out of 164 (18.29%) sham-control subjects.

In addition to the originally proposed 12-week efficacy analysis, and in conjunction with the FDA agreement to analyze the efficacy analysis carried over the full 24 weeks of the study, we conducted a series of secondary analyses of the primary endpoint of complete wound closure at 12 weeks and at each subsequent study visit out to 24 weeks. The primary efficacy endpoint of complete wound closure reached statistical significance at 20 weeks in the ITT population with 61 (35.47%) dermaPACE subjects achieving complete wound closure compared with 40 (24.39%) of sham-control subjects ( $p=0.027$ ). At the 24 week endpoint, the rate of wound closure in the dermaPACE® cohort was 37.8% compared to 26.2% for the control group, resulting in a p-value of 0.023

Within 6 weeks following the initial dermaPACE treatment, and consistently throughout the 24-week period, dermaPACE significantly reduced the size of the target ulcer compared with subjects randomized to receive sham-control ( $p<0.05$ ).

The proportion of patients with wound closure indicate a statistically significant difference between the dermaPACE and the control group in the proportion of subjects with the target-ulcer not closed over the course of the study ( $p\text{-value}=0.0346$ ). Approximately 25% of dermaPACE® subjects reached wound closure per the study definition by day 84 (week 12). The same percentage in the control group (25%) did not reach wound closure until day 112 (week 16). These data indicate that in addition to the proportion of subjects reaching wound closure being higher in the dermaPACE® group, subjects are also reaching wound closure at a faster rate when dermaPACE is applied.

dermaPACE demonstrated superior results in the prevention of wound expansion ( $\geq 10\%$  increase in wound size), when compared to the control, over the course of the study at 12 weeks (18.0% versus 31.1%;  $p=0.005$ , respectively)

Of the subjects who achieved complete wound closure at 12 weeks, the recurrence rate at 24 weeks was only 7.7% in the dermaPACE group compared with 11.6% in the sham-control group.

Importantly, there were no meaningful statistical differences in the adverse event rates between the dermaPACE treated patients and the sham-control group. There were no issues regarding the tolerability of the treatment which suggests that a second course of treatment, if needed, is a clinically viable option.

We filed with the FDA the clinical module of the dermaPACE PMA application in June 2011. In December 2011, we received a major deficiency letter from the FDA regarding the FDA's review of the dermaPACE PMA. The FDA issues a major deficiency letter to the applicant when the PMA lacks significant information necessary for the FDA to complete its review or to determine whether there is reasonable assurance that the device is safe and effective for its intended use. The FDA comments on the application in detail and requests the applicant to amend the application to respond to the cited deficiencies and provide the necessary information.

In its December 2011 letter, the FDA cited, among other deficiencies, the dermaPACE study's failure to meet the study's primary endpoint of 100% wound closure compared with sham-control at the 12-week time point. Among the letter's recommendations to address the deficiency was for us to design and conduct another clinical trial using the

findings from any subgroup(s) that may support the safety and effectiveness of the dermaPACE device. We evaluated the comments in the FDA's letter and after further analyses of the clinical data and informal, non-binding interaction with the FDA, we decided to conduct supplemental clinical work, as discussed below.

We worked closely with the FDA to amend the protocol and develop the statistical plan for the supplemental clinical trial. A substantial component of this work involved using Bayesian statistical principles to define the dermaPACE treatment benefit established in our previously conducted initial clinical trial. Bayesian designs are supported by the FDA where there is strong prior evidence that can be incorporated into the clinical study design. By incorporating the prior positive information regarding complete wound closure after one treatment cycle into the design of the supplemental clinical trial, substantially fewer patients were required than would otherwise be the case while still ensuring adequate statistical power. This approach saved significant time and preserved scientific rigor.

The double-blind, multi-center, randomized, sham-controlled, parallel group clinical trial plan for the supplemental clinical trial incorporates the same primary efficacy endpoint of complete wound closure at 12 weeks as was utilized in the initial clinical trial (discussed above). Similar to the initial trial, four dermaPACE procedures are administered during the first two weeks following subject enrollment. In the supplemental clinical trial, however, up to four additional dermaPACE procedures are delivered bi-weekly, between weeks 4 and 10 following subject enrollment, which we believe will increase the between-group difference in complete wound closure in favor of dermaPACE over that observed in the first clinical trial.



The patient enrollment began in June 2013 for the supplemental clinical trial and by April 2014, we had enrolled the minimum number of 90 patients in the clinical trial, which represented the number of patients for the first interim analysis by the independent Data Monitoring Committee (DMC). In September 2014, we reported that the DMC had performed an interim analysis on the 12-week efficacy results for the first 90 patients in the supplemental clinical trial and recommended we continue enrollment of patients into the study up to the next predefined patient analysis point of 130 patients. We completed enrollment for the 130 patients in November 2014 and suspended further enrollment at that time.

In May 2015, the DMC performed an analysis on the 130 patients of the primary efficacy endpoint of the rate of 100% complete wound closure at the 12-week endpoint for the dermaPACE treated patients as compared to the sham-control patients and the safety data. The DMC completed its review and noted there were no safety issues. The DMC reported the Monitoring Success Criterion for primary efficacy endpoint of 100% complete wound closure at 12 weeks had not been met and, assuming similar trends for any additional patients enrolled, will likely not be met at the next predefined analysis point of 170 patients. The Monitoring Success Criterion is a predictive probability of dermaPACE achieving statistical significance in the rate of 100% complete wound closure at 12 weeks as compared to the rate for sham-control. As per its charter, the DMC's review was limited to only the 12-week endpoint data. We decided to stop any further enrollment in the supplemental clinical trial after this review.

We retained Musculoskeletal Clinical Regulatory Advisers, LLC (MCRA) in January 2015 to lead the Company's interactions and correspondence with the FDA for the dermaPACE, which have already commenced. MCRA has successfully worked with the FDA on numerous Premarket Approvals (PMAs) for various musculoskeletal, restorative and general surgical devices since 2006.

In June 2015 we met with the FDA to discuss analysis strategy for the data for the supplemental clinical trial and for the combined data of the two studies. In addition to the original data analysis plan for wound closure at 12 weeks, we proposed to analyze wound closure data at time points beyond 12 weeks, up to and including 24 weeks as we had positive results in the first study of 206 patients completed in 2011 at the 20 week endpoint. The FDA agreed to the additional analyses and stressed that their review and eventual decision will be based upon the totality of the data, both for efficacy and safety.

In October 2015 after freezing and locking the data, we began to perform data analysis. At the 12 week endpoint a total of 39 out of 172 (22.7%) of dermaPACE patients had complete wound closure, compared to 30 out of 164 (18.3%) in the control group. As expected, there was no statistically significant difference in wound closure at the 12 week follow up between the dermaPACE and control group; however, in subsequent visits a trend towards significance was shown resulting in a significant difference by the 20 week endpoint that was maintained through the end of the study. At the 24 week endpoint, the rate of wound closure in the dermaPACE patients was 37.8% compared to 26.2% for the control group, resulting in a p-value of 0.023. Additionally, there were no serious or related adverse events associated with the dermaPACE treatment reported during the course of the two studies and there were no issues regarding the tolerability of the treatment.

In April 2016, we met with FDA to discuss the safety and efficacy results of the trial as well as to discuss various submission strategies. Specifically, we discussed the applicability of the dermaPACE device and the associated clinical trial results in regard to FDA's de novo review process. We concluded the meeting by informing FDA that we intended to submit the results under the de novo process.

Working with MCRA, we submitted to the FDA a de novo petition on July 23, 2016. Due to the strong safety profile of our device and the efficacy of the data showing statistical significance for wound closure for dermaPACE subjects at 20 weeks, we believe that the dermaPACE device should appropriately be considered for classification into Class II as there is no legally marketed predicate device and that there is not an existing Class III classification regulation or

one or more approved PMA's (which would have required a reclassification under Section 513(e) or (f)(3) of the FD&C Act). On December 28, 2017, the FDA determined that the criteria at section 513(a)(1)(A) of (B) of the FD&C Act were met, and granted the de novo clearance classifying the dermaPACE as Class II and available to be marketed immediately.

Finally, our dermaPACE device has received the European CE Mark approval to treat acute and chronic defects of the skin and subcutaneous soft tissue, such as in the treatment of pressure ulcers, diabetic foot ulcers, burns, and traumatic and surgical wounds. The dermaPACE is also licensed for sale in Canada, Australia and New Zealand.

We are actively marketing the dermaPACE to the European Community, Canada and Asia/Pacific, utilizing distributors in select countries.



## Growth Opportunity in Wound Care Treatment

We are focused on the development of products that treat unmet medical needs in large market opportunities. Our FDA approval in the United States for our lead product candidate, dermaPACE, is the first step in meeting a currently unmet need in the treatment of diabetic foot ulcers. Diabetes is common, disabling and deadly. In the United States, diabetes has reached epidemic proportions. Based on our research, foot ulcerations are one of the leading causes of hospitalization in diabetic patients and lead to billions of dollars in health care expenditures annually. The Advanced Medical Technology Association (“AdvaMed”) estimates that the management and treatment of chronic and complex wounds costs the United States \$20 billion annually. According to the American Diabetes Association (the “ADA”), 23.6 million people in the United States have diabetes, 57 million are pre-diabetic and 15% of people with diabetes will acquire a non-healing ulcer in their lifetime. AdvaMed states that over 1.5 million diabetic foot ulcers occur annually, are a recurrent condition, and lead to over 82,000 amputations each year, at a direct and indirect cost ranging from \$20,000 to \$60,000 per patient. AdvaMed estimates that chronic leg wounds (ulcers) account for the loss of two million workdays per year, at a cost of approximately \$300 million in lost productivity. Advanced, cost-effective treatment modalities for diabetes and its comorbidities, including diabetic foot ulcers, are in great need globally, yet in short supply. According to the International Diabetes Federation, by the year 2035 the prevalence of diabetes is expected to rise by 55% to 592 million people worldwide.

A majority of challenging wounds are non-healing chronic wounds and in addition, chronic diabetic foot ulcers and pressure ulcers are often slow-to-heal wounds, which often fail to heal for many months, and sometimes, for several years. These wounds often involve physiologic, complex and multiple complications such as reduced blood supply, compromised lymphatic systems or immune deficiencies that interfere with the body’s normal wound healing processes. These wounds often develop due to a patient’s impaired vascular and tissue repair capabilities. Wounds that are difficult to treat do not always respond to traditional therapies, which include hydrocolloids, hydrogels and alginates, among other treatments. We believe that physicians and hospitals need a therapy that addresses the special needs of these chronic wounds with high levels of both clinical and cost effectiveness.

We believe we are developing a safe and advanced technology in the wound healing and tissue regeneration market with PACE. dermaPACE is noninvasive and does not require anesthesia, making it a cost-effective, time-efficient and painless approach to wound care. Physicians and nurses look for therapies that can accelerate the healing process and overcome the obstacles of patients’ compromised conditions, and prefer therapies that are easy to administer. In addition, since many of these patients are not confined to bed, healthcare providers want therapies that are minimally disruptive to the patient’s or the caregiver’s daily routines. dermaPACE’s noninvasive treatments are designed to elicit the body’s own healing response, and followed by simple standard of care dressing changes, are designed to allow for limited disruption to the patients’ normal lives and have no effect on mobility while their wounds heal.

## Developing Product Opportunities - Orthopedic

We launched the orthoPACE device in Europe, which is intended for use in orthopedic, trauma and sports medicine indications, following CE Marking approval in 2010. The device features four types of applicators including a unique applicator that is less painful for some indications and may reduce or completely eliminate anesthesia for some patients. In the orthopedic setting, the orthoPACE is being used to treat tendinopathies and acute and nonunion fractures, including the soft tissue surrounding the fracture to accelerate healing and prevent secondary complications and their associated treatment costs. In 2013, we obtained approval from South Korea’s Ministry of Food and Drug Safety to market orthoPACE in that country.

We believe there are significant opportunities in the worldwide orthopedic market, driven by aging baby boomers and their desire for active lifestyles well into retirement and the growth in the incidence of osteoporosis, osteoarthritis, obesity, diabetes and other diseases that cause injury to orthopedic tissues and/or impair the ability of the body to heal

injuries.

We have experience in the sports medicine field (which generally refers to the non-surgical and surgical management of cartilage, ligament and tendon injuries) through our legacy devices, OssaTron and Evotron. Common examples of these injuries include extremity joint pain, torn rotator cuffs (shoulder), tennis elbow, Achilles' tendon tears and torn meniscus cartilage in the knee. Injuries to these structures are very difficult to treat because the body has a limited natural ability to regenerate these tissues. Cartilage, ligament and tendons seldom return to a pre-injury state of function. Due to a lack of therapies that can activate healing and regenerate these tissues, many of these injuries will result in a degree of permanent impairment and chronic pain. Prior investigations and pre-clinical work indicate that PACE can activate various cell types and may be an important adjunct to the management of sports medicine injuries.

Trauma injuries are acute and result from any physical damage to the body caused by violence or accident or fracture. Surgical treatment of traumatic fractures often involves fixation with metallic plates, screws and rods (internal fixation) and include off-loading to prevent motion, permitting the body to initiate a healing response. In the United States, six million traumatic fractures are treated each year, and over one million internal fixation procedures are performed annually. The prevalence of non-union among these fractures is between 2.5% and 10.0% depending on the fracture type and risk factors such as diabetes and smoking history or other systemic diseases. At the time of surgery, adjunctive agents (such as autograft, cadaver bone and synthetic filling materials) are often implanted along with internal fixation to fill bony gaps or facilitate the healing process to avoid delayed union or non-union (incomplete fracture healing) results. Both pre-clinical and clinical investigations have shown positive results, suggesting our technology could potentially be developed as an adjunct to these surgeries or primary treatment protocol for delayed or non-union events.





## Non-Medical Uses For Our Shockwave Technology

We believe there are significant license/partnership opportunities for our shockwave technology in non-medical uses, including in the energy, water, food and industrial markets.

Due to their powerful pressure gradients and localized cavitational effects, we believe that high-energy, acoustic pressure shock waves can be used to clean, in an energy efficient manner, contaminated fluids from impurities, bacteria, viruses and other harmful micro-organisms, which provides opportunities for our technology in cleaning industrial and domestic/municipal waters. Based on the same principles of action of the acoustic pressure shock waves against bacteria, viruses and harmful micro-organisms, we believe our technology can be applied for cleaning or sterilization of various foods such as milk, natural juices and meats.

In the energy sector, we believe that the acoustic pressure shock waves can be used to improve oil recovery (IOR), as a supplement to or in conjunction with existing fracking technology, which utilizes high pressurized water/gases to crack the rocks that trapped oil in the underground reservoir. Through the use of our high-energy, acoustic pressure shock waves the efficiency can be improved and in the same time the environmental impact of the fracking process can be reduced. Furthermore, we believe our technology can be used for enhanced oil recovery (EOR) based on the changes in oil flow characteristics resulting from acoustic pressure shock wave stimulation, as a tertiary method of oil recovery from older oil fields.

Additionally, we demonstrated through two studies performed at Montana State University that high-energy, acoustic pressure shock waves are disrupting biofilms and thus can be used for surface cleaning or to unclog pipes in the energy industry (shore or off-shore installations), food industry and water management industry, which will reduce or eliminate down times with significant financial benefits for maintenance of existing infrastructure.

## Market Trends

We are focused on the development of regenerative medicine products that have the potential to address substantial unmet clinical needs across broad market indications. We believe there are limited therapeutic treatments currently available that directly and reproducibly activate healing processes in the areas in which we are focusing, particularly for wound care and repair of certain types of musculoskeletal conditions.

According to AdvaMed and Centers for Medicare & Medicaid Services data and our internal projections, the United States advanced wound healing market for the dermaPACE is estimated at \$5 billion, which includes diabetic foot ulcers, pressure sores, burns and traumatic wounds, and chronic mixed leg ulcers. We also believe there are significant opportunities in the worldwide orthopedic and spine markets, driven by aging baby boomers and their desire for active lifestyles well into retirement and the growth in the incidence of osteoporosis, osteoarthritis, obesity, diabetes and other diseases that cause injury to orthopedic tissues and/or impair the ability of the body to heal injuries.

With the success of negative pressure wound therapy devices in the wound care market over the last decade and the recognition of the global epidemic associated with certain types of wounds, as well as deteriorating musculoskeletal conditions attributed to various disease states such as obesity, diabetes and ischemia due to vascular and heart disease, as well as sports injuries, we believe that Medicare and private insurers have become aware of the costs and expenditures associated with the adjunctive therapies being utilized for wound healing and orthopedic conditions with limited efficacies in full skin closure, or bone and tissue regeneration. We believe the wound healing and orthopedic markets are undergoing a transition, and market participants are interested in biological response activating devices that are applied noninvasively and seek to activate the body's own capabilities for regeneration of tissue at injury sites in a cost-effective manner.

## Strategy

Our primary objective is to be a leader in the development and commercialization of our acoustic pressure shock wave technology for regenerative medicine and other applications. Our initial focus is regenerative medicine – utilizing noninvasive (extracorporeal), acoustic pressure shock waves to produce a biological response resulting in the body healing itself through the repair and regeneration of skin, musculoskeletal tissue and vascular structures. Our lead regenerative product in the United States is the dermaPACE device for treating diabetic foot ulcers, which was subject to two double-blinded, randomized Phase III clinical studies. The results of these clinical studies were submitted to the FDA in late July 2016, after our in-person meeting to discuss the submission strategy. On December 28, 2017, the FDA determined that the criteria at section 513(a)(1)(A) of (B) of the FD&C Act were met, and granted the de novo clearance classifying the dermaPACE as Class II and available to be marketed immediately.



Our portfolio of healthcare products and product candidates activate biologic signaling and angiogenic responses, including new vascularization and microcirculatory improvement, helping to restore the body's normal healing processes and regeneration. We intend to apply our Pulsed Acoustic Cellular Expression (PACE) technology in wound healing, orthopedic, plastic/cosmetic and cardiovascular conditions.

Our immediate goal for our regenerative medicine technology involves leveraging the knowledge we gained from our existing human heel and elbow indications to enter the advanced wound care market with innovative treatments.

The key elements of our strategy include the following:

Obtain FDA approval for our dermaPACE device to treat diabetic foot ulcers.

We are focusing initially on obtaining FDA approval in the United States for our lead product candidate, dermaPACE, for the treatment of diabetic foot ulcers, which we believe represents a large, unmet need. The FDA granted approval of our Investigational Device Exemption (IDE) to conduct two double-blinded, randomized clinical trials utilizing our lead device product for the global wound care market, the dermaPACE device, in the treatment of diabetic foot ulcers. Management has completed the analysis phase of clinical trial data from both trials and submitted a de novo petition to the FDA requesting review and classification of the dermaPACE for treating diabetic foot ulcers as a Class II device in July 2016 with approval being granted by the FDA on December 28, 2017.

Develop and commercialize our noninvasive biological response activating devices in the regenerative medicine area for the treatment of tissue, musculoskeletal and vascular structures.

We intend to use our proprietary technologies and know-how in the use of high-energy, acoustic pressure shock waves to address unmet medical needs in wound care, orthopedic, plastic/cosmetic and cardiovascular indications, possibly through potential license and/or partnership arrangements.

License and seek partnership opportunities for our non-medical shockwave technology platform, know-how and extensive patent portfolio.

We intend to use our acoustic pressure shock wave technology and know-how for non-medical uses, including energy, food, water cleaning, and other industrial markets, through license/partnership opportunities.

Support the global distribution of our products.

Our portfolio of products, the dermaPACE and orthoPACE, are CE Marked and sold through select distributors in certain countries in Europe, Canada, Asia and Asia/Pacific. Our revenues are from sales of the devices and related applicators in these markets. We currently do not have any commercial products available for sale in the United States. We intend to continue to add additional distribution partners in Europe and Asia/Pacific.

#### Scientific Advisors

We have established a network of advisors that brings expertise in wound healing, orthopedics, cosmetics, clinical and scientific research, and FDA experience. We consult our scientific advisors on an as-needed basis on clinical and pre-clinical study design, product development, and clinical indications.

We pay consulting fees to certain members of our scientific advisory board for the services they provide to us, in addition to reimbursing them for incurred expenses. The amounts vary depending on the nature of the services. We paid our advisors aggregate consulting fees through the issuance of stock options in 2016 and 2015 and recorded stock-based compensation expense of \$30,421 and \$11,107 for the years ended December 31, 2016 and 2015, respectively.

#### Sales, Marketing and Distribution

Following FDA approval in December 2017, we intend to seek a development and/or commercialization partnership, or to commercialize a product ourselves. Outside the United States, we retain distributors to represent our products in selective international markets. These distributors have been selected based on their existing business relationships and the ability of their sales force and distribution capabilities to effectively penetrate the market with our PACE product line. We rely on these distributors to manage physical distribution, customer service and billing services for our international customers.



## Manufacturing

We have developed a network of suppliers, manufacturers and contract service providers to provide sufficient quantities of our products.

We are party to a manufacturing supply agreement with Swisstronics Contract Manufacturing AG in Switzerland, a division of Cicor Technologies Ltd., covering the generator box component of our products. Our generator boxes are manufactured in accordance with applicable quality standards (EN ISO 13485) and applicable industry and regulatory standards. We produce the applicators and applicator kits for our products. In addition, we program and load software and perform the final product testing and certifications internally for all of our devices.

Our facility in Suwanee, Georgia consists of 7,500 square feet and provides office, research and development, quality control, production and warehouse space. It is a FDA registered facility and is ISO 13485 certified (for meeting the requirements for a comprehensive management system for the design and manufacture of medical devices).

## Intellectual Property

Our success depends in part on our ability to obtain and maintain proprietary protection for our products, product candidates, technology and know-how, to operate without infringing on the proprietary rights of others and to prevent others from infringing upon our proprietary rights. We seek to protect our proprietary position by, among other methods, filing United States and selected foreign patent applications and United States and selected foreign trademark applications related to our proprietary technology, inventions, products and improvements that are important to the development of our business. Effective trademark, service mark, copyright, patent and trade secret protection may not be available in every country in which our products are made available. The protection of our intellectual property may require the expenditure of significant financial and managerial resources.

## Patents

We consider the protection afforded by patents important to our business. We intend to seek and maintain patent protection in the United States and select foreign countries where deemed appropriate for products that we develop. There are no assurances that any patents will result from our patent applications, or that any patents that may be issued will protect our intellectual property, or that any issued patents or pending applications will not be successfully challenged, including as to ownership and/or validity, by third parties. In addition, if we do not avoid infringement of the intellectual property rights of others, we may have to seek a license to sell our products, defend an infringement action or challenge the validity of intellectual property in court. Any current or future challenges to our patent rights, or challenges by us to the patent rights of others, could be expensive and time consuming.

We derive our patent rights, including as to both issued patents and “patent pending” applications, from three sources: (1) assignee of patent rights in technology we developed; (2) assignee of patent rights purchased from HealthTronics, Inc. (“HealthTronics”); and (3) as licensee of certain patent rights assigned to HealthTronics. In August 2005, we purchased a majority of our current patents and patent applications from HealthTronics, to whom we granted back perpetual and royalty-free field-of-use license rights in the purchased patent portfolio primarily for urological uses. We believe that our owned and licensed patent rights provide a competitive advantage with respect to others that might seek to utilize certain of our apparatuses and methods incorporating extracorporeal shockwave technologies that we have patented; however, we do not hold patent rights that cover all of our products, product components, or methods that utilize our products. We also have not conducted a competitive analysis or valuation with respect to our issued and pending patent portfolio in relation to our current products and/or competitor products.



We are the assignee of twenty-five issued United States patents and fourteen issued foreign patents which on average have remaining useful lives of ten years or longer. Our current issued United States and foreign patents include patent claims directed to particular electrode configurations, piezoelectric fiber shockwave devices, chemical components for shockwave generation and detachable therapy heads with data storage. Our United States patents also include patent claims directed to methods of using acoustic shockwaves, including shockwave devices such as our products, to treat ischemic conditions, spinal cord scar tissue and spinal injuries, body tissues under positive pressure, bone surface gaps, and, within particular treatment parameters, diabetic foot ulcers and pressure sores. While such patented method claims may provide patent protection against certain indirect infringing promotion and sales activities of competing manufacturers and distributors, certain medical methods performed by medical practitioners or related health care entities may be subject to exemption from potential infringement claims under 35 U.S.C. § 287(c) and, therefore, may limit enforcement of claims of our method patents as compared to device and non-medical method patents.



We also currently maintain six United States non-provisional patent applications, three provisional patent applications and four foreign patent applications. Our patent-pending rights include inventions directed to certain shockwave devices and systems, ancillary products and components for shockwave treatment devices, and various methods of using acoustic pressure waves. Such patent-pending methods include, for example, using acoustic pressure waves to treat soft tissue disorders, bones, joints, wounds, skin, blood vessels and circulatory disorders, lymphatic disorders, cardiac tissue, fat and cellulite, cancer, blood and fluids sterilization, and to destroy pathogens. All of our United States and foreign pending applications either have yet to be examined or require response to an examiner's office action rejections and, therefore, remain subject to further prosecution, the possibility of further rejections and appeals, and/or the possibility we may elect to abandon prosecution, without assurance that a patent may issue from any pending application.

Under our license to HealthTronics, we reserve exclusive rights in our purchased portfolio as to orthopedic, tendonopathy, skin wounds, cardiac, dental and neural medical conditions and to all conditions in animals (Ortho Field). HealthTronics receives field-exclusive and sub licensable rights under the purchased portfolio as to (1) certain HealthTronics lithotripsy devices in all fields other than the Ortho Field, and (2) all products in the treatment of renal, ureteral, gall stones and other urological conditions (Litho Field). HealthTronics also receives non-exclusive and non-sub licensable rights in the purchased portfolio as to any products in all fields other than the Ortho Field and Litho Field.

Pursuant to mutual amendment and other assignment-back rights under the patent license agreement with HealthTronics, we are also a licensee of certain patents and patent applications that have been assigned to HealthTronics. We received a perpetual, non-exclusive and royalty-free license to nine (9) issued foreign patents. Our non-exclusive license is subject to HealthTronics' sole discretion to further maintain any of the patents and pending applications assigned back to HealthTronics.

As part of the sale of the veterinary business in June 2009, we have also granted certain exclusive and non-exclusive patent license rights to Pulse Veterinary Technologies, LLC under most of our patent portfolio issued before 2009 to utilize shockwave technologies in the field of non-human mammals.

Given our international patent portfolio, there are growing risks of challenges to our existing and future patent rights. Such challenges may result in invalidation or modification of some or all of our patent rights in a particular patent territory, and reduce our competitive advantage with respect to third party products and services. Such challenges may also require the expenditure of significant financial and managerial resources.

If we become involved in future litigation or any other adverse intellectual property proceeding, for example, as a result of an alleged infringement, or a third party alleging an earlier date of invention, we may have to spend significant amounts of money and time and, in the event of an adverse ruling, we could be subject to liability for damages, including treble damages, invalidation of our intellectual property and injunctive relief that could prevent us from using technologies or developing products, any of which could have a significant adverse effect on our business, financial condition and results of operation. In addition, any claims relating to the infringement of third party proprietary rights, or earlier date of invention, even if not meritorious, could result in costly litigation or lengthy governmental proceedings and could divert management's attention and resources and require us to enter into royalty or license agreements which are not advantageous, if available at all.

#### Trademarks

Since other products on the market compete with our products, we believe that our product brand names are an important factor in establishing and maintaining brand recognition.

We have the following trademark registrations: SANUWAVE® (United States, European Community, Canada, Japan, Switzerland, Taiwan and under the Madrid Protocol), dermaPACE® (United States, European Community, Japan, South Korea, Switzerland, Taiwan, Canada and under the Madrid Protocol), angioPACE® (Australia, European Community and Switzerland), PACE® (Pulsed Acoustic Cellular Expression) (United States, European Community, China, Hong Kong, Singapore, Switzerland, Taiwan, and Canada), orthoPACE® (United States and European Community), DAP® (Diffused Acoustic Pressure) (United States) and Profile™ (United States, European Community and Switzerland).

We also maintain trademark registrations for: OssaTron® (United States and Germany), evoPACE® (Australia, European Community and Switzerland), Evotron® (Germany and Switzerland), Evotrode® (Germany and Switzerland), HMT® (Switzerland), Orthotripsy® (United States), Reflectron® (Germany and Switzerland), and Reflectrode® (Germany and Switzerland).

#### Potential Intellectual Property Issues

Although we believe that the patents and patent applications, including those that we license, provide a competitive advantage, the patent positions of biotechnology and medical device companies are highly complex and uncertain. The medical device industry is characterized by the existence of a large number of patents and frequent litigation based on allegations of patent infringement. Our success will depend in part on us not infringing on patents issued to others, including our competitors and potential competitors, as well as our ability to enforce our patent rights. We also rely on trade secrets, know-how, continuing technological innovation and in-licensing opportunities to develop and maintain our proprietary position.



Despite any measures taken to protect our intellectual property, unauthorized parties may attempt to copy aspects of our products and product candidates, or to obtain and use information that we regard as proprietary. In enforcement proceedings in Switzerland, we are currently assisting HealthTronics as an informer of misappropriation by SwiTech and related third parties of intellectual property rights in legacy proprietary software and devices relating to assets we purchased from HealthTronics in August 2005. Such present or future actions against violations of our intellectual property rights may result in us incurring material expense and divert the attention of management.

Third parties that license our proprietary rights, such as trademarks, patented technology or copyrighted material, may also take actions that diminish the value of our proprietary rights or reputation. In addition, the steps we take to protect our proprietary rights may not be adequate and third parties may infringe or misappropriate our copyrights, trademarks, trade dress, patents and similar proprietary rights.

We collaborate with other persons and entities on research, development and commercialization activities and expect to do so in the future. Disputes may arise about inventorship and corresponding rights in know-how and inventions resulting from the joint creation or use of intellectual property by us and our collaborators, researchers, licensors, licensees and consultants. In addition, other parties may circumvent any proprietary protection that we do have. As a result, we may not be able to maintain our proprietary position.

## Competition

We believe the advanced wound care market can benefit from our technology which up-regulates the biological factors that promote wound healing. Current technologies developed by Kinetic Concepts, Inc. (“KCI”), Organogenesis, Inc., Smith & Nephew plc, Derma Sciences, Inc., Molnlycke Health Care, and Systagenix Wound Management (US), Inc. manage wounds, but, in our opinion, do not provide the value proposition to the patients and care givers like our PACE technology has the potential to do. The leading medical device serving this market is the Vacuum Assisted Closure (“V.A.C.”) System marketed by KCI. The V.A.C. is a negative pressure wound therapy device that applies suction to debride and manage wounds.

There are also several companies that market extracorporeal shockwave device products targeting lithotripsy and orthopedic markets, including Dornier MedTech, Storz Medical AG and Tissue Regeneration Technologies, LLC, and could ultimately pursue the wound care market. Nevertheless, we believe that dermaPACE has a competitive advantage over all of these existing technologies by achieving wound closure by means of a minimally invasive process through innate biological response to PACE.

Developing and commercializing new products is highly competitive. The market is characterized by extensive research and clinical efforts and rapid technological change. We face intense competition worldwide from medical device, biomedical technology and medical products and combination products companies, including major pharmaceutical companies. We may be unable to respond to technological advances through the development and introduction of new products. Most of our existing and potential competitors have substantially greater financial, marketing, sales, distribution, manufacturing and technological resources. These competitors may also be in the process of seeking FDA or other regulatory approvals, or patent protection, for new products. Our competitors may commercialize new products in advance of our products. Our products also face competition from numerous existing products and procedures, which currently are considered part of the standard of care. In order to compete effectively, our products will have to achieve widespread market acceptance.

## Regulatory Matters

### FDA Regulation

Each of our products must be approved or cleared by the FDA before it is marketed in the United States. Before and after approval or clearance in the United States, our product candidates are subject to extensive regulation by the FDA under the Federal Food, Drug, and Cosmetic Act and/or the Public Health Service Act, as well as by other regulatory bodies. FDA regulations govern, among other things, the development, testing, manufacturing, labeling, safety, storage, record-keeping, market clearance or approval, advertising and promotion, import and export, marketing and sales, and distribution of medical devices and pharmaceutical products.

In the United States, the FDA subjects medical products to rigorous review. If we do not comply with applicable requirements, we may be fined, the government may refuse to approve our marketing applications or to allow us to manufacture or market our products, and we may be criminally prosecuted. Failure to comply with the law could result in, among other things, warning letters, civil penalties, delays in approving or refusal to approve a product candidate, product recall, product seizure, interruption of production, operating restrictions, suspension or withdrawal of product approval, injunctions, or criminal prosecution.





The FDA has determined that our technology and product candidates constitute “medical devices.” The FDA determines what center or centers within the FDA will review the product and its indication for use, and also determines under what legal authority the product will be reviewed. For the current indications, our products are being reviewed by the Center for Devices and Radiological Health. However, we cannot be sure that the FDA will not select a different center and/or legal authority for one or more of our other product candidates, in which case the governmental review requirements could vary in some respects.

#### FDA Approval or Clearance of Medical Devices

In the United States, medical devices are subject to varying degrees of regulatory control and are classified in one of three classes depending on the extent of controls the FDA determines are necessary to reasonably ensure their safety and efficacy:

Class I: general controls, such as labeling and adherence to quality system regulations;

Class II: special controls, pre-market notification (510(k)), specific controls such as performance standards, patient registries, and postmarket surveillance, and additional controls such as labeling and adherence to quality system regulations; and

Class III: special controls and approval of a pre-market approval (“PMA”) application.

Each of our product candidates require FDA authorization prior to marketing, by means of either a 510(k) clearance or a PMA approval. We are currently proceeding on the basis that dermaPACE is a Class III device requiring a PMA approval. To date, we have corresponded with the FDA pertaining to possible reclassification of PACE technology for certain indications within the Class II designation. The FDA continues to maintain that PACE should remain a Class III technology. Reclassification of the technology is possible but the path through the FDA for such reclassification will be lengthy and involved.

To request marketing authorization by means of a 510(k) clearance, we must submit a pre-market notification demonstrating that the proposed device is substantially equivalent to another legally marketed medical device, has the same intended use, and is as safe and effective as a legally marketed device and does not raise different questions of safety and effectiveness than does a legally marketed device. 510(k) submissions generally include, among other things, a description of the device and its manufacturing, device labeling, medical devices to which the device is substantially equivalent, safety and biocompatibility information, and the results of performance testing. In some cases, a 510(k) submission must include data from human clinical studies. Marketing may commence only when the FDA issues a clearance letter finding substantial equivalence. After a device receives 510(k) clearance, any product modification that could significantly affect the safety or effectiveness of the product, or that would constitute a significant change in intended use, requires a new 510(k) clearance or, if the device would no longer be substantially equivalent, would require a PMA. If the FDA determines that the product does not qualify for 510(k) clearance, then a company must submit and the FDA must approve a PMA before marketing can begin.

In the past, the 510(k) pathway for product marketing required only the proof of significant equivalence in technology for a given indication with a previously cleared device. Currently, there has been a trend of the FDA requiring additional clinical work to prove efficacy in addition to technological equivalence. Thus, no matter which regulatory pathway we may take in the future towards marketing products in the United States, we will be required to provide clinical proof of device effectiveness.

Within the past few years, the FDA has released guidelines for the FDA's reviewers to use during a product's submission review process. This guidance provides the FDA reviewers with a uniform method of evaluating the benefits versus the risks of a device when used for a proposed specific indication. Such a benefit/risk evaluation is very useful when applied to a novel device or to a novel indication and provides the FDA with a consistent tool to document their decision process. While intended as a guide for internal FDA use, the public availability of this guidance allows medical device manufacturers to use the review matrix to develop sound scientific and clinical backup to support proposed clinical claims and to help guide the FDA, through the decision process, to look at the relevant data. We intend to use this benefit/risk tool in our FDA submissions.



A PMA application must provide a demonstration of safety and effectiveness, which generally requires extensive pre-clinical and clinical trial data. Information about the device and its components, device design, manufacturing and labeling, among other information, must also be included in the PMA. As part of the PMA review, the FDA will inspect the manufacturer's facilities for compliance with Quality System Regulation requirements, which govern testing, control, documentation and other aspects of quality assurance with respect to manufacturing. If the FDA determines the application or manufacturing facilities are not acceptable, the FDA may outline the deficiencies in the submission and often will request additional testing or information. Notwithstanding the submission of any requested additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval. During the review period, an FDA advisory committee, typically a panel of clinicians and statisticians, is likely to be convened to review the application and recommend to the FDA whether, or upon what conditions, the device should be approved. The FDA is not bound by the advisory panel decision. While the FDA often follows the panel's recommendation, there have been instances where the FDA has not. If the FDA finds the information satisfactory, it will approve the PMA. The PMA approval can include post-approval conditions, including, among other things, restrictions on labeling, promotion, sale and distribution, or requirements to do additional clinical studies post-approval. Even after approval of a PMA, a new PMA or PMA supplement is required to authorize certain modifications to the device, its labeling or its manufacturing process. Supplements to a PMA often require the submission of the same type of information required for an original PMA, except that the supplement is generally limited to that information needed to support the proposed change from the product covered by the original PMA.

During the review of either a PMA application or 510(k) submission, the FDA may request more information or additional studies and may decide that the indications for which we seek approval or clearance should be limited. We cannot be sure that our product candidates will be approved or cleared in a timely fashion or at all. In addition, laws and regulations and the interpretation of those laws and regulations by the FDA may change in the future. We cannot foresee what effect, if any, such changes may have on us.

Obtaining medical device clearance, approval, or licensing in the United States or abroad can be an expensive process. The fees for submitting an original PMA to the FDA for consideration of device approval are substantial. Fees for supplement PMA's are less costly but still can be substantial. International fee structures vary from minimal to substantial, depending on the country. In addition, we are subject to annual establishment registration fees in the United States and abroad. Device licenses require periodic renewal with associated fees as well. In the United States, there is an annual requirement for submitting device reports for Class III/PMA devices, along with an associated fee. Currently, we are registered as a Small Business Manufacturer with the FDA and as such are subject to reduced fees. If, in the future, our revenues exceed a certain annual threshold limit, we may not qualify for the Small Business Manufacturer reduced fee amounts and will be required to pay full fee amounts.

#### Clinical Trials of Medical Devices

One or more clinical trials are almost always required to support a PMA application and more recently are becoming necessary to support a 510(k) submission. Clinical studies of unapproved or uncleared medical devices or devices being studied for uses for which they are not approved or cleared (investigational devices) must be conducted in compliance with FDA requirements. If an investigational device could pose a significant risk to patients, the sponsor company must submit an IDE application to the FDA prior to initiation of the clinical study. An IDE application must be supported by appropriate data, such as animal and laboratory test results, showing that it is safe to test the device on humans and that the testing protocol is scientifically sound. The IDE will automatically become effective 30 days after receipt by the FDA unless the FDA notifies the company that the investigation may not begin. Clinical studies of investigational devices may not begin until an institutional review board (IRB) has approved the study.

During the study, the sponsor must comply with the FDA's IDE requirements. These requirements include investigator selection, trial monitoring, adverse event reporting, and record keeping. The investigators must obtain patient

informed consent, rigorously follow the investigational plan and study protocol, control the disposition of investigational devices, and comply with reporting and record keeping requirements. We, the FDA, or the IRB at each institution at which a clinical trial is being conducted may suspend a clinical trial at any time for various reasons, including a belief that the subjects are being exposed to an unacceptable risk. During the approval or clearance process, the FDA typically inspects the records relating to the conduct of one or more investigational sites participating in the study supporting the application.

#### Post-Approval Regulation of Medical Devices

After a device is cleared or approved for marketing, numerous and pervasive regulatory requirements continue to apply. These include:

the FDA Quality Systems Regulation (QSR), which governs, among other things, how manufacturers design, test, manufacture, exercise quality control over, and document manufacturing of their products;

labeling and claims regulations, which prohibit the promotion of products for unapproved or “off-label” uses and impose other restrictions on labeling;

the Medical Device Reporting regulation, which requires reporting to the FDA of certain adverse experiences associated with use of the product;

correction and removal reporting regulations, which require that manufacturers report to the FDA field corrections and device recalls or removals if undertaken to reduce a risk to health posed by the device or to remedy a violation of the FDCA caused by the device which may present a risk to health;

post-market surveillance regulations, which apply to Class II or III devices if the FDA has issued a post-market surveillance order and the failure of the device would be reasonably likely to have serious adverse health consequences, the device is expected to have significant use in the pediatric population, the device is intended to be implanted in the human body for more than one year, or the device is intended to be used to support or sustain life and to be used outside a user facility;

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

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



We continue to be subject to inspection by the FDA to determine our compliance with regulatory requirements, as are our suppliers, contract manufacturers, and contract testing laboratories.

International sales of medical devices manufactured in the United States that are not approved or cleared by the FDA are subject to FDA export requirements. Exported devices are subject to the regulatory requirements of each country to which the device is exported. Exported devices may also fall under the jurisdiction of the United States Department of Commerce/Bureau of Industry and Security and compliance with export regulations may be required for certain countries.

#### Federal Trade Commission Regulatory Oversight

We are subject to Federal Trade Commission (“FTC”) regulatory oversight. Under the Federal Trade Commission Act (“FTC Act”), the FTC is empowered, among other things, to (a) prevent unfair methods of competition and unfair or deceptive acts or practices in or affecting commerce; (b) seek monetary redress and other relief for conduct injurious to consumers; and (c) gather and compile information and conduct investigations relating to the organization, business, practices, and management of entities engaged in commerce. The FTC has very broad enforcement authority, and failure to abide by the substantive requirements of the FTC Act and other consumer protection laws can result in administrative or judicial penalties, including civil penalties, injunctions affecting the manner in which we would be able to market dermaPACE, orthoPACE, OssaTron and Evotron in the future, or criminal prosecution.

#### Manufacturing cGMP Requirements

Manufacturers of medical devices are required to comply with FDA manufacturing requirements contained in the FDA’s current Good Manufacturing Practices (cGMP) set forth in the quality system regulations promulgated under section 520 of the Food, Drug and Cosmetic Act. cGMP regulations require, among other things, quality control and quality assurance as well as the corresponding maintenance of records and documentation. The manufacturing facility for our products must meet cGMP requirements to the satisfaction of the FDA pursuant to a pre-PMA approval inspection before we can use it. We and some of our third party service providers are also subject to periodic inspections of facilities by the FDA and other authorities, including procedures and operations used in the testing and manufacture of our products to assess our compliance with applicable regulations. Failure to comply with statutory and regulatory requirements subjects a manufacturer to possible legal or regulatory action, including the seizure or recall of products, injunctions, consent decrees placing significant restrictions on or suspending manufacturing operations, and civil and criminal penalties. Adverse experiences with the product must be reported to the FDA and could result in the imposition of marketing restrictions through labeling changes or in product withdrawal. Product approvals may be withdrawn if compliance with regulatory requirements is not maintained or if problems concerning safety or efficacy of the product occur following the approval.

#### International Regulation

We are subject to regulations and product registration requirements in many foreign countries in which we may sell our products, including in the areas of product standards, packaging requirements, labeling requirements, import and export restrictions and tariff regulations, duties and tax requirements. The time required to obtain clearance required by foreign countries may be longer or shorter than that required for FDA clearance, and requirements for licensing a product in a foreign country may differ significantly from FDA requirements.

The primary regulatory environment in Europe is the European Union, which consists of 28 member states encompassing most of the major countries in Europe. In the European Union, the European Medicines Agency (EMA) and the European Union Commission have determined that dermaPACE, orthoPACE, OssaTron and Evotron will be regulated as medical device products. These devices have been determined to be Class IIb devices. These devices are

CE Marked and as such can be marketed and distributed within the European Economic Area.

The primary regulatory body in Canada is Health Canada. In addition to needing appropriate data to obtain market licensing in Canada, we must have an ISO 13485:2003 certification, as well as meet additional requirements of Canadian laws. We currently maintain this certification. We maintain a device license for dermaPACE with Health Canada for the indication of “devices for application of shockwaves (pulsed acoustic waves) on acute and chronic defects of the skin and subcutaneous soft tissue”.

The primary regulatory bodies and paths in Asia and Australia are determined by the requisite country authority. In most cases, establishment registration and device licensing are applied for at the applicable Ministry of Health through a local intermediary. The requirements placed on the manufacturer are typically the same as those contained in ISO 9001 or ISO 13485.

#### European Good Manufacturing Practices

In the European Union, the manufacture of medical devices is subject to good manufacturing practice (GMP), as set forth in the relevant laws and guidelines of the European Union and its member states. Compliance with GMP is generally assessed by the competent regulatory authorities. Typically, quality system evaluation is performed by a Notified Body, which also recommends to the relevant competent authority for the European Community CE Marking of a device. The Competent Authority may conduct inspections of relevant facilities, and review manufacturing procedures, operating systems and personnel qualifications. In addition to obtaining approval for each product, in many cases each device manufacturing facility must be audited on a periodic basis by the Notified Body. Further inspections may occur over the life of the product.

In April 2017, the Medical Device Regulation was adopted to replace the Medical Device Directive (93/42/EEC) as amended. The Medical Device Regulation will apply after a three-year transition period and imposes stricter requirements for the marketing and sale of medical devices and grants Notified Bodies increased post-market surveillance authority. We may be subject to risks associated with additional testing, modification, certification, or amendment of our existing market authorizations, or we may be required to modify products already installed at our customers' facilities to comply with the official interpretations of these revised regulations.





## United States Anti-Kickback and False Claims Laws

In the United States, there are Federal and state anti-kickback laws that prohibit the payment or receipt of kickbacks, bribes or other remuneration intended to induce the purchase or recommendation of healthcare products and services. Violations of these laws can lead to civil and criminal penalties, including exclusion from participation in Federal healthcare programs. These laws are potentially applicable to manufacturers of products regulated by the FDA as medical devices, such as us, and hospitals, physicians and other potential purchasers of such products. Other provisions of Federal and state laws provide civil and criminal penalties for presenting, or causing to be presented, to third-party payers for reimbursement, claims that are false or fraudulent, or which are for items or services that were not provided as claimed. In addition, certain states have implemented regulations requiring medical device and pharmaceutical companies to report all gifts and payments over \$50 to medical practitioners. This does not apply to instances involving clinical trials. Although we intend to structure our future business relationships with clinical investigators and purchasers of our products to comply with these and other applicable laws, it is possible that some of our business practices in the future could be subject to scrutiny and challenge by Federal or state enforcement officials under these laws.

## Third Party Reimbursement

We anticipate that sales volumes and prices of the products we commercialize will depend in large part on the availability of coverage and reimbursement from third party payers. Third party payers include governmental programs such as Medicare and Medicaid, private insurance plans, and workers' compensation plans. These third party payers may deny coverage and reimbursement for a product or therapy, in whole or in part, if they determine that the product or therapy was not medically appropriate or necessary. The third party payers also may place limitations on the types of physicians or clinicians that can perform specific types of procedures. In addition, third party payers are increasingly challenging the prices charged for medical products and services. Some third party payers must also pre-approve coverage for new or innovative devices or therapies before they will reimburse healthcare providers who use the products or therapies. Even though a new product may have been approved or cleared by the FDA for commercial distribution, we may find limited demand for the device until adequate reimbursement has been obtained from governmental and private third party payers.

In international markets, reimbursement and healthcare payment systems vary significantly by country, and many countries have instituted price ceilings on specific product lines and procedures. There can be no assurance that procedures using our products will be considered medically reasonable and necessary for a specific indication, that our products will be considered cost-effective by third party payers, that an adequate level of reimbursement will be available or that the third party payers' reimbursement policies will not adversely affect our ability to sell our products profitably.

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

One of the components in the reimbursement decision by most private insurers and governmental payers, including the Centers for Medicare & Medicaid Services, which administers Medicare, is the assignment of a billing code. Billing codes are used to identify the procedures performed when providers submit claims to third party payers for reimbursement for medical services. They also generally form the basis for payment amounts. We will seek new billing codes for the wound care indications of our products as part of our efforts to commercialize such products.

The initial phase of establishing a professional billing code for a medical service typically includes applying for a CPT Category III code. This is a tracking code without relative value assigned that allows third party payers to identify and monitor the service as well as establish value if deemed medically necessary. The process includes CPT application submission, clinical discussion with Medical Professional Society CPT advisors as well as American Medical Association (AMA) CPT Editorial Panel review. A new CPT Category III code will be assigned if the AMA CPT Editorial Panel committee deems it meets the applicable criteria and is appropriate. In 2011, we received two CPT Category III codes for extracorporeal shock wave therapy (ESWT) in wound healing.

The secondary phase in the CPT billing code process includes the establishment of a permanent CPT Category I code in which relative value is analyzed and established by the AMA. The approval of this code, is based on, among other criteria, widespread usage and established clinical efficacy of the medical service.

There are also billing codes that facilities, rather than health care professionals, utilize for the reimbursement of operating costs for a particular medical service. For the hospital outpatient setting, the Centers for Medicare & Medicaid Services automatically classified the new ESWT wound healing CPT Category III codes into interim APC groups. The APC groups are services grouped together based on clinical characteristics and similar costs. An APC classification does not guarantee payment.

In the United States, there have been and continue to be a number of legislative initiatives to contain healthcare costs. As described in the section of this prospectus entitled “Risk Factors – Risks related to our Business,” the PPACA made changes that have significantly impacted healthcare providers, insurers, and pharmaceutical and medical device manufacturers.

In addition, other legislative changes have been proposed and adopted since the PPACA was enacted. These changes included an aggregate reduction in Medicare payments to providers of up to 2% per fiscal year, which went into effect on April 1, 2013 and will remain in effect through 2025 unless additional Congressional action is taken. On January 2, 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, further reduced Medicare payments to several types of providers, including hospitals, imaging centers and cancer treatment centers. The Medicare Access and CHIP Reauthorization Act of 2015, enacted on April 16, 2015 (“MACRA”), repealed the formula by which Medicare made annual payment adjustments to physicians and replaced the former formula with fixed annual updates and a new system of incentive payments scheduled to begin in 2019 that are based on various performance measures and physicians’ participation in alternative payment models such as accountable care organizations. Individual states in the U.S. have also become increasingly aggressive in passing legislation and implementing regulations designed to control product pricing, including price or patient reimbursement constraints and discounts, and require marketing cost disclosure and transparency measures.



There have also been judicial and congressional challenges to certain aspects of the PPACA, as well as efforts by the U.S. administration to modify, repeal, or otherwise invalidate all, or certain provisions of, the PPACA. Since January 2017, the U.S. President has signed two Executive Orders designed to delay the implementation of certain provisions of the PPACA or otherwise circumvent some of the requirements for health insurance mandated by the PPACA. The current U.S. administration has also announced that it will discontinue the payment of cost-sharing reduction (“CSR”) payments to insurance companies until Congress approves the appropriation of funds for the CSR payments. The loss of the CSR payments is expected to increase premiums on certain policies issued by qualified health plans under the PPACA. A bipartisan bill to appropriate funds for CSR payments has been introduced in the Senate, but the future of that bill is uncertain. In addition, CMS has recently proposed regulations that would give states greater flexibility in setting benchmarks for insurers in the individual and small group marketplaces, which may have the effect of relaxing the essential health benefits required under the PPACA for plans sold through such marketplaces. Because of the Tax Cuts and Jobs Act enacted on December 22, 2017, the PPACA's individual mandate penalty for not having health insurance coverage will be eliminated starting in 2019. Further, each chamber of Congress has put forth multiple bills designed to repeal or repeal and replace portions of the PPACA. Although the majority of these measures have not been enacted by Congress to date, Congress will likely continue to consider other legislation to repeal or repeal and replace elements of the PPACA.

We believe that the overall escalating costs of medical products and services has led to, and will continue to lead to, increased pressures on the healthcare industry to reduce the costs of products and services. In addition, recent healthcare reform measures, as well as legislative and regulatory initiatives at the Federal and state levels, create significant additional uncertainties. There can be no assurance that third party coverage and reimbursement will be available or adequate, or that future legislation, regulation, or reimbursement policies of third party payers will not adversely affect the demand for our products or our ability to sell these products on a profitable basis. The unavailability or inadequacy of third party payer coverage or reimbursement would have a material adverse effect on our business, operating results and financial condition.

#### Environmental and Occupational Safety and Health Regulations

Our operations are subject to extensive Federal, state, provincial and municipal environmental statutes, regulations and policies, including those promulgated by the Occupational Safety and Health Administration, the United States Environmental Protection Agency, Environment Canada, Alberta Environment, the Department of Health Services, and the Air Quality Management District, that govern activities and operations that may have adverse environmental effects such as discharges into air and water, as well as handling and disposal practices for solid and hazardous wastes. Some of these statutes and regulations impose strict liability for the costs of cleaning up, and for damages resulting from, sites of spills, disposals, or other releases of contaminants, hazardous substances and other materials and for the investigation and remediation of environmental contamination at properties leased or operated by us and at off-site locations where we have arranged for the disposal of hazardous substances. In addition, we may be subject to claims and lawsuits brought by private parties seeking damages and other remedies with respect to similar matters. We have not to date needed to make material expenditures to comply with current environmental statutes, regulations and policies. However, we cannot predict the impact and costs those possible future statutes, regulations and policies will have on our business.

#### Research and Development

For the years ended December 31, 2016 and 2015, we spent \$1,128,640 and \$2,172,819, respectively, on research and development activities which consists of clinical trial expenses for the dermaPACE diabetic foot ulcer clinical study in the United States and research costs by partnering universities for non-medical uses of the PACE technology.

#### Employees

As of February 5, 2018, we had a total of seven full time employees in the United States. Of these, five were engaged in research and development which includes clinical, regulatory and quality. None of our employees are represented by a labor union or covered by a collective bargaining agreement. We believe our relationship with our employees is good.

#### Properties

Our operations, production and research and development office is in a leased facility in Suwanee, Georgia, consisting of 7,500 square feet of space. Under the terms of the lease, we pay monthly rent of \$10,844, as adjusted on an annual basis for additional proportionate operating and insurance costs associated with the building over the base amount. The term of the lease is 65 months.

#### Legal Proceedings

There are no material pending legal proceedings to which we are a party or of which any of our properties are subject; nor are there material proceedings known to us to be contemplated by any governmental authority.

There are no material proceedings known to us, pending or contemplated, in which any of our directors, officers or affiliates or any of our principal security holders, or any associate of any of the foregoing, is a party or has an interest adverse to us.

#### MANAGEMENT, EXECUTIVE COMPENSATION AND CORPORATE GOVERNANCE

Below are the names and certain information regarding the Company's executive officers and directors.



Name	Age	Position Held
Kevin A. Richardson, II	49	Director, Chairman and Acting Chief Executive Officer
Lisa E. Sundstrom	48	Chief Financial Officer
Peter Stegagno	58	Vice President, Operations
Iulian Cioanta, PhD	55	Vice President, Research and Development
John F. Nemelka	52	Director
Alan L. Rubino	63	Director
A. Michael Stolarski	47	Director
Maj-Britt Kaltoft	54	Director

Kevin A. Richardson, II joined the Company as chairman of the board of directors in October of 2009 and joined SANUWAVE, Inc. as chairman of the board of directors in August of 2005. In November 2012, upon the resignation of the Company's former President and Chief Executive Officer, Christopher M. Cashman, Mr. Richardson assumed the role of Active Chief Executive Officer, in addition to remaining Chairman of the Board, through the hiring of Mr. Chiarelli in February 2013. In April 2014, Mr. Richardson assumed the role of Co-Chief Executive Officer. When Mr. Chiarelli departed the Company in 2014, Mr. Richardson again assumed the role as Acting Chief Executive Officer. Mr. Richardson brings to our board of directors a broad array of financial knowledge for healthcare and other industries. Since 2004, Mr. Richardson served as managing partner of Prides Capital LLC, an investment management firm, until its liquidation in September 2015.

Lisa E. Sundstrom joined the Company as Controller in October of 2006, and in August of 2015, assumed the responsibilities of Interim Chief Financial Officer. In December 2015, Ms. Sundstrom was promoted to Chief Financial Officer. Ms. Sundstrom has extensive financial accounting experience with Automatic Data Processing (ADP) and Mitsubishi Consumer Electronics. She began her career with a small public accounting firm, Carnevale & Co., P.C., was Senior Accountant at Mitsubishi Consumer Electronics responsible for the close process and was Accounting Manager for the Benefit Services division of ADP and assisted in the documentation of internal controls for Sarbanes-Oxley compliance. Ms. Sundstrom holds a Bachelor of Science in Accounting from the State University of New York at Geneseo.

Peter Stegagno joined the Company as Vice President, Operations in March 2006. Mr. Stegagno brings to the Company sixteen years experience in the medical device market encompassing manufacturing, design and development, quality assurance and international and domestic regulatory affairs. He most recently served as Vice President of Quality and Regulatory Affairs for Elekta, and other medical device companies including Genzyme Biosurgery. Before focusing on the medical field, Mr. Stegagno enjoyed a successful career encompassing production roles in the space industry, including avionics guidance systems for military applications and control computers for the space shuttle. Mr. Stegagno graduated from Tufts University with a Bachelor of Science degree in Chemical Engineering.

Iulian Cioanta, PhD joined the Company in June 2007 as Vice President of Research and Development. Dr. Cioanta most recently served as Business Unit Manager with Cordis Endovascular, a Johnson & Johnson company. Prior to that, Dr. Cioanta worked as Director of Development Engineering with Kensey Nash Corporation, Research Manager at AgroMed Inc. and Project Manager and Scientist with the Institute for the Design of Research Apparatus. Dr. Cioanta also worked in academia at Polytechnic University of Bucharest in Romania, Leicester University in the United Kingdom and Duke University in the United States. Dr. Cioanta received a Master of Science degree in Mechanical Engineering and Technology from the Polytechnic University of Bucharest and he earned his PhD degree in Biomedical Engineering from Duke University in the field of extracorporeal shock wave lithotripsy.

John F. Nemelka joined the Company as a member of the board of directors in October of 2009 and joined SANUWAVE, Inc. as a member of the board of directors in August of 2005. Mr. Nemelka founded NightWatch



Capital Group, LLC, an investment management business, and served as its Managing Principal since its incorporation in July 2001 until its liquidation in December 2015. From 1997 to 2000, he was a Principal at Graham Partners, a private investment firm and affiliate of the privately-held Graham Group. From 2000 to 2001, Mr. Nemelka was a Consultant to the Graham Group. Mr. Nemelka brings to our board of directors a diverse background with both financial and operations experience. He holds a B.S. degree in Business Administration from Brigham Young University and an M.B.A. degree from the Wharton School at the University of Pennsylvania.



Alan L. Rubino joined the Company as a member of the board of directors in September of 2013. Mr. Rubino has served as President and Chief Executive Officer of Emisphere Technologies, Inc. since September, 2012. Previously, Mr. Rubino served as the CEO and President of New American Therapeutics, Inc., CEO and President of Akrimax Pharmaceuticals, LLC., and President and COO of Pharmos Corporation. Mr. Rubino has continued to expand upon a highly successful and distinguished career that included Hoffmann-La Roche Inc. where he was a member of the U.S. Executive and Operating Committees and a Securities and Exchange Commission (SEC) corporate officer. During his Roche tenure, he held key executive positions in marketing, sales, business operations, supply chain and human resource management, and was assigned executive committee roles in marketing, project management, and globalization. Mr. Rubino also held senior executive positions at PDI, Inc. and Cardinal Health. He holds a BA in economics from Rutgers University with a minor in biology/chemistry and completed post-graduate educational programs at the University of Lausanne and Harvard Business School. Mr. Rubino serves on the boards of Aastrom Biosciences, Inc. and Genisphere, LLC and is also on the Rutgers University Business School Board of Advisors.

A. Michael Stolarski joined the Company as a member of the board of directors in April 2016. Mr. Stolarski founded Premier Shockwave, Inc. in October 2008 and has since served as its President & CEO. From 2005 to 2008, Mr. Stolarski was the Vice President of Business Development and, previously, Acting CFO of SANUWAVE, Inc. From 2001 to 2005, he was the President – Orthopaedic Division and Vice President of Finance for HealthTronics Surgical Services, Inc. From 1994 to 2001, he was the CFO and Controller of the Lithotripsy Division, Internal Auditor, and Paralegal of Integrated Health Services, Inc. Mr. Stolarski brings to our board an in-depth understanding of the orthopaedic and podiatric shockwave market. In addition to being a Certified Public Accountant in the state of Maryland (inactive), he holds a M.S. in Finance from Loyola College, Baltimore a B.S. in Accounting and a B.S. in Finance from the University of Maryland, College Park.

Dr. Maj-Britt Kaltoft joined the Company as a member of the board of directors in June 2017. Dr. Kaltoft brings 20 years of international specialization in development and successful execution of business development strategies, contractual structures and alliance management within all sectors of the life science industry. Dr. Kaltoft currently heads the business development and patent functions at the Danish State Serum Institute, an institution under the Danish Ministry of Health. She has obtained outstanding results in the areas of business development, licensing and alliance management in the pharmaceutical and biotech industry at Lundbeck, Nycomed, EffRx and Novo Nordisk

Summary Compensation Table for Fiscal Years 2017 and 2016

The following table provides certain information concerning compensation earned for services rendered in all capacities by our named executive officers during the fiscal years ended December 31, 2017 and 2016.

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$)	Option Awards (\$)	Non Equity Incentive Plan Compensation (\$)	Nonqualified Deferred Compensation Earnings (\$)	All Other Compensation (\$)(3)	Total (\$)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
	2017	\$120,000(1)	-	\$130882(2)	-	-	-	-	\$234,021

Kevin A. Richardson, II Chairman of the Board and Acting Chief Executive Officer (principal executive officer)	2016	\$120,000(1)	-	\$114,021(2)	-	-	-	-	\$250,882
Lisa E. Sundstrom Chief Financial Officer (principal financial officer)	2017	\$115,000	-	\$88,352(2)	-	-	-	\$12,652	\$216,004
	2016	\$115,000	-	\$81,444(2)	-	-	-	\$13,284	\$209,728
Peter Stegano Vice President, Operations	2017	\$200,000	-	\$88,352(2)	-	-	-	\$13,498	\$301,850
	2016	\$200,000	-	\$81,444(2)	-	-	-	\$13,339	\$294,783
Iulian Cioanta Vice President, Research and Development	2017	\$200,000	-	\$88,352(2)	-	-	-	\$19,583	\$307,935
	2016	\$200,000	-	\$81,444(2)	-	-	-	\$19,892	\$301,336

(1) Mr. Richardson has been the Company's Chairman of the Board since the Company's inception. Since 2014, Mr. Richardson has also been our Acting Chief Executive Officer. We continue to compensate Mr. Richardson as a director as described in "Discussion of Director Compensation" below, however we pay him an additional \$10,000 per month in recognition of his additional role as Acting Chief Executive Officer.

(2) This dollar amount reflects the full fair value of the grant at the date of issuance and is recognized for financial statement reporting purposes with respect to each fiscal year over the vesting terms in accordance with ASC 718-10.

(3) Includes health, dental, life and disability insurance premiums and 401(k) matching contributions.

#### Stock Incentive Plan

On October 24, 2006, SANUWAVE, Inc.'s board of directors adopted the 2006 Stock Incentive Plan of SANUWAVE, Inc. (the "2006 Plan"). On November 1, 2010, the Company approved the Amended and Restated 2006 Stock Incentive Plan of SANUWAVE Health, Inc. effective as of January 1, 2010 (previously defined as the "Stock Incentive Plan").

The Stock Incentive Plan permits grants of awards to selected employees, directors and advisors of the Company in the form of restricted stock or options to purchase shares of common stock. Options granted may include nonstatutory options as well as qualified incentive stock options. The Stock Incentive Plan is currently administered by the board of directors of the Company. The Stock Incentive Plan gives broad powers to the board of directors of the Company to administer and interpret the particular form and conditions of each option. The stock options granted under the Stock Incentive Plan are nonstatutory options which vest over a period of up to three years, and have a maximum ten year term. The options are granted at an exercise price equal to the fair market value of the common stock on the date of the grant which is approved by the board of directors of the Company. The Stock Incentive Plan had 22,500,000 shares of common stock reserved for grant at December 31, 2016 and had 12,500,000 shares of common stock reserved for grant at December 31, 2015.



The terms of the options granted under the Stock Incentive Plan expire as determined by individual option agreements (or on the tenth anniversary of the grant date), unless terminated earlier on the first to occur of the following: (1) the date on which the participant's service with the Company is terminated by the Company for cause; (2) 60 days after the participant's death; or (3) 60 days after the termination of the participant's service with the Company for any reason other than cause or the participant's death; provided that, if during any part of such 60 day period the option is not exercisable solely because of specified securities law restrictions, the option will not expire until the earlier of the expiration date or until it has been exercisable for an aggregate period of 60 days after the termination of the participant's service with the Company. The options vest as provided for in each individual's option agreement and the exercise prices for the options are determined by the board of directors at the time the option is granted; provided that the exercise price shall in no event be less than the fair market value per share of the Company's Common Stock on the grant date. In the event of any change in the Common Stock underlying the options, by reason of any merger or exchange of shares of common stock, the board of directors shall make such substitution or adjustment as it deems to be equitable to (1) the class and number of shares underlying such option, (2) the exercise price applicable to such option, or (3) any other affected terms of such option.

In the event of a change of control, unless specifically modified by an individual option agreement: (1) all options outstanding as of the date of such change of control will become fully vested; and (2) notwithstanding (1) above, in the event of a merger or share exchange, the board of directors may, in its sole discretion, determine that any or all options granted pursuant to the Stock Incentive Plan will not vest on an accelerated basis if the board of directors, the surviving corporation or the acquiring corporation, as the case may be, has taken such action as in the opinion of the board of directors is equitable or appropriate to protect the rights and interests of the participants under the Stock Incentive Plan.

On December 31, 2017, there were 2,238,281 shares of common stock available for grant under the Stock Incentive Plan. For the years ended December 31, 2017 and 2016, there were 2,700,000 and 4,067,800 options, respectively, granted to the Company's executive officers under the Stock Incentive Plan.

#### Outstanding Equity Awards at 2017 Fiscal Year End

The following table provides certain information concerning the outstanding equity awards for each named executive officer as of December 31, 2017.





Name	Option Awards			Stock Awards					
	Number of Securities Underlying Unexercised Options/ Warrants (#) Exercisable	Number of Securities Underlying Unexercised Options/ Warrants (#) Unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Options (#)	Option/ Warrant Exercise Price (\$)	Option/ Warrant Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Stock That Have Not Vested (\$)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Rights That Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Rights That Have Not Vested (\$)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Kevin A. Richardson, II Chairman of the Board and Co-Chief Executive Officer (principal executive officer)	115,000(1)	-	-	\$0.35	02/21/2023	-	-	-	-
	452,381(3)	-	-	\$0.11	10/1/2025	-	-	-	-
	297,619(3)	-	-	\$0.06	10/1/2025	-	-	-	-
	700,000(4)	-	-	\$0.04	6/16/2026	-	-	-	-
	594,300(5)	-	-	\$0.18	11/9/2026	-	-	-	-
	900,000(6)	-	-	\$0.11	6/14/2027	-	-	-	-
	640,000(7)	-	-	\$0.11	3/17/2019	-	-	-	-
Lisa Sundstrom Chief Financial Officer (principal executive officer)	65,000(1)	-	-	\$0.35	02/21/2023	-	-	-	-
	25,000(2)	-	-	\$0.55	5/7/2024	-	-	-	-
	301,587(3)	-	-	\$0.11	10/1/2025	-	-	-	-
	198,413(3)	-	-	\$0.06	10/1/2025	-	-	-	-

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	500,000(4)	-	-	\$0.04	6/16/2026	-	-	-	-
	424,500(5)	-	-	\$0.18	11/9/2026	-	-	-	-
	600,000(6)	-	-	\$0.11	6/14/2027	-	-	-	-
	440,000(7)	-	-	\$0.11	3/17/2019	-	-	-	-
Peter Stegano	333,644(1)	-	-	\$0.35	02/21/2023	-	-	-	-
Vice									
President,	50,000(2)	-	-	\$0.55	5/7/2024	-	-	-	-
Operations									
	301,587(3)	-	-	\$0.11	10/1/2025	-	-	-	-
	198,413(3)	-	-	\$0.06	10/1/2025	-	-	-	-
	500,000(4)	-	-	\$0.04	6/16/2026	-	-	-	-
	424,500(5)	-	-	\$0.18	11/9/2026	-	-	-	-
	600,000(6)	-	-	\$0.11	6/14/2027	-	-	-	-
	440,000(7)	-	-	\$0.11	3/17/2019	-	-	-	-
Iulian Cioanta	296,241(1)	-	-	\$0.35	02/21/2023	-	-	-	-
Vice									
President,	50,000(2)	-	-	\$0.55	5/7/2024	-	-	-	-
Research and									
Development									
	301,587(3)	-	-	\$0.11	10/1/2025	-	-	-	-
	198,413(3)	-	-	\$0.06	10/1/2025	-	-	-	-
	500,000(4)	-	-	\$0.04	6/16/2026	-	-	-	-
	424,500(5)	-	-	\$0.18	11/9/2026	-	-	-	-
	600,000(6)	-	-	\$0.11	6/14/2027	-	-	-	-
	440,000(7)	-	-	\$0.11	3/17/2019	-	-	-	-

(1) On February 21, 2013, the Company, by mutual agreement with all active employees and directors of the Company, cancelled options granted to the active employees and directors in the year ended December 31, 2011 and prior. In exchange for these

options, the active employees and directors received new options to purchase shares of common stock at an exercise price of \$0.35 per share. The Company cancelled all options which were previously granted to Mr. Richardson, Ms. Sundstrom,

Mr. Stegagno and Mr. Cioanta. The Company granted Mr. Richardson 115,000 options, Ms. Sundstrom 65,000 options, Mr. Stegagno 333,644 options and Mr. Cioanta 296,241 options on February 21, 2013 which vests one-third at grant date,

one-third on February 21, 2014 and one-third on February 21, 2015.

(2) The Company granted Ms. Sundstrom 25,000 options, Mr. Stegagno 50,000 options and Mr. Cioanta 50,000 options on May 7, 2014 which vests one-third at grant date, one-third on May 7, 2015 and one-third on May 7, 2016.

(3) The Company granted Mr. Richardson 750,000 options, Ms. Sundstrom 500,000 options, Mr. Stegagno 500,000 options and Mr. Cioanta 500,000 options on October 1, 2015 which vests at grant date.

(4) The Company granted Mr. Richardson 700,000 options, Ms. Sundstrom 500,000 options, Mr. Stegagno 500,000 options and Mr. Cioanta 500,000 options on June 16, 2016 which vests at grant date.

(5) The Company granted Mr. Richardson 594,300 options, Ms. Sundstrom 424,500 options, Mr. Stegagno 424,500 options and Mr. Cioanta 424,500 options on November 9, 2016 which vests at grant date.

(6) The Company granted Mr. Richardson 900,000 options, Ms. Sundstrom 600,000 options, Mr. Stegagno 600,000 options and Mr. Cioanta 600,000 options on June 15, 2017 which vests at grant date.

(7) The Company granted Mr. Richardson 640,000 warrants, Ms. Sundstrom 440,000 warrants, Mr. Stegagno 440,000 warrants and Mr. Cioanta 440,000 warrants on December 11, 2017 which vests at grant date.





## Director Compensation Table for Fiscal 2017

The following table provides certain information concerning compensation for each director during the fiscal year ended December 31, 2017.

Name	Fees Earned or Paid in Cash (\$)	Stock Awards (\$)	Option Awards (\$)	Non Equity Incentive Plan Compensation (\$)	Nonqualified Deferred Compensation Earnings (\$)	All Other Compensation (\$)	Total (\$)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Kevin A. Richardson, II (1)	\$24,000	-	\$130,882	-	-	-	\$154,882
John F. Nemelka	\$24,000	-	\$42,530	-	-	-	\$66,530
Alan L. Rubino	\$24,000	-	\$42,530	-	-	-	\$66,530
A. Michael Stolarski	\$24,000	-	\$42,530	-	-	-	\$66,530
Maj-Britt Kaltoft	\$13,000	-	\$42,530	-	-	-	\$55,530

(1) Mr. Richardson has been the Company's Chairman of the Board since the Company's inception. Since 2014, Mr. Richardson has also been our Acting Chief Executive Officer. We continue to compensate Mr. Richardson as a director as described in "Discussion of Director Compensation" below, however we pay him an additional \$10,000 per month in recognition of his additional role as Acting Chief Executive Officer.

The following are the aggregate number of option awards outstanding that have been granted to each of our non-employee directors as of December 31, 2017: Kevin A. Richardson, II – 3,059,300; John F. Nemelka – 1,034,800; Alan L. Rubino – 1,019,800; A. Michael Stolarski – 669,800; and Maj-Britt Kaltoft – 300,000.

## Discussion of Director Compensation

Effective January 1, 2017, the Company began to compensate its three outside directors at an annual rate of \$24,000 each. On June 15, 2017, the Company issued 900,000 options to purchase the Company's common stock at \$0.11 per share to non-employee director Kevin A. Richardson II and the Company issued 300,000 to purchase the Company's common stock at \$0.11 per share to non-employee directors John F. Nemelka, Alan L. Rubino, A. Michael Stolarski and Maj-Britt Kaltoft. On November 9, 2016, the Company issued 594,300 options to purchase the Company's common stock at \$0.18 per share to non-employee director Kevin A. Richardson II and the Company issued 169,800 to purchase the Company's common stock at \$0.18 per share to non-employee directors John F. Nemelka, Alan L. Rubino and A. Michael Stolarski. On June 16, 2016, the Company issued 700,000 options to purchase the Company's common stock at \$0.04 per share to non-employee director Kevin A. Richardson II and the Company issued 200,000 to purchase the Company's common stock at \$0.04 per share to non-employee directors John F. Nemelka, Alan L. Rubino and A. Michael Stolarski. On October 1, 2015, the Company issued 452,381 options to purchase the Company's common stock at \$0.11 per share and 297,619 options to purchase the Company's common stock at \$0.50 per share to non-employee director Kevin A. Richardson II and the Company issued 150,795 options to purchase the Company's common stock at \$0.11 per share and 99,205 options to purchase the Company's common stock at \$0.50 per share to non-employee directors John F. Nemelka and Alan L. Rubino. On September 3, 2013, the Company issued 100,000 options to purchase the Company's common stock at \$0.65 per share to non-employee director Alan L. Rubino. On February 21, 2013, the Company, by mutual agreement with all the active employees and directors of the Company, cancelled options granted to the active employees and directors in the year ended December 31, 2011 and prior. In exchange for these options, the active employees and directors received new options to purchase shares of common stock at an exercise price of \$0.35 per share. Kevin A. Richardson, II, and John F. Nemelka, each cancelled 15,000 options and were each issued 115,000 options at an exercise price of \$0.35 per share.

## Committee Interlocks and Insider Participation

The Compensation Committee is comprised of Kevin A. Richardson, II, John F. Nemelka, A. Michael Stolarski and Alan L. Rubino. Mr. Richardson, Mr. Nemelka and Mr. Stolarski have had certain relationships and related party transactions described further in the section entitled "Certain Relationships and Related Transactions—Related Party Transactions." During 2017, none of our executive officers served as a director or member of a compensation committee (or other committee serving an equivalent function) of any other entity whose executive officers served as a director or member of the Compensation Committee.



## CORPORATE GOVERNANCE AND BOARD MATTERS

The Company adopted a formal Corporate Governance policy in January 2012 which included establishing formal board committees and a code of conduct for the board of directors and the Company.

### The Board of Directors

#### Board's Leadership Structure

The Company's board of directors elects the Company's chief executive officer and its chairman, and each of these positions may be held by the same person or may be held by two persons. The Company's board of directors has determined that it is currently in the best interest of the Company and its shareholders to separate the roles of chairman of the board and chief executive officer. The chairman's primary responsibilities are to manage the board and serve as the primary liaison between the board of directors and the chief executive officer, while the primary responsibility of the chief executive officer is to manage the day-to-day affairs of the Company, taking into account the policies and directions of the board of directors. Such an arrangement promotes more open and robust communication among the board, and provides an efficient decision making process with proper independent oversight.

The Company believes, however, that there is no single leadership structure that is the best and most effective in all circumstances and at all times. Accordingly, the board of directors retains the authority to later combine these roles if doing so would be in the best interests of the Company and its shareholders.

The Company's board of directors is authorized to have an audit committee, a compensation committee and a nominating and corporate governance committee, to assist the Company's board of directors in discharging its responsibilities. The Company's current board of directors consists of five members, two of whom have been determined by the board to be "independent" as defined under the rules of the NASDAQ stock market. The board of directors has determined that Mr. Richardson, Mr. Nemelka and Mr. Stolarski are not independent under the applicable marketplace rules of the NASDAQ stock market and Rule 10A-3 under the Exchange Act. The Company expects to add additional independent directors in 2018.

#### Board's Role in Risk Oversight

While the Company's management is responsible for the day-to-day management of risk to the Company, the board of directors has broad oversight responsibility for the Company's risk management programs. The various committees of the board of directors assist the board of directors in fulfilling its oversight responsibilities in certain areas of risk. In particular, the audit committee focuses on financial and enterprise risk exposures, including internal controls, and discusses with management and the Company's independent registered public accountants the Company's policies with respect to risk assessment and risk management. The compensation committee is responsible for considering those risks that may be implicated by the Company's compensation programs and reviews those risks with the Company's board of directors and chief executive officer.

#### Audit Committee

The current members of the Company's audit committee are John F. Nemelka (Chairperson), Kevin A. Richardson, II and A. Michael Stolarski. Mr. Nemelka, who chairs the committee, has been determined by the board of directors to be an audit committee financial expert as defined pursuant to the rules of the SEC. Pursuant to the Company's Audit Committee Charter, the audit committee is required to consist of at least two independent directors. The Company expects to add additional independent directors to the board of directors in 2018.



The audit committee operates under a written charter adopted by the board of directors which is available on the Company's website at [www.sanuwave.com](http://www.sanuwave.com). The primary responsibility of the audit committee is to oversee the Company's financial reporting process on behalf of the board of directors. Among other things, the audit committee is responsible for overseeing the Company's accounting and financial reporting processes and audits of the Company's financial statements, reviewing and discussing with the independent auditors the critical accounting policies and practices for the Company, engaging in discussions with management and the independent auditors to assess risk for the Company and management thereof, and reviewing with management the effectiveness of the Company's internal controls and disclosure controls and procedures. The audit committee is directly responsible for the appointment, compensation, retention and oversight of the work of the Company's independent auditors, currently Cherry Bekaert, LLP, including the resolution of disagreements, if any, between management and the auditors regarding financial reporting. In addition, the audit committee is responsible for reviewing and approving any related party transaction that is required to be disclosed pursuant to Item 404 of Regulation S-K promulgated under the Exchange Act.



### Compensation Committee

The current members of the Company's compensation committee are Alan L. Rubino (Chairperson), Kevin A. Richardson, II, A. Michael Stolarski and Maj-Britt Kaltoft. The primary purpose of the compensation committee is to discharge the responsibilities of the board of directors relating to compensation of the Company's executive officers. Pursuant to the Company's Compensation Committee Charter, the compensation committee is required to consist of at least two independent directors. The Company expects to add additional independent directors to the board of directors in 2018.

The compensation committee operates under a written charter adopted by the board of directors which is available on the Company's website at [www.sanuwave.com](http://www.sanuwave.com). Specific responsibilities of the compensation committee include reviewing and recommending approval of compensation of the Company's named executive officers, administering the Company's stock incentive plan, and reviewing and making recommendations to the Company's board of directors with respect to incentive compensation and equity plans.

### Nominating and Corporate Governance Committee

The current members of the Company's nominating and corporate governance committee are Maj-Britt Kaltoft (chairperson), Kevin A. Richardson, II, John F. Nemeika and Alan L. Rubino. Pursuant to the Company's Nominating and Corporate Governance Committee Charter, the nominating and corporate governance committee is required to consist of at least two independent directors. The Company expects to add additional independent directors to the board of directors in 2018.

The nominating and corporate governance committee operates under a written charter adopted by the board of directors which is available on the Company's website at [www.sanuwave.com](http://www.sanuwave.com). Specific responsibilities of the nominating and corporate governance committee include: identifying and recommending nominees for election to the Company's board of directors; developing and recommending to the board of directors the Company's corporate governance principles; overseeing the evaluation of the board of directors; and reviewing and approving compensation for non-employee members of the board of directors.

The nominating and corporate governance committee's charter outlines how the nominating and corporate governance committee fulfills its responsibilities for assessing the qualifications and effectiveness of the current board members, assessing the needs for future board members, identifying individuals qualified to become members of the board and its committees, and recommending candidates for the board of director's selection as director nominees for election at the next annual or other properly convened meeting of shareholders.

The nominating and corporate governance committee considers director candidates recommended by shareholders for nomination for election to the board of directors. The committee applies the same standards in considering director candidates recommended by the shareholders as it applies to other candidates. Any shareholder entitled to vote for the election of directors may recommend a person or persons for consideration by the committee for nomination for election to the board of directors. The Company must receive written notice of such shareholder's recommended nominee(s) no later than January 31st of the year in which the shareholder wishes such recommendation to be considered by the committee in connection with the next meeting of shareholders at which the election of directors will be held. To submit a recommendation, a shareholder must give timely notice thereof in writing to the Secretary of the Company. A shareholder's notice to the Secretary shall set forth: (i) the name and record address of the shareholder making such recommendation and any other shareholders known by such shareholder to be supporting such recommendation; (ii) the class and number of shares of the Company which are beneficially owned by the shareholder and by any other shareholders known by such shareholder to be supporting such recommendation; (iii) the name, age and five year employment history of such recommended nominee; (iv) the reasons why the shareholder believes the

recommended nominee meets the qualifications to serve as a director of the Company; and (v) any material or financial interest of the shareholder and, if known, the recommended nominee in the Company.

#### Shareholder Communications with the Board of Directors

The board of directors has implemented a process for shareholders to send communications to the board of directors. Shareholders who wish to communicate directly with the board of directors or any particular director should deliver any such communications in writing to the Secretary of the Company. The Secretary will compile any communications he receives from shareholders and deliver them periodically to the board of directors or the specific directors requested. The Secretary of the Company will not screen or edit such communications, but will deliver them in the form received from the shareholder.

#### Code of Conduct and Ethics

It is the Company's policy to conduct its affairs in accordance with all applicable laws, rules and regulations of the jurisdictions in which it does business. The Company has adopted a code of business conduct and ethics with policies and procedures that apply to all associates (all employees are encompassed by this term, including associates who are officers) and directors, including the chief executive officer, chief financial officer, controller, and persons performing similar functions.



The Company has made the code of business conduct and ethics available on its website at [www.sanuwave.com](http://www.sanuwave.com). If any substantive amendments to the code of business conduct and ethics are made or any waivers are granted, including any implicit waiver, the Company will disclose the nature of such amendment or waiver on its website or in a Current Report on Form 8-K.

#### No Family Relationships Among Directors and Officers

There are no family relationships between any director or executive officer of the Company and any other director or executive officer of the Company.

#### Director Independence

Our board of directors has determined that Alan L. Rubino and Maj-Britt Kaltoft qualify as independent directors based on the NASDAQ Stock Market definition of "independent director."

#### Limitation of Directors Liability and Indemnification

The Nevada Revised Statutes authorize corporations to limit or eliminate, subject to certain conditions, the personal liability of directors to corporations and their stockholders for monetary damages for breach of their fiduciary duties. Our certificate of incorporation limits the liability of our directors to the fullest extent permitted by Nevada law.

We have director and officer liability insurance to cover liabilities our directors and officers may incur in connection with their services to us, including matters arising under the Securities Act of 1933, as amended. Our certificate of incorporation and bylaws also provide that we will indemnify our directors and officers who, by reason of the fact that he or she is one of our officers or directors, is involved in a legal proceeding of any nature.

There is no pending litigation or proceeding involving any of our directors, officers, employees or agents in which indemnification will be required or permitted. We are not aware of any threatened litigation or proceeding that may result in a claim for such indemnification.

#### Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our directors and executive officers, and persons who own more than 10% of our equity securities which are registered pursuant to Section 12 of the Exchange Act, to file with the SEC initial reports of ownership and reports of changes in ownership of our equity securities. Officers, directors and greater than 10% shareholders are required by SEC regulations to furnish us with copies of all Section 16(a) reports they file.

Based solely upon a review of the Forms 3, 4 and 5 (and amendments thereto) furnished to us for our fiscal year ended December 31, 2017, we have determined that our directors, officers and greater than 10% beneficial owners complied with all applicable Section 16 filing requirements.

#### Disclosure of Commission Position on Indemnification of Securities Act Liabilities

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer

or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

#### SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information, as of February 5, 2018, with respect to the beneficial ownership of the Company's outstanding Common Stock by (i) any holder of more than five percent (5.0%), (ii) each of the Company's executive officers and directors, and (iii) the Company's directors and executive officers as a group.





Name of Beneficial Owner (1)	Number of Shares	Percent of
	Beneficially Owned	Shares Outstanding (2)
Anthony M. Stolarski (3)	16,439,333	10.8%
Kevin A. Richardson, II (4)	12,549,870	8.5%
Lisa E. Sundstrom (5)	2,554,500	1.8%
John F. Nemelka (6)	1,246,055	0.9%
Alan Rubino (7)	1,219,800	0.9%
Maj-Britt Kaltoft (8)	500,000	0.4%
All directors and executive officers as a group (6 persons)	34,309,558	23.2%
5% Beneficial Owner:		
Jerome Gildner (9)	13,333,334	9.1%
John McDermott (9)	12,575,756	8.6%
James McGraw (9)	11,610,694	7.9%

(1) Unless otherwise noted, each beneficial owner has the same address as us.

(2) Applicable percentage ownership is based on 139,368,736 shares of common stock outstanding as of February 5, 2018, "Beneficial ownership" includes shares for which an individual, directly or indirectly, has or shares voting or investment power, or both, and also includes options that are exercisable within 60 days of February 5, 2018. Unless otherwise indicated, all of the listed persons have sole voting and investment power over the shares listed opposite their names. Beneficial ownership as reported in the above table has been determined in accordance with Rule 13d-3 of the Exchange Act.

(3) Includes options to purchase up to 669,800 shares of common stock, warrants to purchase up to 7,499,452 shares of common stock and 4,545,455 common shares available upon conversion of convertible promissory note.

(4) Includes options to purchase up to 3,059,300 shares of common stock, warrants to purchase up to 3,222,583 shares of common stock and 2,363,636 common shares available upon conversion of convertible promissory note. In addition, this amount includes 138,782 shares of common stock owned directly by Prides Capital Fund I, L.P. Prides Capital Partners LLC is the general partner of Prides Capital Fund I, L.P. and Mr. Richardson is the controlling shareholder of Prides Capital Partners LLC; therefore, under certain provisions of the Exchange Act, he may be deemed to be the beneficial owner of such securities. Mr. Richardson has also been deputized by Prides Capital Partners LLC to serve on the board of directors of the Company. Mr. Richardson disclaims beneficial ownership of all such securities except to the extent of any indirect pecuniary interest (within the meaning of Rule 16a-1 of the Exchange Act) therein.

(5) Consists of options to purchase up to 2,114,500 shares of common stock and warrants to purchase up to 440,000 shares of common stock.

(6) Includes options to purchase up to 1,034,800 shares of common stock and warrants to purchase up to 200,000 shares of common stock.

(7) Includes options to purchase up to 1,019,800 shares of common stock and warrants to purchase up to 200,000 shares of common stock.

(8) Includes options to purchase up to 300,000 shares of common stock and warrants to purchase up to 200,000 shares of common stock.

(9) Based on records of the Company.





## CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

### Related Party Transactions

Other than as described below, for the fiscal years ended December 31, 2016 and 2015, there were no transactions with related persons required to be disclosed in this report.

Anthony M. Stolarski, a member of our board of directors and an existing shareholder of the Company and Michael Nemelka, the brother of a member of our board of directors and an existing shareholder of the Company, were purchasers in the private placement described under “Selling Stockholders,” which information is incorporated by reference herein. The approximate dollar value of Mr. Stolarski’s investment was \$60,000, and the approximate dollar value of Mr. Nemelka’s investment was \$75,000.

On March 17, 2014, in conjunction with a private placement of securities (previously defined as the “2014 Private Placement”) with institutional and select accredited investors, the Company issued an aggregate total of 6,210,000 shares of common stock and 6,175 shares of preferred stock (the “Series A Convertible Preferred Stock”) for an aggregate total purchase price of \$9,280,000. Each share of Series A Convertible Preferred Stock is convertible into 2,000 shares of common stock at the option of the holder. The proceeds received by the Company were \$8,562,500, net of offering costs of \$717,500. The Company, in connection with the 2014 Private Placement, issued to the investors an aggregate total of 23,200,000 warrants (the “Series A Warrants”) to purchase shares of common stock at an exercise price of \$0.50 per share. Each Series A Warrant represents the right to purchase one share of common stock. The warrants vested upon issuance and expire after five years. In addition, the Company, in connection with the 2014 Private Placement, issued to the investors an aggregate total of 13,920,000 warrants (the “Series B Warrants”) to purchase shares of common stock at an exercise price of \$1.50 per share. Each Series B Warrant represents the right to purchase one share of common stock. The warrants vested upon issuance and expire after one year. Kevin A. Richardson, II, chairman of the board of directors of the Company and Co-Chief Executive Officer; Joseph Chiarelli, the former Chief Executive Officer and director of the Company; and, Michael N. Nemelka, the brother of a member of the Company’s board of directors and an existing shareholder of the Company, were purchasers in the 2014 Private Placement of \$50,000, \$40,000 and \$50,000, respectively.

During the period January 24, 2014 through March 7, 2014, the Company entered into subscriptions payable for 18% convertible promissory notes, as amended, (previously defined as the “18% Convertible Promissory Notes”) from selected accredited investors. Up to \$1,000,000 aggregate principal amount of 18% Convertible Promissory Notes were offered by the Company. The Company completed the offering and issued an aggregate \$815,000 in convertible notes in March 2014. Michael N. Nemelka, the brother of a member of the Company’s board of directors and an existing shareholder of the Company, purchased \$110,000 of the convertible notes.

On November 27, 2012, the Company and David N. Nemelka (the “Subscriber”), the brother of John F. Nemelka, a member of the Company’s board of directors, entered into a subscription agreement (the “Subscription Agreement”) whereby the Subscriber agreed to purchase from the Company, and the Company agreed to sell and issue, a total of 4,000,000 shares of the Company’s unregistered common stock at a purchase price equal to \$0.25 per share, for an aggregate sales price of \$1,000,000 (the “Purchase Price”). The Purchase Price shall be payable to the Company as follows: (i) \$50,000 on or before January 31, 2013; (ii) \$50,000 on or before February 15, 2013; and (iii) the balance of \$900,000 on or before May 27, 2014 (the “Outside Due Date”). The Subscriber could make payments of the Purchase Price at his discretion, in minimum installments of \$100,000 each, until the Outside Due Date. In the event that at any time after February 15, 2013, the Company’s total available cash should be less than \$100,000, the Subscriber would, upon demand of the Company, pay to the Company \$100,000 of the then outstanding balance of the Purchase Price, which payment would be due within thirty (30) days of the demand. There was no limit on the number of demands that the Company could make pursuant to this provision of the Subscription Agreement, provided, however, that in no

event could the Company provide more than one notice of demand for payment in any thirty (30) day period. As of December 31, 2012, the Subscriber had paid the Company \$25,000 and was issued 100,000 shares of unregistered common stock of the Company. During the year ended December 31, 2013, the Subscriber paid the Company an additional \$75,000 and was issued an additional 300,000 shares of unregistered common stock of the Company. On May 27, 2014, the Subscriber paid the Company the remaining \$900,000 and was issued 3,600,000 shares of unregistered common stock of the Company as full settlement of the Subscription Agreement.

#### DESCRIPTION OF SECURITIES TO BE REGISTERED

Our authorized capital stock consists of 355,000,000 shares, of which 350,000,000 shares are designated as Common Stock and 5,000,000 shares are designated as preferred stock. As of February 5, 2018, there were issued and outstanding:

139,368,736 shares of Common Stock,

warrants to purchase 97,847,760 shares of Common Stock at a weighted average exercise price of \$0.12 per share, and

stock options to purchase 21,593,385 shares of Common Stock at a weighted average exercise price of \$0.31 per share.



The following summary of the material provisions of our Common Stock, preferred stock and warrants is qualified by reference to the provisions of our articles of incorporation and bylaws and the forms of warrant included or incorporated by reference as exhibits to the registration statement of which this prospectus is a part.

### Common Stock

All shares of our Common Stock have equal voting rights and, when validly issued and outstanding, have one vote per share in all matters to be voted upon by the stockholders. Cumulative voting in the election of directors is not allowed, which means that the holders of more than 50% of the outstanding shares can elect all the directors if they choose to do so and, in such event, the holders of the remaining shares will not be able to elect any directors. The affirmative vote of a plurality of the shares of Common Stock voted at a stockholders meeting where a quorum is present is required to elect directors and to take other corporate actions. Holders of our Common Stock are entitled to receive ratably such dividends, if any, as may be declared by our board of directors out of legally available funds. However, the current policy of our board of directors is to retain earnings, if any, for the operation and expansion of the Company. Upon liquidation, dissolution or winding-up, the holders of our Common Stock are entitled to share ratably in all of our assets which are legally available for distribution, after payment of or provision for all liabilities and the liquidation preference of any outstanding preferred stock. The holders of our Common Stock have no preemptive, subscription, redemption or conversion rights. All issued and outstanding shares of Common Stock are, and the Common Stock reserved for issuance upon exercise of our stock options and warrants will be, when issued, fully-paid and non-assessable.

### Preferred Stock

Our articles of incorporation authorize the issuance of up to 5,000,000 shares of “blank check” preferred stock with designations, rights and preferences as may be determined from time to time by our board of directors.

### Warrants

The following is a brief summary of material provisions of the warrants offered in this offering.

**Exercise Price and Terms.** Each warrant entitles the holder thereof to purchase at any time until March 17, 2019, at a price of \$0.08 per share, subject to certain adjustments referred to below, shares of our Common Stock. The holder of any warrant may exercise such warrant by surrendering the warrant to us, with the notice of exercise properly completed and executed, together with payment of the exercise price. The warrants may be exercised at any time in whole or in part at the applicable exercise price until expiration of the warrants. No fractional shares will be issued upon the exercise of the warrants.

**Adjustments.** The exercise price and the number of shares of Common Stock purchasable upon the exercise of the warrants are subject to adjustment upon the occurrence of certain events, including stock dividends, stock splits, combinations or reclassifications of the Common Stock. Additionally, an adjustment would be made in the case of a reclassification or exchange of Common Stock, consolidation or merger of our Company with or into another corporation (other than a consolidation or merger in which we are the surviving corporation) or sale of all or substantially all of our assets in order to enable holders of the warrants to acquire the kind and number of shares of stock or other securities or property receivable in such event by a holder of the number of shares of Common Stock that might otherwise have been purchased upon the exercise of the warrant. No adjustment to the number of shares and exercise price of the shares subject to the warrants will be made for dividends (other than stock dividends), if any, paid on our Common Stock.

Transfer, Exchange and Exercise. The warrants may be presented to us for exchange or exercise at any time on or prior to March 17, 2019, at which time the warrants become wholly void and of no value. Prior to any transfer of the warrants the holder must notify us of the same and, if subsequently requested, provide a legal opinion regarding the transfer to us.

Warrantholder Not a Stockholder. The warrants do not confer upon holders any voting, dividend or other rights as a shareholder of our Company.

#### Trading Information

Our shares of Common Stock are currently quoted in the over-the-counter market on the OTCQB under the symbol "SNWV".





#### Transfer Agent

The transfer agent and registrar for our Common Stock and preferred stock is Action Stock Transfer Corp., 7069 S. Highland Drive, Suite 300, Salt Lake City, Utah 84121

#### SHARES AVAILABLE FOR FUTURE SALE

As of February 5, 2018, we had 139,368,736 shares of Common Stock outstanding, not including shares issuable upon the exercise of outstanding warrants, stock options and other convertible securities. All shares sold in this offering will be freely tradable without restriction or further registration under the Securities Act, unless they are purchased by our “affiliates,” as that term is defined in Rule 144 promulgated under the Securities Act.

The outstanding shares of our Common Stock not included in this prospectus will be available for sale in the public market as follows:

#### Public Float

Of our outstanding shares, 34,309,558 shares are beneficially owned by executive officers, directors and affiliates of the Company. The remaining 105,059,178 shares constitute our public float which, based on the last sale price of our Common Stock reported on the OTC Bulletin Board on February 5, 2018, equaled approximately \$21,011,836.

#### Rule 144

In general, under Rule 144, as currently in effect, a person who has beneficially owned shares of our Common Stock for at least six (6) months, including the holding period of prior owners other than affiliates, is entitled to sell his or her shares without any volume limitations; an affiliate, however, can sell such number of shares within any three-month period as does not exceed the greater of:

1% of the number of shares of our Common Stock then outstanding, which equaled 1,393,001 shares as of February 5, 2018, or

the average weekly trading volume of our Common Stock, assuming our shares are then traded on a national securities exchange, during the four calendar weeks preceding the filing of a notice on Form 144 with respect to that sale.

Sales under Rule 144 are also subject to manner-of-sale provisions, notice requirements and the availability of current public information about us.

#### LEGAL MATTERS

Certain legal matters will be passed upon for us by Smith, Gambrell & Russell, LLP, Atlanta, Georgia.

#### EXPERTS

The consolidated financial statements as of December 31, 2016 and for the year then ended included in this prospectus and in the registration statement have been so included in reliance on the report of Cherry Bekaert LLP, an independent registered public accounting firm, (the report on the financial statements contains an explanatory

paragraph regarding the Company's ability to continue as a going concern) appearing elsewhere herein and in the registration statement, given on the authority of said firm as experts in auditing and accounting.

The consolidated financial statements as of December 31, 2015 and for the year then ended included in this prospectus and in the registration statement have been so included in reliance on the report of BDO USA, LLP, an independent registered public accounting firm, (the report on the financial statements contains an explanatory paragraph regarding the Company's ability to continue as a going concern) appearing elsewhere herein and in the registration statement, given on the authority of said firm as experts in auditing and accounting.

#### INTEREST OF NAMED EXPERTS AND COUNSEL

No expert or counsel named in this prospectus as having prepared or certified any part of this prospectus or having given an opinion upon the validity of the securities being registered or upon other legal matters in connection with the registration or offering of the Common Stock was employed on a contingency basis, or had, or is to receive, in connection with the offering, a substantial interest, direct or indirect, in the registrant or any of its parents or subsidiaries. Nor was any such person connected with the registrant or any of its parents or subsidiaries as a promoter, managing or principal underwriter, voting trustee, director, officer, or employee.



WHERE YOU CAN FIND MORE INFORMATION; INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

We have filed a registration statement on Form S-1 with the SEC to register the shares of our Common Stock being offered by this prospectus. In addition, we file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any reports, statements or other information that we file at the SEC's public reference facilities at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information regarding the public reference facilities. The SEC maintains a website, <http://www.sec.gov> that contains reports, proxy statements and information statements and other information regarding registrants that file electronically with the SEC, including us. Our SEC filings are also available to the public from commercial document retrieval services. Information contained on our website should not be considered part of this prospectus.

The SEC allows the "incorporation by reference" of information into this prospectus, which means that information may be disclosed to you by referring you to other documents filed or which will be filed with the SEC. The following documents filed or to be filed by the Company with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act, other than information in these documents that is not deemed to be filed with the SEC are so incorporated by reference:

Annual Report of the Company on Form 10-K for the fiscal year ended December 31, 2016;

Quarterly Reports of the Company on Form 10-Q for the quarters ended March 31, June 30 and September 30, 2017;

Current Reports of the Company on Form 8-K filed with the SEC on January 24, April 6, May 18, June 16, July 27, August 4, August 17, September 29, November 9, November 22 and December 29, 2017; and

All documents subsequently filed by the Company pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of the offering (including filings made after the date of the post-effective amendment to the registration statement of which this prospectus is a part and prior to the effectiveness of such post-effective amendment).

All documents filed by the Company with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of this prospectus will be deemed to be incorporated by reference into this prospectus, other than information in the documents that is not deemed to be filed with the SEC.\* The Company will file an updated prospectus annually pursuant to the Securities Act. A statement contained in this prospectus or any prospectus supplement, or in a document incorporated or deemed to be incorporated by reference into this prospectus or any prospectus supplement, will be deemed to be modified or superseded to the extent that a statement contained in any subsequently filed document that is incorporated by reference into this prospectus or any prospectus supplement, modifies or supersedes that statement. Any statements so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus or the applicable prospectus supplement. The public may read and copy any materials the Company files with the SEC at the SEC's Public Reference Room located at 100 F Street, N.E., Washington, DC 20549 SEC and online at [www.sec.gov](http://www.sec.gov). More information concerning the operation of the Public Reference Room of the SEC may be obtained by calling the SEC at 1-800-SEC-0330 or visiting online at [www.sec.gov](http://www.sec.gov).

The Company, will provide to each person, including any beneficial owner, to whom a prospectus is delivered, a copy of any or all of the reports or documents that have been incorporated by reference in the prospectus contained in the registration statement but not delivered with the prospectus at no cost upon written or oral request. Such requests may

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be directed to the attention of SANUWAVE Health, Inc., 3360 Martin Farm Road, Suite 100, Suwanee, Georgia 30024 Attn: Lisa Sundstrom, Chief Financial Officer, Telephone: (770) 419-7525 or by email to [lisa.sundstrom@sanuwave.com](mailto:lisa.sundstrom@sanuwave.com). The reports and other documents incorporated by reference may also be accessed is <http://www.sanuwave.com>.

\*We are not incorporating and will not incorporate by reference into this prospectus past or future information on reports furnished or that will be furnished under Items 2.02 and/or 7.01 of, or otherwise with, Form 8-K.

You may also request a copy of our filings at no cost by writing or telephoning us at:

SANUWAVE Health, Inc.  
3360 Martin Farm Road, Suite 100  
Suwanee, Georgia 30024  
Attn: Lisa Sundstrom, Chief Financial Officer  
Telephone: (770) 419-7525



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SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
 CONDENSED CONSOLIDATED BALANCE SHEETS  
 (UNAUDITED)

	September 30, 2017	December 31, 2016
<b>ASSETS</b>		
<b>CURRENT ASSETS</b>		
Cash and cash equivalents	\$40,226	\$133,571
Accounts receivable, net of allowance for doubtful accounts of \$123,026 in 2017 and \$35,196 in 2016	172,119	460,799
Inventory, net	176,109	231,953
Prepaid expenses	103,539	87,823
<b>TOTAL CURRENT ASSETS</b>	<b>491,993</b>	<b>914,146</b>
<b>PROPERTY AND EQUIPMENT</b> , at cost, less accumulated depreciation (Note 4)	<b>59,395</b>	<b>76,938</b>
<b>OTHER ASSETS</b>	<b>13,922</b>	<b>13,786</b>
<b>TOTAL ASSETS</b>	<b>\$565,310</b>	<b>\$1,004,870</b>
<b>LIABILITIES</b>		
<b>CURRENT LIABILITIES</b>		
Accounts payable	\$1,435,431	\$712,964
Accrued expenses (Note 5)	459,735	375,088
Accrued employee compensation	65,154	64,860
Advances from related parties and accredited investors (Note 6)	751,616	-
Interest payable, related parties (Note 7)	535,125	109,426
Short term loan, net (Note 8)	100,000	47,440
Warrant liability (Note 12)	1,058,202	1,242,120
Notes payable, related parties, net (Note 7)	5,183,310	5,364,572
<b>TOTAL LIABILITIES</b>	<b>9,588,573</b>	<b>7,916,470</b>
<b>COMMITMENTS AND CONTINGENCIES (Note 13)</b>		
<b>STOCKHOLDERS' DEFICIT</b>		
<b>PREFERRED STOCK, SERIES A CONVERTIBLE</b> , par value \$0.001, 6,175 authorized; 6,175 shares issued and 0 shares outstanding in 2017 and 2016 (Note 11)	-	-
<b>PREFERRED STOCK, SERIES B CONVERTIBLE</b> , par value \$0.001, 293 authorized; 293 shares issued and 0 shares outstanding		

in 2017 and 2016, respectively (Note 11)	-	-
PREFERRED STOCK - UNDESIGNATED, par value \$0.001, 4,993,532 shares authorized; no shares issued and outstanding (Note 11)	-	-
COMMON STOCK, par value \$0.001, 350,000,000 shares authorized; 139,099,843 and 137,219,968 issued and outstanding in 2017 and 2016, respectively (Note 10)	139,100	137,220
ADDITIONAL PAID-IN CAPITAL	93,077,145	92,436,697
ACCUMULATED DEFICIT	(102,194,242)	(99,433,448)
ACCUMULATED OTHER COMPREHENSIVE LOSS	(45,266)	(52,069)
TOTAL STOCKHOLDERS' DEFICIT	(9,023,263)	(6,911,600)
TOTAL LIABILITIES AND STOCKHOLDERS' DEFICIT	\$565,310	\$1,004,870

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

SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS  
(UNAUDITED)

	Three Months Ended	Three Months Ended	Nine Months Ended	Nine Months Ended
	September 30,	September 30,	September 30,	September 30,
	2017	2016	2017	2016
REVENUES	\$161,585	\$255,652	\$422,199	\$728,382
COST OF REVENUES (exclusive of depreciation and amortization shown below)	61,684	98,678	141,523	249,847
OPERATING EXPENSES				
Research and development	266,837	266,473	965,084	1,052,595
General and administrative	475,377	645,863	1,875,891	1,734,891
Depreciation	5,465	1,554	17,543	3,227
Amortization	-	76,689	-	230,067
Gain on sale of property and equipment	-	-	-	(1,000)
TOTAL OPERATING EXPENSES	747,679	990,579	2,858,518	3,019,780
OPERATING LOSS	(647,778)	(833,605)	(2,577,842)	(2,541,245)
OTHER INCOME (EXPENSE)				
(Loss) Gain on warrant valuation adjustment and conversion	(41,681)	(43,536)	316,952	(812,983)
Interest expense, net	(160,978)	(259,302)	(496,997)	(623,066)
Loss on foreign currency exchange	(888)	(3,367)	(2,907)	(9,215)
TOTAL OTHER INCOME (EXPENSE), NET	(203,547)	(306,205)	(182,952)	(1,445,264)
NET LOSS	(851,325)	(1,139,810)	(2,760,794)	(3,986,509)
OTHER COMPREHENSIVE INCOME (LOSS)				
Foreign currency translation adjustments	20,570	(2,268)	6,803	(4,980)
TOTAL COMPREHENSIVE LOSS	\$(830,755)	\$(1,142,078)	\$(2,753,991)	\$(3,991,489)
LOSS PER SHARE:				
Net loss - basic and diluted	\$(0.01)	\$(0.01)	\$(0.02)	\$(0.04)

Weighted average shares outstanding - basic and diluted	139,099,843	115,528,604	138,711,527	97,798,261
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The accompanying notes to condensed consolidated financial statements are an integral part of these statements.

SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
 CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS  
 (UNAUDITED)

	Nine Months Ended	Nine Months Ended
	September 30,	September 30,
	2017	2016
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>		
Net loss	\$(2,760,794)	\$(3,986,509)
Adjustments to reconcile net loss to net cash used by operating activities		
to net cash used by operating activities		
Depreciation	17,543	3,227
Change in allowance for doubtful accounts	87,830	15,376
Amortization	-	230,067
Stock-based compensation - employees, directors and advisors	482,295	116,550
(Gain) Loss on warrant valuation adjustment	(316,952)	812,982
Amortization of debt discount	71,298	18,548
Amortization of debt issuance costs	-	114,522
Loss on conversion option of promissory note payable	-	75,422
Loss on conversion option of convertible debenture	-	50,100
Stock issued for consulting services	-	43,540
Gain on sale of property and equipment	-	(1,000)
Changes in assets - (increase)/decrease		
Accounts receivable - trade	200,850	(82,219)
Inventory	55,844	17,922
Prepaid expenses	(15,716)	755
Other	(136)	(2,843)
Changes in liabilities - increase/(decrease)		
Accounts payable	722,467	(133,173)
Accrued expenses	84,647	60,369
Accrued employee compensation	294	209,465
Interest payable, related parties	425,699	(239,803)
Promissory notes, accrued interest	-	(32,271)
<b>NET CASH USED BY OPERATING ACTIVITIES</b>	<b>(944,831)</b>	<b>(2,708,973)</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Proceeds from sale of property and equipment	-	1,000

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Purchases of property and equipment	-	(7,878)
NET CASH USED BY INVESTING ACTIVITIES	-	(6,878)
CASH FLOWS FROM FINANCING ACTIVITIES		
Proceeds from warrant exercise	93,067	32,000
Advances from related parties and accredited investors	751,616	-
Proceeds from 2016 Public Offering, net	-	1,596,855
Proceeds from 2016 Private Offering, net	-	1,528,200
Proceeds from convertible promissory notes, net	-	106,000
Proceeds from convertible debenture, net	-	175,000
Payment of convertible promissory notes	-	(155,750)
Payment of convertible debenture	-	(210,000)
NET CASH PROVIDED BY FINANCING ACTIVITIES	844,683	3,072,305
EFFECT OF EXCHANGE RATES ON CASH	6,803	(4,980)
NET (DECREASE) INCREASE IN CASH AND CASH EQUIVALENTS	(93,345)	351,474
CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD	133,571	152,930
CASH AND CASH EQUIVALENTS, END OF PERIOD	\$40,226	\$504,404
SUPPLEMENTAL INFORMATION		
Cash paid for interest, related parties	\$-	\$630,549
NONCASH INVESTING ACTIVITIES		
Cashless warrant conversion	\$66,966	\$-

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

SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS  
September 30, 2017

1. Nature of the Business

SANUWAVE Health, Inc. and subsidiaries (the “Company”) is an acoustic shock wave technology company using a patented system of noninvasive, high-energy, acoustic pressure shock waves for regenerative medicine and other applications. The Company’s initial focus is regenerative medicine – utilizing noninvasive (extracorporeal), acoustic shock waves to produce a biological response resulting in the body healing itself through the repair and regeneration of tissue, musculoskeletal and vascular structures. The Company’s lead regenerative product in the United States is the dermaPACE® device, used for treating diabetic foot ulcers, which was subject to two double-blinded, randomized Phase III clinical studies. The results of these clinical studies were submitted to the U.S. Food and Drug Administration (“FDA”) in late July 2016, after our in-person meeting to discuss the submission strategy.

The Company’s portfolio of healthcare products and product candidates activate biologic signaling and angiogenic responses, including new vascularization and microcirculatory improvement, helping to restore the body’s normal healing processes and regeneration. The Company intends to apply its Pulsed Acoustic Cellular Expression (PACE®) technology in wound healing, orthopedic, plastic/cosmetic and cardiac conditions. The Company currently does not market any commercial products for sale in the United States. Revenues are from sales of the European Conformity Marking (“CE Mark”) devices and accessories in Europe, Canada, Asia and Asia/Pacific.

2. Going Concern

The Company does not currently generate significant recurring revenue and will require additional capital during the thirdfourth quarter of 2017. As of September 30, 2017, the Company had an accumulated deficit of \$102,194,242 and cash and cash equivalents of \$40,226. For the nine months ended September 30, 2017 and 2016, the net cash used by operating activities was \$944,831 and \$2,708,973, respectively. The Company incurred a net loss of \$2,760,794 for the nine months ended September 30, 2017 and a net loss of \$6,439,040 for the year ended December 31, 2016. The operating losses and the Events of Default on the Notes payable, related parties (see Note 7) create an uncertainty about the Company’s ability to continue as a going concern.

The continuation of the Company’s business is dependent upon raising additional capital during the fourth quarter of 2017 to fund operations. Management’s plans are to obtain additional capital in 2017 through investments by strategic partners for market opportunities, which may include strategic partnerships or licensing arrangements, or raise capital through the conversion of outstanding warrants, the issuance of common or preferred stock, securities convertible into common stock, or secured or unsecured debt. These possibilities, to the extent available, may be on terms that result in significant dilution to the Company’s existing shareholders. Although no assurances can be given, management of the Company believes that potential additional issuances of equity or other potential financing transactions as discussed above should provide the necessary funding for the Company to continue as a going concern. If these efforts are unsuccessful, the Company may be forced to seek relief through a filing under the U.S. Bankruptcy Code. The consolidated financial statements do not include any adjustments that might be necessary if the Company is unable to continue as a going concern.

3. Summary of Significant Accounting Policies

Basis of Presentation



The accompanying unaudited condensed consolidated financial statements of the Company have been prepared in accordance with United States generally accepted accounting principles for interim financial information and with the instructions to Form 10-Q and Article 8-03 of Regulation S-X. Accordingly, these condensed consolidated financial statements do not include all the information and footnotes required by United States generally accepted accounting principles for complete financial statements. The financial information as of September 30, 2017 and for the three and nine months ended September 30, 2017 and 2016 is unaudited; however, in the opinion of management, all adjustments (consisting of normal recurring accruals) considered necessary for a fair presentation have been included. Operating results for the three and nine month periods ended September 30, 2017 are not necessarily indicative of the results that may be expected for any other interim period or for the year ending December 31, 2017.

SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS  
September 30, 2017

3. Summary of Significant Accounting Policies (continued)

The condensed consolidated balance sheet at December 31, 2016 has been derived from the audited consolidated financial statements at that date, but does not include all of the information and footnotes required by United States generally accepted accounting principles for complete financial statements.

Significant Accounting Policies

For further information and a summary of significant accounting policies, refer to the consolidated financial statements and footnotes thereto included in the Company's Annual Report on Form 10-K for the year ended December 31, 2016, filed with the SEC on March 31, 2017.

Recently Issued Accounting Standards

New accounting pronouncements are issued by the Financial Standards Board ("FASB") or other standards setting bodies that the Company adopts according to the various timetables the FASB specifies. The Company does not expect the adoption of recently issued accounting pronouncements to have a significant impact on the Company's results of operations, financial position or cash flow.

In May 2014, the FASB issued Accounting Standards Update No. 2014-09, Revenue from Contracts with Customers (ASU 2014-09), which supersedes nearly all existing revenue recognition guidance under U.S. GAAP. The core principle of ASU 2014-09 is to recognize revenues when promised goods or services are transferred to customers in an amount that reflects the consideration to which an entity expects to be entitled for those goods or services. ASU 2014-09 defines a five step process to achieve this core principle and, in doing so, more judgment and estimates may be required within the revenue recognition process than are required under existing U.S. GAAP. The standard is effective for annual periods beginning after December 15, 2017, and interim periods therein, using either of the following transition methods: (i) a full retrospective approach reflecting the application of the standard in each prior reporting period with the option to elect certain practical expedients, or (ii) a retrospective approach with the cumulative effect of initially adopting ASU 2014-09 recognized at the date of adoption (which includes additional footnote disclosures). In July 2015, the FASB confirmed a one-year delay in the effective date of ASU 2014-09, making the effective date for the Company the first quarter of fiscal 2018 instead of the current effective date, which was the first quarter of fiscal 2017. This one year deferral was issued by the FASB in ASU 2015-14, Revenue from Contracts with Customers (Topic 606.). The Company can elect to adopt the provisions of ASU 2014-09 for annual periods beginning after December 31, 2017, including interim periods within that reporting period. The FASB also agreed to allow entities to choose to adopt the standard as of the original effective date. The Company will adopt the standard effective January 1, 2018 and currently anticipates using the retrospective approach with the cumulative effect of initially adopting the new accounting standard at the date of adoption. The Company has completed a high-level impact assessment and has commenced an in-depth evaluation of the adoption impact, which involves the review of pre-existing customer contracts and arrangements. The Company is still in the process of evaluating the impact that the pending adoption of the new standard will have on these contracts and transactions. The new standard will require the Company to include expanded qualitative and quantitative disclosures relating to the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers, including specific judgments and estimates used by management.

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842), which requires lessees to recognize most leases on the balance sheet. The provisions of this guidance are effective for the annual periods beginning after December 15, 2018, and interim periods within those years, with early adoption permitted. Management is evaluating the requirements of this guidance and has not yet determined the impact of the pending adoption on the Company's financial position or results of operations.

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3. Summary of Significant Accounting Policies (continued)

In August 2016, the FASB issued ASU No. 2016-15, Statement of Cash Flows: Classification of Certain Cash Receipts and Cash Payments (Topic 230). This ASU will make eight targeted changes to how cash receipts and cash payments are presented and classified in the statement of cash flows. The ASU will be effective for fiscal years beginning after December 15, 2017. This standard will require adoption on a retrospective basis unless it is impracticable to apply, in which case it would be required to apply the amendments prospectively as of the earliest date practicable. Management is evaluating the requirements of this guidance and has not yet determined the impact of the adoption on the Company's financial position or results of operations.

In July 2017, the FASB issued ASU No. 2017-11, Earnings Per Share (Topic 260); Distinguishing Liabilities from Equity (Topic 480); Derivatives and Hedging (Topic 815): (Part I) Accounting for Certain Financial Instruments with Down Round Features, (Part II) Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception. Part I of this ASU addresses the complexity and reporting burden associated with the accounting for freestanding and embedded instruments with down round features as liabilities subject to fair value measurement. Part II of this ASU addresses the difficulty of navigating Topic 480. Part I of this ASU will be effective for fiscal years beginning after December 15, 2018. Early adoption is permitted for an entity in an interim or annual period. Management is evaluating the requirements of this guidance and has not yet determined the impact of the pending adoption on the Company's financial position or results of operations.

4. Property and equipment

Property and equipment consists of the following:

	September 30,	December 31,
	2017	2016
Machines and equipment	\$240,295	\$240,295
Office and computer equipment	156,860	156,860
Devices	82,204	82,204
Software	34,528	34,528
Furniture and fixtures	16,019	16,019
Other assets	2,259	2,259
Total	532,165	532,165
Accumulated depreciation	(472,770)	(455,227)
Net property and equipment	\$59,395	\$76,938

Depreciation expense was \$5,465 and \$1,554 for the three months ended September 30, 2017 and 2016, respectively and \$17,543 and \$3,227 for the nine months ended September 30, 2017 and 2016, respectively.

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5. Accrued expenses

Accrued expenses consist of the following:

	September 30, 2017	December 31, 2016
Accrued executive severance	\$100,000	\$100,000
Accrued board of director's fees	95,000	16,000
Accrued audit and tax preparation	83,095	100,000
Accrued outside services	53,912	31,533
Deferred rent	44,594	41,341
Accrued clinical expenses	23,650	13,650
Deferred revenue	21,060	18,810
Accrued travel and entertainment	20,000	-
Accrued legal professional fees	13,609	45,000
Accrued other	4,815	8,754
Total Accrued expenses	\$459,735	\$375,088

6. Advances from related parties

The Company has received cash advances from related parties and accredited investors to help fund the Company's operations. These advances are a part of a subscription agreement that the Company is offering to issue convertible promissory notes. As of September 30, 2017, the Company had received \$751,616 from related parties and accredited investors.

10% Convertible Promissory Notes

On March 27, 2017, the Company began offering subscriptions for 10% convertible promissory notes (the "10% Convertible Promissory Notes") to selected accredited investors. Up to \$2,500,000 aggregate principal amount of 10% Convertible Promissory Notes are being offered by the Company. The Company is currently working on completing this offering.

The 10% Convertible Promissory Notes have a six month term from the subscription date and the note holders can convert the 10% Convertible Promissory Notes at any time during the term to the number of shares of Common Stock equal to the amount obtained by dividing (i) the amount of unpaid principal and accrued interest on the note by (ii) \$0.11. The 10% Convertible Promissory Notes include a warrant agreement (the "Class N Warrant Agreement") to purchase Common Stock equal to the amount obtained by dividing the (i) sum of the principal amount, by (ii) \$0.11. The Class N Warrant Agreement expires March 17, 2019.

On November 3, 2017, the Company issued \$1,124,440 in 10% Convertible Promissory Notes to related parties and accredited investors and issued 10,222,180 Class N Warrants. The fair value of the Class N Warrants will be calculated and recorded in November 2017. On November 3, 2017, Premier Shockwave Inc., a company owned by Anthony Michael Stolarski, a member of the Company's board of directors and an existing shareholder of the Company, purchased \$330,000 of the 10% Convertible Promissory Notes and was issued 3,000,000 Class N Warrants.

The Company, the related parties and the accredited investors are executing and delivering the 10% Convertible Promissory Notes and the Class N Warrants in reliance upon the exemption from securities registration afforded by Section 4(a)(2) of the Securities Act and Rule 506 of Regulation D ("Regulation D").

Pursuant to the terms of a Registration Rights Agreement that the Company entered with the accredited investors in connection with the 10% Convertible Promissory Note, the Company is required to file a registration statement that covers the shares of Common Stock issuable upon conversion of the 10% Convertible Promissory Notes or upon exercise of the Class N Warrants. The failure on the part of the Company to satisfy certain deadlines described in the Registration Rights Agreement may subject the Company to payment of certain monetary penalties.

#### 7. Notes payable, related parties

The notes payable, related parties were issued in conjunction with the Company's purchase of the orthopedic division of HealthTronics, Inc. on August 1, 2005. The notes payable, related parties bore interest at 6% per annum. Quarterly interest through June 30, 2010 was accrued and added to the principal balance. Interest was paid quarterly in arrears beginning September 30, 2010. All remaining unpaid accrued interest and principal was due August 1, 2015.

On June 15, 2015, the Company and HealthTronics, Inc. entered into an amendment (the "Note Amendment") to amend certain provisions of the notes payable, related parties. The Note Amendment provided for the extension of the due date to January 31, 2017. In the period ending March 31, 2016, the Company reclassified the outstanding principal balance from non-current liabilities to current liabilities. In connection with the Note Amendment, the Company entered into a security agreement with HealthTronics, Inc. to provide a first security interest in the assets of the Company. The notes payable, related parties will bear interest at 8% per annum effective August 1, 2015 and during any period when an Event of Default occurs, the applicable interest rate shall increase by 2% per annum. Events of Default under the notes payable, related parties have occurred and are continuing on account of the failure of SANUWAVE, Inc., a Delaware corporation, a wholly owned subsidiary of the Company and the borrower under the notes payable, related parties, to make the required payments of interest which were due on December 31, 2016, March 31, 2017, June 30, 2017, and September 30, 2017 (collectively, the "Defaults"). As a result of the Defaults, the notes payable, related parties have been accruing interest at the rate of 10% per annum since January 12, 2017 and continue to accrue interest at such rate. The Company will be required to make mandatory prepayments of principal on the notes payable, related parties equal to 20% of the proceeds received by the Company through the issuance or sale of any equity securities in cash or through the licensing of the Company's patents or other intellectual property rights.

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7. Notes payable, related parties (continued)

On June 28, 2016, the Company and HealthTronics, Inc. entered into a second amendment (the “Second Amendment”) to amend certain provisions of the notes payable, related parties. The Second Amendment provides for the extension of the due date to January 31, 2018.

On August 3, 2017, the Company and HealthTronics, Inc. entered into a third amendment (the “Third Amendment”) to amend certain provisions of the notes payable, related parties. The Third Amendment provides for the extension of the due date to December 31, 2018 and revision of the mandatory prepayment provisions.

The notes payable, related parties had an aggregate net outstanding principal balance of \$5,183,310, net of \$189,433 debt discount, at September 30, 2017 and \$5,364,572, net of \$8,171 debt discount, at December 31, 2016, respectively.

In addition, the Company, in connection with the Note Amendment, issued to HealthTronics, Inc. on June 15, 2015, a total of 3,310,000 warrants (the “Class K Warrants”) to purchase shares of the Company’s common stock, \$0.001 par value (the “Common Stock”), at an exercise price of \$0.55 per share, subject to certain anti-dilution protection. Each Class K Warrant represents the right to purchase one share of Common Stock. The warrants vested upon issuance and expire after ten years. The fair value of these warrants on the date of issuance was \$0.0112 per warrant and \$36,989 was recorded as a debt discount to be amortized over the life of the amendment.

In addition, the Company, in connection with the Second Amendment, issued to HealthTronics, Inc. on June 28, 2016, an additional 1,890,000 Class K Warrants to purchase shares of the Company’s Common Stock at an exercise price of \$0.08 per share, subject to certain anti-dilution protection. The exercise price of the 3,310,000 Class K Warrants issued on June 15, 2015 was decreased to \$0.08 per share. The fair value of these warrants on the date of issuance was \$0.005 per warrant and \$9,214 was recorded as a debt discount to be amortized over the life of the amendment.

In addition, the Company, in connection with the Third Amendment, issued to HealthTronics, Inc. on August 3, 2017, an additional 2,000,000 Class K Warrants to purchase shares of the Company’s Common Stock at an exercise price of \$0.11 per share, subject to certain anti-dilution protection. The fair value of these warrants on the date of issuance was \$0.10 per warrant and \$200,000 was recorded as a debt discount to be amortized over the life of the amendment.

Accrued interest currently payable totaled \$535,125 and \$109,426 at September 30, 2017 and December 31, 2016, respectively. Interest expense on notes payable, related parties totaled \$160,979 and \$129,808 for the three months ended September 30, 2017 and 2016, respectively, and \$444,437 and \$390,746 for the nine months ended September 30, 2017 and 2016, respectively.

8. Short term loan

On December 21, 2016, the Company entered into a short term loan with Millennium Park Capital LLC (the “Holder”) in the principal amount of \$100,000. The principal amount shall be due and payable on the date that substantial money is obtained from the Company’s Korean distributor or date that money is obtained from a new distributor. This short term note is currently in default.



In addition, the Company will issue to the Holder 500,000 warrants to purchase shares of the Company's common stock, \$0.001 par value (the "Common Stock"), at an exercise price of \$0.17. Each warrant will represent the right to purchase one share of Common Stock. The warrants will vest upon issuance and have an expiration date of March 17, 2019. The fair value of the yet to be issued warrants on the date of issuance of the short term loan was \$0.1168 per warrant, using the Black-Scholes option pricing model, and \$58,400 was recorded as a debt discount to be amortized over the life of the short term loan.

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9. Income taxes

The Company files income tax returns in the United States federal jurisdiction and various state and foreign jurisdictions. The Company is no longer subject to United States federal and state and non-United States income tax examinations by tax authorities for years before 2014.

At September 30, 2017, the Company had federal net operating loss (“NOL”) carryforwards for tax years through the year ended December 31, 2016, that will begin to expire in 2025. The use of deferred tax assets, including federal NOLs, is limited to future taxable earnings. Based on the required analysis of future taxable income under the provisions of ASC 740, Income Taxes, the Company’s management believes that there is not sufficient evidence at September 30, 2017 indicating that the results of operations will generate sufficient taxable income to realize the net deferred tax asset in years beyond 2017. As a result, a valuation allowance was provided for the entire net deferred tax asset related to future years, including NOL carryforwards.

The Company’s ability to use its NOL carryforwards could be limited and subject to annual limitations. In connection with future offerings, the Company may realize a “more than 50% change in ownership” which could further limit its ability to use its NOL carryforwards accumulated to date to reduce future taxable income and tax liabilities. Additionally, because United States tax laws limit the time during which NOL carryforwards may be applied against future taxable income and tax liabilities, the Company may not be able to take advantage of all or portions of its NOL carryforwards for federal income tax purposes.

10. Equity transactions

Warrant Exercise

In April 2017, the Company issued 200,000 shares of common stock upon the exercise of 200,000 Class L Warrants to purchase shares of stock for \$0.08 per share under the terms of the Class L Warrant Public Offering agreement. The Company received proceeds of \$16,000.

On March 10, 2017, the Company issued 363,333 shares of common stock upon the exercise of 363,333 Class L Warrants to purchase shares of stock for \$0.08 per share under the terms of the Class L Warrant Public Offering agreement. The Company received proceeds of \$29,067.

On January 24, 2017, the Company issued 600,000 shares of common stock upon the exercise of 600,000 Class L Warrants to purchase shares of stock for \$0.08 per share under the terms of the Class L Warrant Public Offering agreement. The Company received proceeds of \$48,000.

On October 20, 2016, the Company issued 185,000 shares of common stock upon the exercise of 185,000 Class L Warrants to purchase shares of stock for \$0.08 per share under the terms of the Class L Warrant agreement.

On October 14, 2016, the Company issued 258,333 shares of common stock upon the exercise of 258,333 Class L Warrants to purchase shares of stock for \$0.08 per share under the terms of the Class L Warrant agreement.

On September 20, 2016, the Company issued 400,000 shares of common stock upon the exercise of 400,000 Class L Warrants to purchase shares of stock for \$0.08 per share under the terms of the Class L Warrant agreement.

Cashless Warrant Exercise

On June 22, 2017, the Company issued 84,514 shares of common stock to Arthur Motch III upon the cashless exercise of 125,246 Series A Warrants to purchase shares of stock for \$0.0334 per share based on a current market value of \$0.1027 per share as determined under the terms of the Series A Warrant agreement.

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10. Equity transactions (continued)

On March 13, 2017, the Company issued 297,035 shares of common stock to Lucas Hoppel upon the cashless exercise of 583,333 Class L Warrants to purchase shares of stock for \$0.08 per share based on a current market value of \$0.163 per share as determined under the terms of the Class L Warrant Private Offering agreement.

On February 6, 2017, the Company issued 80,804 shares of common stock to Intracoastal Capital, LLC upon the cashless exercise of 100,000 Series A Warrants to purchase shares of stock for \$0.0334 per share based on a current market value of \$0.174 per share as determined under the terms of the Series A Warrant agreement.

On February 2, 2017, the Company issued 158,240 shares of common stock to Intracoastal Capital, LLC upon the cashless exercise of 200,000 Series A Warrants to purchase shares of stock for \$0.0334 per share based on a current market value of \$0.17 per share as determined under the terms of the Series A Warrant agreement.

On January 26, 2017, the Company issued 79,998 shares of common stock to Intracoastal Capital, LLC upon the cashless exercise of 100,000 Series A Warrants to purchase shares of stock for \$0.0334 per share based on a current market value of \$0.1669 per share as determined under the terms of the Series A Warrant agreement.

On January 20, 2017, the Company issued 15,951 shares of common stock to Intracoastal Capital, LLC upon the cashless exercise of 20,000 Series A Warrants to purchase shares of stock for \$0.0334 per share based on a current market value of \$0.165 per share as determined under the terms of the Series A Warrant agreement.

On November 18, 2016, the Company issued 117,510 shares of common stock to DeMint Law, PLLC upon the cashless exercise of 143,400 Series A Warrants to purchase shares of stock for \$0.0334 per share based on a current market value of \$0.185 per share as determined under the terms of the Series A Warrant agreement.

On September 8, 2016, the Company issued 526,288 shares of common stock to Vigere Capital LP upon the cashless exercise of 971,667 Class M Warrants to purchase shares of stock for \$0.06 per share based on a current market value of \$0.11 per share as determined under the terms of the Class M Warrant agreement.

On August 23, 2016, the Company issued 343,434 shares of common stock to JDF Capital, Inc. upon the cashless exercise of 971,667 Class M Warrants to purchase shares of stock for \$0.06 per share based on a current market value of \$0.17 per share as determined under the terms of the Class M Warrant agreement.

On August 23, 2016, the Company issued 1,640,589 shares of common stock to JDF Capital, Inc. upon the cashless exercise of 4,641,667 Class J Warrants to purchase shares of stock for \$0.06 per share based on a current market value of \$0.17 per share as determined under the terms of the Class J Warrant agreement.

2016 Private Placement

On August 11, 2016, the Company began a private placement of securities (the "2016 Private Placement") with select accredited investors in reliance upon the exemption from securities registration afforded by Section 4(a)(2) of the Securities Act of 1933, as amended (the "Securities Act"), an Rule 506 of Regulation D ("Regulation D") as promulgated by the Securities and Exchange Commission under the Securities Act. The 2016 Private Placement offered Units (the "Units") at a purchase price of \$0.06 per Unit, with each Unit consisting of (i) one (1) share of Common Stock and, (ii)

one (1) detachable warrant (the “Warrants”) to purchase one (1) share of Common Stock at an exercise price of \$0.08 per share.

On August 25, 2016 and September 27, 2016 in conjunction with the 2016 Private Placement, the Company issued an aggregate of 22,766,667 and 5,533,334, respectively, shares of common stock for an aggregate purchase price of \$1,366,000 and \$332,000, respectively.

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10. Equity transactions (continued)

The Company, in connection with the 2016 Private Placement, issued to the investors an aggregate of 28,300,001 warrants (the “Class L Warrants”) to purchase shares of common stock at an exercise price of \$0.08 per share. Each Class L Warrant represents the right to purchase one share of Common Stock. The warrants vested upon issuance and expire on March 17, 2019.

Pursuant to the terms of a Registration Rights Agreement that the Company entered with the accredited investors in connection with the 2016 Private Placement, the Company is required to file a registration statement that covers the shares of Common Stock and the shares of common stock issuable upon exercise of the Warrants. The failure on the part of the Company to satisfy certain deadlines described in the Registration Rights Agreement may subject the Company to payment of certain monetary penalties.

Michael N. Nemelka, the brother of a member of the Company’s board of directors and an existing shareholder of the Company, was a purchaser in the 2016 Private Placement of \$75,000. A. Michael Stolarski, a member of the Company’s board of directors and an existing shareholder of the Company, was a purchaser in the 2016 Private Placement of \$60,000.

At the closing of the 2016 Private Placement, the Company paid West Park Capital, Inc., the placement agent for the equity offering, cash compensation of \$169,800 based on the gross proceeds of the private placement and 2,830,000 Class L Warrants.

Consulting Agreement

In August 2016, the Company entered into a consulting agreement for which the fee for the services performed was paid with Common Stock. The Company issued 435,392 shares of Common Stock to Vigere Capital LP under this agreement. The fair value of the Common Stock issued to the consultant, based upon the closing market price of the Common Stock at the date the Common Stock was issued, was recorded as a non-cash general and administrative expense in the amount of \$43,539 for the three months ended September 30, 2016.

Convertible Debenture and Restricted Stock

On July 29, 2016, the Company entered into a financing transaction for the sale of a Convertible Debenture (the “Debenture”) in the principal amount of \$200,000, with gross proceeds of \$175,000 to the Company after payment of a 10% original issue discount. The offering was conducted pursuant to the exemption from registration provided by Section 4(a)(2) of the Act and Rule 506 of Regulation D thereunder. The Company did not utilize any form of general solicitation or general advertising in connection with the offering. The Debenture was offered and sold to one accredited investor (the “Investor”).

The Investor is entitled to, at any time or from time to time, commencing on the date that is one hundred fifty one (151) days from the Issuance Date set forth above convert the Conversion Amount into Conversion Shares, at a conversion price for each share of Common Stock equal to either (i) if the Company is Deposit/Withdrawal at Custodian (“DWAC”) Operational at the time of conversion, Seventy percent (70%) of the lowest closing bid price (as reported by Bloomberg LP) of Common Stock for the twenty (20) Trading Days immediately preceding the date of the date of conversion of the Debentures, or (ii) if either the Company is not DWAC Operational or the Common

Stock is traded on the bottom tier OTC Pink (or, “pink sheets”) at the time of conversion, Sixty Five percent (65%) of the lowest closing bid price (as reported by Bloomberg LP) of the Common Stock for the twenty (20) Trading Days immediately preceding the date of conversion of the Debentures, subject in each case to equitable adjustments resulting from any stock splits, stock dividends, recapitalizations or similar events.

The Company recorded \$124,900 in interest expense for the beneficial conversion feature of the debenture in December 2016.

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10. Equity transactions (continued)

The Debenture is secured by the accounts receivable of the Company and, unless earlier redeemed, matures on the third anniversary date of issuance. The Company paid a commitment fee of \$2,500 and issued 835,000 shares of Restricted Stock. The fair value of the Restricted Stock on the date of issuance was \$0.06 and \$50,100 was recorded as interest expense in July 2016.

In September 2016, the Company repaid the Debenture in full which totaled \$210,000 with a Redemption Price of 105% of the sum of the Principal Amount per the agreement. The premium of \$10,000 paid upon redemption was recorded as interest expense in September 2016.

2016 Equity Offering

On March 11, 2016, April 6, 2016, and April 15, 2016 in conjunction with an equity offering of securities (the “2016 Equity Offering”) with select accredited investors, the Company issued an aggregate of 25,495,835, 3,083,334 and 1,437,501, respectively, shares of common stock for an aggregate purchase price of \$1,529,750, \$185,000, and \$86,200, respectively. The mandatory prepayment of principal on the notes payable, related parties equal to 20% of the proceeds received by the Company was waived by HealthTronics, Inc. for this 2016 Equity Offering.

The Company, in connection with the 2016 Equity Offering, issued to the investors an aggregate of 30,016,670 warrants (the “Class L Warrants”) to purchase shares of common stock at an exercise price of \$0.08 per share. Each Class L Warrant represents the right to purchase one share of Common Stock. The warrants vested upon issuance and expire on March 17, 2019.

Pursuant to the terms of a Registration Rights Agreement that the Company entered into with the investors in connection with the 2016 Equity Offering, the Company is required to file a registration statement that covers the shares of common stock and the shares of common stock issuable upon exercise of the Class L Warrants. The registration statement was declared effective by the SEC on February 16, 2016.

Michael N. Nemelka, the brother of a member of the Company’s board of directors and an existing shareholder of the Company, was a purchaser in the 2016 Equity Offering of \$100,000. A. Michael Stolarski, a member of the Company’s board of directors and an existing shareholder of the Company, was a purchaser in the 2016 Equity Offering of \$75,000.

At the closing of the 2016 Equity Offering, the Company paid Newport Coast Securities, Inc., the placement agent for the equity offering, cash compensation of \$180,095 based on the gross proceeds of the private placement and 3,001,667 Class L Warrants. In addition, the Company paid an escrow fee of \$4,000 and an attorney fee of \$20,000 from the gross proceeds.

Series A Warrant Conversion

On January 13, 2016, the Company entered into an Exchange Agreement (the “Exchange Agreement”) with certain beneficial owners (the “Investors”) of Series A warrants (the “Warrants”) to purchase shares of Common Stock, pursuant to which the Investors exchanged (the “Exchange”) all of their respective Warrants for either (i) shares of Common Stock or (ii) shares of Common Stock and shares of the Company’s Series B Convertible Preferred Stock, \$0.001 par



value (the “Preferred Stock”).

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10. Equity transactions (continued)

The Exchange was based on the following exchange ratio (the “Exchange Ratio”): 1 Series A Warrant = 0.4685 shares of capital stock. Investors who, as a result of the Exchange, owned in excess of 9.99% (the “Ownership Threshold”) of the outstanding Common Stock, received a mixture of Common Stock and shares of Preferred Stock. They received Common Stock up to the Ownership Threshold, and received shares of Preferred Stock beyond the Ownership Threshold (but the total shares of Common Stock and Preferred Stock issued to such holders was still based on the same Exchange Ratio). The relative rights, preferences, privileges and limitations of the Preferred Stock are as set forth in the Company’s Certificate of Designation of Series B Convertible Preferred Stock, which was filed with the Secretary of State of the State of Nevada on January 12, 2016 (the “Series B Certificate of Designation”).

In the Exchange, an aggregate number of 23,701,428 Warrants were exchanged for 7,447,954 shares of Common Stock and 293 shares of Preferred Stock. Pursuant to the Series B Certificate of Designation, each of the Preferred Stock shares is convertible into shares of Common Stock at an initial rate of 1 Preferred Stock share for 12,500 Common Stock shares, which conversion rate is subject to further adjustment as set forth in the Series B Certificate of Designation. Pursuant to the terms of the Series B Certificate of Designation, the holders of the Preferred Stock shares will generally be entitled to that number of votes as is equal to the number of shares of Common Stock into which the Preferred Stock may be converted as of the record date of such vote or consent, subject to the Beneficial Ownership Limitation.

In connection with entering into the Exchange Agreement, the Company also entered into a Registration Rights Agreement, dated January 13, 2016, with the Investors. The Registration Rights Agreement requires that the Company file with the SEC a registration statement to register for resale the shares of the Common Stock issued in connection with the Exchange and the Common Stock issuable upon conversion of the Preferred Stock shares (the “Preferred Stock Conversion Shares”). The registration statement was declared effective by the SEC on February 16, 2016.

11. Preferred Stock

The Company’s Articles of Incorporation authorize the issuance of up to 5,000,000 shares of “blank check” preferred stock with designations, rights and preferences as may be determined from time to time by the board of directors. On January 12, 2016, the Company filed a Certificate of Designation of Preferences, Rights and Limitations for Series B Convertible Preferred Stock of the Company (the “Certificate of Designation”) with the Nevada Secretary of State. The Certificate of Designation amends the Company’s Articles of Incorporation to designate 293 shares of preferred stock, par value \$0.001 per share, as Series B Convertible Preferred Stock. The Series B Convertible Preferred Stock has a stated value of \$1,000 per share. On January 13, 2016, in connection with the Series A Warrant Conversion, the Company issued 293 shares of Series B Convertible Preferred Stock (for a more detailed discussion regarding the Series A Warrant Conversion, see Note 10).

Under the Certificate of Designation, holders of Series B Convertible Preferred Stock are entitled to receive dividends equal (on an as-if-converted-to-common-stock basis) to and in the same form as dividends (other than dividends in the form of common stock) actually paid on shares of the common stock when, as and if such dividends are paid. Such holders will participate on an equal basis per-share with holders of common stock in any distribution upon winding up, dissolution, or liquidation of the Company. Holders of Series B Convertible Preferred Stock are entitled to convert each share of Series A Convertible Preferred Stock into 2,000 shares of common stock, provided that after giving effect to such conversion, such holder, together with its affiliates, shall not beneficially own in excess of 9.99% of the

number of shares of common stock outstanding (the “Beneficial Ownership Limitation”). Holders of the Series B Convertible Preferred Stock are entitled to vote on all matters affecting the holders of the common stock on an “as converted” basis, provided that such holder shall only vote such shares of Series B Convertible Preferred Stock eligible for conversion without exceeding the Beneficial Ownership Limitation.

On April 29, 2016, the holders of Series B Convertible Preferred Stock converted the outstanding 293 shares of Series B Convertible Preferred Stock into 3,657,278 shares of common stock. As of April 29, 2016, there were no outstanding shares of Series B Convertible Preferred Stock.

SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
 NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS  
 September 30, 2017

11. Preferred Stock (continued)

On March 14, 2014, the Company filed a Certificate of Designation of Preferences, Rights and Limitations for Series A Convertible Preferred Stock of the Company (the "Certificate of Designation") with the Nevada Secretary of State. The Certificate of Designation amends the Company's Articles of Incorporation to designate 6,175 shares of preferred stock, par value \$0.001 per share, as Series A Convertible Preferred Stock. The Series A Convertible Preferred Stock has a stated value of \$1,000 per share. On March 17, 2014, in connection with a Private Placement, the Company issued 6,175 shares of Series A Convertible Preferred Stock. As of January 6, 2015, there were no outstanding shares of Series A Convertible Preferred Stock.

12. Warrants

A summary of the warrant activity as of September 30, 2017 and December 31, 2016, and the changes during the nine months ended September 30, 2017, is presented as follows:

	Outstanding						Outstanding
	as of						as of
	December 31,						September 30,
Warrant class	2016	Issued	Exercised	Converted	Expired	2017	
Class F Warrants	300,000	-	-	-	-	300,000	
Class G Warrants	1,503,409	-	-	-	-	1,503,409	
Class H Warrants	1,988,095	-	-	-	-	1,988,095	
Class I Warrants	1,043,646	-	-	-	-	1,043,646	
Class K Warrants	5,200,000	2,000,000	-	-	-	7,200,000	
Class L Warrants	65,945,005	-	(1,746,666)	-	-	64,198,339	
Series A Warrants	2,106,594	-	(545,246)	-	-	1,561,348	
	78,086,749	2,000,000	(2,291,912)	-	-	77,794,837	

A summary of the warrant exercise price per share and expiration date is presented as follows:

	Exercise price/share	Expiration date
Class F Warrants	\$ 0.35	February 2018

Class G Warrants	\$ 0.80	July 2018
Class H Warrants	\$ 0.80	July 2018
Class I Warrants	\$ 0.85	September 2018
Class K Warrants	\$ 0.08	June 2025
Class K Warrants	\$ 0.11	August 2027
Class L Warrants	\$ 0.08	March 2019
Series A Warrants	\$ 0.03	March 2019

The exercise price and the number of shares covered by the warrants will be adjusted if the Company has a stock split, if there is a recapitalization of the Company's common stock, or if the Company consolidates with or merges into another company.

SANUWAVE HEALTH, INC. AND SUBSIDIARIES

NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

September 30, 2017

12. Warrants (continued)

The exercise price of the Class K Warrants and the Series A Warrants are subject to a “down-round” anti-dilution adjustment if the Company issues or is deemed to have issued certain securities at a price lower than the then applicable exercise price of the warrants. The exercise price of the Series A Warrants was adjusted to \$0.0334 due to the 2016 Equity Offering (see Note 10). The Class K Warrants may be exercised on a physical settlement or on a cashless basis. The Series A Warrants may be exercised on a physical settlement basis if a registration statement underlying the warrants is effective. If a registration statement is not effective (or the prospectus contained therein is not available for use) for the resale by the holder of the Series A Warrants, then the holder may exercise the warrants on a cashless basis.

In February 2013, the Company issued 2,000,000 warrants to a consultant to purchase the Company’s common stock at \$0.35 per share (the “Class F Warrants”). The five year Class F Warrants vest 300,000 on the date of grant and 1,700,000 upon the completion of a \$5,000,000, or greater, capital raise on or prior to June 8, 2013. A capital raise was not completed for the requisite amount and the 1,700,000 Class F Warrants expired by their terms. The Company recorded the underlying cost of the 300,000 Class F Warrants as a cost of the Public Offering.

In June 2015, the Company, in connection with the Note Amendment (see Note 7), issued to HealthTronics, Inc. an aggregate total of 3,310,000 Class K Warrants to purchase shares of the Company’s common stock, \$0.001 par value, at an exercise price of \$0.55 per share, subject to certain anti-dilution protection. Each Class K Warrant represents the right to purchase one share of Common Stock. The warrants vested upon issuance and expire after ten years.

In June 2016, the Company, in connection with the Second Amendment (see Note 7), issued to HealthTronics, Inc., an additional 1,890,000 Class K Warrants to purchase shares of the Company’s Common Stock at an exercise price of \$0.08 per share, subject to certain anti-dilution protection. The exercise price of the 3,310,000 Class K Warrants issued on June 15, 2015 was decreased to \$0.08 per share. The warrants vested upon issuance and expire after ten years.

In August 2017, the Company, in connection with the Third Amendment (see Note 7), issued to HealthTronics, Inc., an additional 2,000,000 Class K Warrants to purchase shares of the Company’s Common Stock at an exercise price of \$0.11 per share, subject to certain anti-dilution protection. The warrants vested upon issuance and expire after ten years.

The Class K Warrants, the Series A Warrants and the Series B Warrants are derivative financial instruments. The estimated fair value of the Class K Warrants at the date of grant was \$36,989 and recorded as debt discount, which is accreted to interest expense through the maturity date of the related notes payable, related parties. The estimated fair values of the Series A Warrants and the Series B Warrants at the date of grant were \$557,733 for the warrants issued in conjunction with the 2014 Private Placement and \$47,974 for the warrants issued in conjunction with the 18% Convertible Promissory Notes. The fair value of the Series A Warrants and Series B Warrants were recorded as equity issuance costs in 2014, a reduction of additional paid-in capital. The Series B Warrants expired unexercised in March 2015.

The estimated fair values were determined using a binomial option pricing model based on various assumptions. The Company’s derivative liabilities are adjusted to reflect estimated fair value at each period end, with any decrease or increase in the estimated fair value being recorded in other income or expense accordingly, as adjustments to the fair

value of derivative liabilities. Various factors are considered in the pricing models the Company uses to value the warrants, including the Company's current common stock price, the remaining life of the warrants, the volatility of the Company's common stock price, and the risk-free interest rate. In addition, as of the valuation dates, management assessed the probabilities of future financing and other re-pricing events in the binominal valuation models.

SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
 NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS  
 September 30, 2017

12. Warrants (continued)

A summary of the changes in the warrant liability as of September 30, 2017 and December 31, 2016, and the changes during the three and nine months ended September 30, 2017, is presented as follows:

	Class K	Series A	
	Warrants	Warrants	Total
Warrant liability as of December 31, 2016	\$884,000	\$358,120	\$1,242,120
Issued	-	-	-
Warrant redemption	-	(57,372)	(57,372)
Change in fair value	(208,000)	(115,223)	(323,223)
Warrant liability as of March 31, 2017	\$676,000	\$185,525	\$861,525
Issued	-	-	-
Warrant redemption	-	(9,594)	(9,594)
Change in fair value	-	(35,410)	(35,410)
Warrant liability as of June 30, 2017	\$676,000	\$140,521	\$816,521
Issued	200,000	-	200,000
Warrant redemption	-	-	-
Change in fair value	(52,000)	93,681	41,681
Warrant liability as of September 30, 2017	\$824,000	\$234,202	\$1,058,202

13. Commitments and contingencies

Operating Leases

Rent expense for the three months ended September 30, 2017 and 2016, was \$33,572 and \$47,108, respectively and for the nine months ended September 30, 2017 and 2016 was \$99,800 and \$130,083, respectively. Minimum future lease payments under the operating lease consist of the following:

Year ending December 31, Amount

Remainder of 2017	\$33,507
2018	135,704
2019	139,775



2020	143,969
2021	148,288
Total	\$601,243

Litigation

The Company is involved in various legal matters that have arisen in the ordinary course of business. While the ultimate outcome of these matters is not presently determinable, it is the opinion of management that the resolution will not have a material adverse effect on the financial position or results of operations of the Company.

## SANUWAVE HEALTH, INC. AND SUBSIDIARIES

## NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

September 30, 2017

## 14. Stock-based compensation

On November 1, 2010, the Company approved the Amended and Restated 2006 Stock Incentive Plan of SANUWAVE Health, Inc. effective as of January 1, 2010 (the "Stock Incentive Plan"). The Stock Incentive Plan permits grants of awards to selected employees, directors and advisors of the Company in the form of restricted stock or options to purchase shares of common stock. Options granted may include non-statutory options as well as qualified incentive stock options. The Stock Incentive Plan is administered by the board of directors of the Company. The Stock Incentive Plan gives broad powers to the board of directors of the Company to administer and interpret the particular form and conditions of each option. The stock options granted under the Stock Incentive Plan are non-statutory options which generally vest over a period of up to three years and have a ten year term. The options are granted at an exercise price determined by the board of directors of the Company to be the fair market value of the common stock on the date of the grant. At September 30, 2017 and December 31, 2016, the Stock Incentive Plan reserved 22,500,000 shares of common stock for grant.

On June 15, 2017, the Company granted to the active employees, members of the board of directors and members of the Company's Medical Advisory Board options to purchase 5,550,000 shares each of the Company's common stock at an exercise price of \$0.11 per share and vested upon issuance. Using the Black-Scholes option pricing model, management has determined that the options had a fair value per share of \$0.0869 resulting in compensation expense of \$482,295. Compensation cost was recognized upon grant.

On November 9, 2016, the Company granted to the active employees, members of the board of directors and two members of the Company's Medical Advisory Board options to purchase 2,830,000 shares each of the Company's common stock at an exercise price of \$0.18 per share and vested upon issuance. Using the Black-Scholes option pricing model, management has determined that the options had a fair value per share of \$0.1524 resulting in compensation expense of \$431,292. Compensation cost was recognized upon grant.

On June 16, 2016, the Company granted to the active employees, members of the board of directors and two members of the Company's Medical Advisory Board options to purchase 3,300,000 shares each of the Company's common stock at an exercise price of \$0.04 per share and vested upon issuance. Using the Black-Scholes option pricing model, management has determined that the options had a fair value per share of \$0.0335 resulting in compensation expense of \$110,550. Compensation cost was recognized upon grant.

The fair value of each option award is estimated on the date of grant using the Black-Scholes option pricing model using the following weighted average assumptions for the nine months ended September 30, 2017 and the year ended December 31, 2016:

	2017	2016
Weighted average expected life in years	5.0	5.0
Weighted average risk free interest rate	1.76%	1.28%
Weighted average volatility	120.0%	133.54%
Forfeiture rate	0.0%	0.0%
Expected dividend yield	0.0%	0.0%

The Company recognized as compensation cost for all outstanding stock options granted to employees, directors and advisors, \$0 for each of the three months ended September 30, 2017 and 2016, and \$482,295 and \$116,550 for the nine months ended September 30, 2017 and 2016, respectively.

SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS  
September 30, 2017

14. Stock-based compensation (continued)

A summary of option activity as of September 30, 2017 and December 31, 2016, and the changes during the three and nine months ended September 30, 2017, is presented as follows:

		Weighted Average Exercise Price
	Options	per share
Outstanding as of December 31, 2016	16,203,385	\$0.38
Granted	-	\$-
Exercised	-	\$-
Cancelled	-	\$-
Forfeited or expired	-	\$-
Outstanding as of March 31, 2017	16,203,385	\$0.38
Granted	5,550,000	\$0.11
Exercised	-	\$-
Cancelled	-	\$-
Forfeited or expired	(160,000)	\$0.22
Outstanding as of June 30, 2017	21,593,385	\$0.31
Granted	-	\$-
Exercised	-	\$-
Cancelled	-	\$-
Forfeited or expired	-	\$-
Outstanding as of September 30, 2017	21,593,385	\$0.31
Exercisable	21,593,385	\$0.31

The range of exercise prices for options was \$0.04 to \$2.00 for options outstanding at September 30, 2017 and December 31, 2016, respectively. The aggregate intrinsic value for all vested and exercisable options was \$1,027,516 and \$702,500 at September 30, 2017 and December 31, 2016, respectively.

The weighted average remaining contractual term for outstanding exercisable stock options was 7.62 and 5.88 years as of September 30, 2017 and December 31, 2016, respectively.

15. Earnings (loss) per share

The Company calculates net income (loss) per share in accordance with ASC 260, Earnings Per Share. Under the provisions of ASC 260, basic net income (loss) per share is computed by dividing the net income (loss) attributable to common stockholders for the period by the weighted average number of shares of common stock outstanding for the period. Diluted net income (loss) per share is computed by dividing the net income (loss) attributable to common stockholders by the weighted average number of shares of common stock and dilutive common stock equivalents then outstanding. To the extent that securities are “anti-dilutive,” they are excluded from the calculation of diluted net income (loss) per share.

As a result of the net loss for the three and nine months ended September 30, 2017 and 2016, respectively, all potentially dilutive shares were anti-dilutive and therefore excluded from the computation of diluted net loss per share. The anti-dilutive equity securities totaled 99,388,222 shares and 92,046,867 shares at September 30, 2017 and 2016, respectively.

SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS  
September 30, 2017

16. Subsequent events

Brazil Joint Venture

On September 27, 2017, we entered into a binding term sheet with MundiMed Distribuidora Hospitalar LTDA (“MundiMed”), effective as of September 25, 2017, for a joint venture for the manufacture, sale and distribution of our dermaPACE device. Under the binding term sheet, MundiMed will pay the Company an initial partnership fee, with monthly partnership fees payable thereafter over the following eighteen months. Profits from the joint venture are distributed as follows: 45% to the Company, 45% to MundiMed and 5% each to LHS Latina Health Solutions Gestão Empresarial Ltda. and Universus Global Advisors LLC, who acted as advisors in the transaction. The initial partnership fee was received on October 6, 2017.

Cashless Warrant Exercise

On October 24, 2017, the Company issued 150,083 shares of common stock upon the cashless exercise of 300,166 Class L Warrants to purchase shares of stock for \$0.08 per share based on a current market value of \$0.16 per share as determined under the terms of the Class L Warrant Private Offering agreement.



Report of Independent Registered Public Accounting Firm

Board of Directors and Stockholders  
SANUWAVE Health, Inc. and Subsidiaries  
Suwanee, Georgia

We have audited the accompanying consolidated balance sheet of SANUWAVE Health, Inc. and Subsidiaries as of December 31, 2016 and the related consolidated statements of comprehensive loss, stockholders' deficit, and cash flows for the year then ended. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audit.

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

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of SANUWAVE Health, Inc. and Subsidiaries at December 31, 2016, and the results of their operations and their cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note (1) to the consolidated financial statements, the Company has suffered recurring losses from operations and is dependent upon future issuances of equity or other financing to fund ongoing operations, both of which raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are described in Note (1). The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ Cherry Bekaert LLP

Atlanta, Georgia  
March 31, 2017





Report of Independent Registered Public Accounting Firm

Board of Directors and Stockholders  
SANUWAVE Health, Inc. and Subsidiaries  
Suwanee, Georgia

We have audited the accompanying consolidated balance sheet of SANUWAVE Health, Inc. and Subsidiaries as of December 31, 2015 and the related consolidated statements of comprehensive loss, stockholders' deficit, and cash flows for the year then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

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

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of SANUWAVE Health, Inc. and Subsidiaries at December 31, 2015, and the results of their operations and their cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note (1) to the consolidated financial statements, the Company has suffered recurring losses from operations and is dependent upon future issuances of equity or other financing to fund ongoing operations, both of which raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are described in Note (1). The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ BDO USA, LLP

Atlanta, Georgia  
March 30, 2016



SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
CONSOLIDATED BALANCE SHEETS  
December 31, 2016 and 2015

	2016	2015
<b>ASSETS</b>		
<b>CURRENT ASSETS</b>		
Cash and cash equivalents	\$133,571	\$152,930
Accounts receivable, net of allowance for doubtful accounts of \$35,196 in 2016 and \$8,963 in 2015	460,799	74,454
Inventory (Note 3)	231,953	284,908
Prepaid expenses	87,823	123,988
<b>TOTAL CURRENT ASSETS</b>	<b>914,146</b>	<b>636,280</b>
<b>PROPERTY AND EQUIPMENT</b> , at cost, less accumulated depreciation (Note 4)	<b>76,938</b>	<b>4,228</b>
<b>OTHER ASSETS</b>	<b>13,786</b>	<b>11,097</b>
<b>INTANGIBLE ASSETS</b> , at cost, less accumulated amortization (Note 5)	<b>-</b>	<b>306,756</b>
<b>TOTAL ASSETS</b>	<b>\$1,004,870</b>	<b>\$958,361</b>
<b>LIABILITIES</b>		
<b>CURRENT LIABILITIES</b>		
Accounts payable	\$712,964	\$509,266
Accrued expenses (Note 6)	375,088	359,374
Accrued employee compensation	64,860	241,542
Interest payable, related parties (Note 7)	109,426	239,803
Short term loan, net (Note 8)	47,440	-
Warrant liability (Note 12)	1,242,120	138,100
Notes payable, related parties, net (Note 7)	5,364,572	-
<b>TOTAL CURRENT LIABILITIES</b>	<b>7,916,470</b>	<b>1,488,085</b>
<b>NON-CURRENT LIABILITIES</b>		
Notes payable, related parties, net (Note 7)	-	5,348,112
<b>TOTAL LIABILITIES</b>	<b>7,916,470</b>	<b>6,836,197</b>
<b>COMMITMENTS AND CONTINGENCIES (Note 13)</b>		
<b>STOCKHOLDERS' DEFICIT</b>		
<b>PREFERRED STOCK, SERIES A CONVERTIBLE</b> , par value \$0.001, 6,175 authorized; 6,175 shares issued and 0 shares outstanding in 2016 and 2015 (Note 11)	-	-

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PREFERRED STOCK, SERIES B CONVERTIBLE, par value \$0.001, 293 authorized; 293 shares issued and 0 shares outstanding in 2016 and 2015, respectively (Note 11)	-	-
PREFERRED STOCK - UNDESIGNATED, par value \$0.001, 4,993,532 shares authorized; no shares issued and outstanding (Note 11)	-	-
COMMON STOCK, par value \$0.001, 350,000,000 shares authorized; 137,219,968 and 63,056,519 issued and outstanding in 2016 and 2015, respectively (Note 10)	137,220	63,057
ADDITIONAL PAID-IN CAPITAL	92,436,697	87,086,677
ACCUMULATED DEFICIT	(99,433,448)	(92,994,408)
ACCUMULATED OTHER COMPREHENSIVE LOSS	(52,069)	(33,162)
TOTAL STOCKHOLDERS' DEFICIT	(6,911,600)	(5,877,836)
TOTAL LIABILITIES AND STOCKHOLDERS' DEFICIT	\$1,004,870	\$958,361

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

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SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS  
December 31, 2016 and 2015

	2016	2015
REVENUES	\$1,376,063	\$965,501
COST OF REVENUES (exclusive of depreciation and amortization shown below)	565,129	284,962
OPERATING EXPENSES		
Research and development	1,128,640	2,172,819
General and administrative	2,673,773	2,735,129
Depreciation	19,858	3,612
Amortization	306,756	306,757
Gain of sale of assets, property and equipment	(1,594)	(100,000)
TOTAL OPERATING EXPENSES	4,127,433	5,118,317
OPERATING LOSS	(3,316,499)	(4,437,778)
OTHER INCOME (EXPENSE)		
Gain (loss) on warrant valuation adjustment and conversion	(2,223,718)	58,515
Interest expense, net	(854,980)	(399,832)

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Amortization of debt discount	(31,514)	(12,358)
Loss on foreign currency exchange	(12,329)	(18,832)
TOTAL OTHER INCOME (EXPENSE), NET	(3,122,541)	(372,507)
NET LOSS	(6,439,040)	(4,810,285)
OTHER COMPREHENSIVE LOSS		
Foreign currency translation adjustments	(18,907)	(20,685)
TOTAL COMPREHENSIVE LOSS	\$(6,457,947)	\$(4,830,970)
LOSS PER SHARE:		
Net loss - basic and diluted	\$(0.06)	\$(0.08)
Weighted average shares outstanding - basic and diluted	107,619,869	63,025,202

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

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SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF STOCKHOLDER' DEFICIT  
December 31, 2016 and 2015

	Preferred Stock	Common Stock				Accumulated	Other	
	Number of	Number of						
	Shares	Shares						
	Issued and	Issued and	Additional	Accumulated	Comprehensive			
	Outstanding	Outstanding	Paid-	Deficit	Income (Loss)	Total		
	Par Value	Par Value	in Capital					
Balances as of								
December 31, 2014	1,165	\$1	60,726,519	\$60,727	\$86,584,472	\$(88,184,123)	\$(12,477)	\$(1,551,400)
Net loss	-	-	-	-	-	(4,810,285)	-	(4,810,285)
Preferred stock	(1,165)	(1)	2,330,000	2,330	(2,329)	-	-	-

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conversion to common stock								
Stock-based compensation - options	-	-	-	-	504,534	-	-	504,534
Foreign currency translation adjustment	-	-	-	-	-	-	(20,685)	(20,685)
Balances as of December 31, 2015	-	-	63,056,519	63,057	87,086,677	(92,994,408)	(33,162)	(5,877,836)
Net loss	-	-	-	-	-	(6,439,040)	-	(6,439,040)
Series A Warrant conversion to stock	293	-	7,447,954	7,447	880,971	-	-	888,418
Equity Offering	-	-	30,016,670	30,017	1,566,838	-	-	1,596,855
Preferred stock conversion	(293)	-	3,657,278	3,657	(3,657)	-	-	-
Peak One - Convertible Debenture	-	-	835,000	835	49,265	-	-	50,100
PIPE Offering	-	-	28,300,001	28,300	1,499,900	-	-	1,528,200
Warrant exercise	-	-	843,333	843	66,623	-	-	67,466
Cashless warrant conversion	-	-	2,627,821	2,628	263,093	-	-	265,721
Shares issued for services	-	-	435,392	436	43,104	-	-	43,540
Stock-based compensation - options	-	-	-	-	547,842	-	-	547,842
Beneficial conversion feature on debt	-	-	-	-	191,231	-	-	191,231
Warrants issued for services	-	-	-	-	186,410	-	-	186,410
Warrants issued with short term loan	-	-	-	-	58,400	-	-	58,400
Foreign currency translation	-	-	-	-	-	-	(18,907)	(18,907)

adjustment

Balances as of							
December 31, -	\$-	137,219,968	\$137,220	\$92,436,697	\$(99,433,448)	\$(52,069)	\$(6,911,600)
2016							

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

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SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF CASH FLOWS  
December 31, 2016 and 2015

	2016	2015
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>		
Net loss	\$(6,439,040)	\$(4,810,285)
Adjustments to reconcile loss from continuing operations to net cash used by operating activities		
Amortization	306,756	306,757
Depreciation	19,858	3,612
Change in allowance for doubtful accounts	26,233	(6,055)
Stock-based compensation - employees, directors and advisors	547,842	504,534
Warrants issued for services	186,410	-
(Gain) loss on warrant valuation adjustment	2,223,718	(58,515)
Amortization of debt issuance costs	225,786	-
Loss on conversion option of promissory notes payable	75,422	-
Stock issued with convertible debenture	50,100	-
Stock issued for consulting services	43,540	-
Amortization of debt discount	31,514	12,358
Gain on sale of asset, property and equipment	(1,594)	(100,000)
Changes in assets - (increase)/decrease		
Accounts receivable - trade	(412,578)	18,005
Inventory	(29,249)	(13,037)
Prepaid expenses	36,165	4,562
Other	(2,689)	9
Changes in liabilities - increase/(decrease)		
Accounts payable	203,698	277,426
Accrued expenses	15,714	(10,082)
Accrued employee compensation	(176,682)	239,316
Interest payable, related parties	(130,377)	157,939
<b>NET CASH USED BY OPERATING ACTIVITIES</b>	<b>(3,199,453)</b>	<b>(3,473,456)</b>



<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Proceeds from sale of property and equipment	1,594	100,000
Purchases of property and equipment	(10,364)	-
<b>NET CASH PROVIDED (USED) BY INVESTING ACTIVITIES</b>	<b>(8,770)</b>	<b>100,000</b>
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>		
Proceeds from 2016 Public Offering, net	1,596,855	-
Proceeds from 2016 Private Offering, net	1,528,200	-
Proceeds from convertible promissory notes, net	106,000	-
Proceeds from convertible debenture, net	175,000	-
Proceeds from short term loan	100,000	-
Proceeds from warrant exercise	67,466	-
Payment of convertible promissory notes	(155,750)	-
Payment of convertible debenture	(210,000)	-
<b>NET CASH PROVIDED BY FINANCING ACTIVITIES</b>	<b>3,207,771</b>	<b>-</b>
<b>EFFECT OF EXCHANGE RATES ON CASH</b>	<b>(18,907)</b>	<b>(20,685)</b>
<b>NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS</b>	<b>(19,359)</b>	<b>(3,394,141)</b>
<b>CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD</b>	<b>152,930</b>	<b>3,547,071</b>
<b>CASH AND CASH EQUIVALENTS, END OF PERIOD</b>	<b>\$133,571</b>	<b>\$152,930</b>
<b>SUPPLEMENTAL INFORMATION</b>		
Cash paid for interest, related parties	\$630,549	\$242,904
<b>NONCASH INVESTING AND FINANCING ACTIVITIES</b>		
Stock issued with convertible debenture	\$50,100	\$-
Stock issued for services	\$43,540	\$-
Loss on warrant conversion to stock	\$888,418	\$-
Beneficial conversion feature on convertible promissory notes	66,331	-
Beneficial conversion feature on convertible debenture	124,900	-
Beneficial conversion feature on convertible debt	\$191,231	\$-
Warrants issued for services	\$186,410	\$-
Warrants issued for short tem loan	\$58,400	\$-

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



SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
Years Ended December 31, 2016 and 2015

1. Going Concern

As shown in the accompanying consolidated financial statements, SANUWAVE Health, Inc. and Subsidiaries (the “Company”) incurred a net loss of \$6,439,040 and \$4,810,285 during the years ended December 31, 2016 and 2015, respectively, and the net cash used by operating activities was \$3,199,453 and \$3,473,456, respectively. As of December 31, 2016, the Company had a net working capital deficit of \$7,002,324, total stockholders’ deficit of \$6,911,600 and cash and cash equivalents of \$133,571. These factors create an uncertainty about the Company’s ability to continue as a going concern.

The Company does not currently generate significant recurring revenue and will require additional capital during or before the second quarter of 2017. Although no assurances can be given, management of the Company believes that existing capital resources should enable the Company to fund operations into the second quarter of 2017.

The continuation of the Company’s business is dependent upon raising additional capital during or before the second quarter of 2017 to fund operations. Management’s plans are to obtain additional capital in 2017 through investments by strategic partners for market opportunities, which may include strategic partnerships or licensing arrangements, or raise capital through the conversion of outstanding warrants, the issuance of common or preferred stock, securities convertible into common stock, or secured or unsecured debt. These possibilities, to the extent available, may be on terms that result in significant dilution to the Company’s existing shareholders. Although no assurances can be given, management of the Company believes that potential additional issuances of equity or other potential financing transactions as discussed above should provide the necessary funding for the Company to continue as a going concern. If these efforts are unsuccessful, the Company may be forced to seek relief through a filing under the U.S. Bankruptcy Code. The consolidated financial statements do not include any adjustments that might be necessary if the Company is unable to continue as a going concern.

2. Summary of significant accounting policies

Description of the business – SANUWAVE Health, Inc. and subsidiaries (the “Company”) is an acoustic pressure shock wave technology company using a patented system of noninvasive, high-energy, acoustic pressure shock waves for indications such as regenerative medicine and other applications. The Company’s initial focus is regenerative medicine – utilizing noninvasive (extracorporeal), acoustic pressure shock waves to produce a biological response resulting in the body healing itself through the repair and regeneration of skin, musculoskeletal tissue, and vascular structures. The Company’s lead regenerative product in the United States is the dermaPACE® device, used for treating diabetic foot ulcers, which was subject to two double-blinded, randomized Phase II clinical studies. The results of these clinical studies were submitted to the FDA in late July 2016 for possible FDA approval in 2017. Our revenues are generated from sales of the European Conformity Marking (CE Mark) devices and accessories in Europe, Canada, Asia and Asia/Pacific as we do not currently have any approved devices or accessories to sell in the United States.

The significant accounting policies followed by the Company are summarized below:

Foreign currency translation - The functional currencies of the Company’s foreign operations are the local currencies. The financial statements of the Company’s foreign subsidiary have been translated into United States dollars in accordance with ASC 830, Foreign Currency Matters, Foreign Currency Translation. All balance sheet accounts have been translated using the exchange rates in effect at the balance sheet date. Income statement amounts have been

translated using the average exchange rate for the year. Translation adjustments are reported in other comprehensive income (loss) in the consolidated statements of comprehensive loss and as cumulative translation adjustments in accumulated other comprehensive income (loss) in the consolidated statements of stockholders' deficit.



SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
Years Ended December 31, 2016 and 2015

2. Summary of significant accounting policies (continued)

**Principles of consolidation** - The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All significant intercompany accounts and transactions have been eliminated.

**Estimates** – These consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States of America. Because a precise determination of assets and liabilities, and correspondingly revenues and expenses, depend on future events, the preparation of consolidated financial statements for any period necessarily involves the use of estimates and assumptions. Actual amounts may differ from these estimates. These consolidated financial statements have, in management’s opinion, been properly prepared within reasonable limits of materiality and within the framework of the accounting policies summarized herein. Significant estimates include the recording of allowances for doubtful accounts, estimated reserves for inventory, valuation of derivatives, accrued expenses, the determination of the valuation allowances for deferred taxes, estimated fair value of stock-based compensation, estimated fair value of warrant liabilities and the estimated fair value of intangible assets.

**Cash and cash equivalents** - For purposes of the consolidated financial statements, liquid instruments with an original maturity of 90 days or less when purchased are considered cash and cash equivalents. The Company maintains its cash in bank accounts which may exceed federally insured limits.

**Concentration of credit risk and limited suppliers** - Management routinely assesses the financial strength of its customers and, as a consequence, believes accounts receivable are stated at the net realizable value and credit risk exposure is limited. Two distributors accounted for 50% and 32% of revenues for the year ended December 31, 2016, and 87% and 10% of accounts receivable at December 31, 2016. Two distributors accounted for 37% and 29% of revenues for the year ended December 31, 2015, and 63% and 10% of accounts receivable at December 31, 2015.

We depend on suppliers for product component materials and other components that are subject to stringent regulatory requirements. We currently purchase most of our product component materials from single suppliers and the loss of any of these suppliers could result in a disruption in our production. If this were to occur, it may be difficult to arrange a replacement supplier because certain of these materials may only be available from one or a limited number of sources. In addition, establishing additional or replacement suppliers for these materials may take a substantial period of time, as certain of these suppliers must be approved by regulatory authorities.

**Accounts receivable** - Accounts receivable are stated at the amount management expects to collect from outstanding balances. Management provides for probable uncollectible amounts through a charge to earnings based on its assessment of the current status of individual accounts. Receivables are generally considered past due if greater than 60 days old. Balances that are still outstanding after management has used reasonable collection efforts are written off through a charge to the allowance for doubtful accounts.

**Inventory** - Inventory consists of finished medical equipment and parts and is stated at the lower of cost or market, which is valued using the first in, first out (“FIFO”) method. Market is based upon realizable value less allowance for selling and distribution expenses. The Company analyzes its inventory levels and writes down inventory that has, or is expected to, become obsolete.

Depreciation of property and equipment - The straight-line method of depreciation is used for computing depreciation on property and equipment. Depreciation is based on estimated useful lives as follows: machines and equipment, 3 years; old or used devices, 5 years; new devices, 15 years; office and computer equipment, 3 years; furniture and fixtures, 3 years; and software, 2 years.





SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
Years Ended December 31, 2016 and 2015

2. Summary of significant accounting policies (continued)

Intangible assets - Intangible assets subject to amortization consist of patents which are recorded at cost. Patents are amortized on a straight-line basis over 11.4 years. The Company regularly reviews intangible assets to determine if facts and circumstances indicate that the useful life is shorter than the Company originally estimated or that the carrying amount of the assets may not be recoverable. Factors the Company considers important and could trigger an impairment review include the following:

Significant delays or obstacles encountered in the dermaPACE device clinical trial and PMA application;

Significant changes in the manner in which the Company uses its assets or significant changes in the Company's overall business strategy; and

Significant underperformance of the Company's assets relative to future operating results.

If such facts and circumstances exist, the Company assesses the recoverability of the intangible assets by comparing the projected undiscounted net cash flows associated with the related asset or group of assets over their remaining lives against their respective carrying amounts. If recognition of an impairment charge is necessary, it is measured as the amount by which the carrying amount of the intangible asset exceeds its fair value.

Fair value of financial instruments - The book values of accounts receivable, accounts payable, and other financial instruments approximate their fair values, principally because of the short-term maturities of these instruments.

The Company has adopted ASC 820-10, Fair Value Measurements, which defines fair value, establishes a framework for measuring fair value and requires disclosures about fair value measurements. The framework that is set forth in this standard is applicable to the fair value measurements where it is permitted or required under other accounting pronouncements.

The ASC 820-10 hierarchy ranks the quality and reliability of inputs, or assumptions, used in the determination of fair value and requires financial assets and liabilities carried at fair value to be classified and disclosed in one of the following three categories:

Level 1 - Observable inputs that reflect quoted prices (unadjusted) in active markets for identical assets and liabilities;

Level 2 - Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly; and

Level 3 - Unobservable inputs that are not corroborated by market data, therefore requiring the Company to develop its own assumptions.

The Company accounts for derivative instruments under ASC 815, Accounting for Derivative Instruments and Hedging Activities, as amended and interpreted. ASC 815 requires that the Company recognize all derivatives on the balance sheet at fair value. The fair value of the warrant liability is determined based on a lattice solution, binomial

approach pricing model, and includes the use of unobservable inputs such as the expected term, anticipated volatility and risk-free interest rate, and therefore is classified within level 3 of the fair value hierarchy.



SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
 Years Ended December 31, 2016 and 2015

2. Summary of significant accounting policies (continued)

The following table sets forth a summary of changes in the fair value of the derivative liability for the year ended December 31, 2016:

	Warrant
	Liability
Balance at December 31, 2015	\$138,100
New issuances	34,441
Warrant redemption	(1,154,139)
Change in fair value	2,223,718
Balance at December 31, 2016	\$1,242,120

The Company's notes payable, related parties had an aggregate outstanding principal balance of \$5,364,572, net of \$8,171 debt discount at December 31, 2016 and \$5,348,112, net of \$24,631 debt discount at December 31, 2015, respectively. Interest accrues on the notes at a rate of eight percent per annum, effective June 15, 2015. The fair value was determined using estimated future cash flows discounted at current rates, which is a Level 3 measurement. The estimated fair value of the Company's notes payable, related parties was \$4,923,723 and \$4,844,792 at December 31, 2016 and 2015, respectively.

Impairment of long-lived assets – The Company reviews long-lived assets for impairment whenever facts and circumstances indicate that the carrying amounts of the assets may not be recoverable. An impairment loss is recognized only if the carrying amount of the asset is not recoverable and exceeds its fair value. Recoverability of assets to be held and used is measured by comparing the carrying amount of an asset to the estimated undiscounted future cash flows expected to be generated by the asset. If the asset's carrying value is not recoverable, an impairment charge is recognized for the amount by which the carrying amount of the asset exceeds its fair value. The Company determines fair value by using a combination of comparable market values and discounted cash flows, as appropriate.

Revenue recognition - Sales of medical devices, including related applicators, are recognized when shipped to the customer. Shipments under agreements with distributors are invoiced at a fixed price, are not subject to return, and payment for these shipments is not contingent on sales by the distributor. The Company recognizes revenues on shipments to distributors in the same manner as with other customers. Fees from services performed are recognized when the service is performed.

Shipping and handling costs - Shipping charges billed to customers are included in revenues. Shipping and handling costs have been recorded in cost of revenues.

Income taxes - Income taxes are accounted for utilizing the asset and liability method prescribed by the provisions of ASC 740, Income Taxes, Accounting for Income Taxes. Deferred tax assets and liabilities are determined based on

differences between the financial reporting and tax basis of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. A valuation allowance is provided for the deferred tax assets, including loss carryforwards, when it is more likely than not that some portion or all of a deferred tax asset will not be realized.



SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
Years Ended December 31, 2016 and 2015

2. Summary of significant accounting policies (continued)

A provision of ASC 740, Income Taxes, Accounting for Uncertainty in Income Taxes (FIN 48) specifies the way public companies are to account for uncertainties in income tax reporting, and prescribes a methodology for recognizing, reversing, and measuring the tax benefits of a tax position taken, or expected to be taken, in a tax return. ASC 740 requires the evaluation of tax positions taken or expected to be taken in the course of preparing the Company's tax returns to determine whether the tax positions would "more-likely-than-not" be sustained if challenged by the applicable tax authority. Tax positions not deemed to meet the more-likely-than-not threshold would be recorded as a tax benefit or expense in the current year.

The Company will recognize in income tax expense interest and penalties related to income tax matters. For the years ended December 31, 2016 and 2015, the Company did not have any amounts recorded for interest and penalties.

Loss per share - The Company calculates net income (loss) per share in accordance with ASC 260, Earnings Per Share. Under the provisions of ASC 260, basic net income (loss) per share is computed by dividing the net income (loss) attributable to common stockholders for the period by the weighted average number of shares of common stock outstanding for the period. Diluted net income (loss) per share is computed by dividing the net income (loss) attributable to common stockholders by the weighted average number of shares of common stock and dilutive common stock equivalents then outstanding. To the extent that securities are "anti-dilutive," they are excluded from the calculation of diluted net income (loss) per share. As a result of the net loss for the years ended December 31, 2016 and 2015, respectively, all potentially dilutive shares were anti-dilutive and therefore excluded from the computation of diluted net loss per share. The anti-dilutive equity securities totaled 94,290,134 shares and 48,376,071 shares at December 31, 2016 and 2015, respectively.

Comprehensive income – ASC 220, Comprehensive Income, Reporting Comprehensive Income establishes standards for reporting comprehensive income (loss) and its components in a financial statement. Comprehensive income (loss) as defined includes all changes in equity (net assets) during a period from non-owner sources. The only source of other comprehensive income (loss) for the Company, which is excluded from net income (loss), is foreign currency translation adjustments.

Stock-based compensation - The Company uses the fair value method of accounting prescribed by ASC 718, Compensation – Stock Compensation, Accounting for Stock-Based Compensation for its employee stock option program. Under ASC 718, stock-based compensation cost is measured at the grant date based on the fair value of the award and is recognized as expense over the applicable vesting period of the stock award (generally up to three years).

Research and development - Research and development costs are expensed as incurred. Research and development costs include payments to third parties that specifically relate to the Company's products in clinical development, such as payments to contract research organizations, clinical investigators, clinical monitors, clinical related consultants and insurance premiums for clinical studies. In addition, employee costs (salaries, payroll taxes, benefits and travel) for employees of the regulatory affairs, clinical affairs, quality assurance, and research and development departments are classified as research and development costs.

Recent pronouncements – New accounting pronouncements are issued by the Financial Standards Board ("FASB") or other standards setting bodies that the Company adopts according to the various timetables the FASB specifies.







SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
Years Ended December 31, 2016 and 2015

2. Summary of significant accounting policies (continued)

In May 2014, the FASB issued Accounting Standards Update No. 2014-09, Revenue from Contracts with Customers (ASU 2014-09), which supersedes nearly all existing revenue recognition guidance under U.S. GAAP. The core principle of ASU 2014-09 is to recognize revenues when promised goods or services are transferred to customers in an amount that reflects the consideration to which an entity expects to be entitled for those goods or services. ASU 2014-09 defines a five-step process to achieve this core principle and, in doing so, more judgment and estimates may be required within the revenue recognition process than are required under existing U.S. GAAP. The standard is effective for annual periods beginning after December 15, 2017, and interim periods therein, using either of the following transition methods: (i) a full retrospective approach reflecting the application of the standard in each prior reporting period with the option to elect certain practical expedients, or (ii) a retrospective approach with the cumulative effect of initially adopting ASU 2014-09 recognized at the date of adoption (which includes additional footnote disclosures). In July 2015, the FASB confirmed a one-year delay in the effective date of ASU 2014-09, making the effective date for the Company the first quarter of fiscal 2019 instead of the current effective date, which was the first quarter of fiscal 2018. In August 2015, the FASB issued ASU 2015-14, Revenue from Contracts with Customers (Topic 606), deferring the effective date of ASU 2014-09 by one year. The Company can elect to adopt the provisions of ASU 2014-09 for annual periods beginning after December 31, 2017, including interim periods within that reporting period. The FASB also agreed to allow entities to choose to adopt the standard as of the original effective date. The Company is currently evaluating the impact of the pending adoption of ASU 2014-09 on the consolidated financial statements and has not yet determined the method by which the Company will adopt the standard.

In August 2014, the FASB issued ASU 2014-15, Presentation of Financial Statements – Going Concern (Subtopic 205-40): Disclosure of Uncertainties about an Entity’s Ability to Continue as a Going Concern. This ASU provides guidance on management’s responsibility to evaluate whether there is substantial doubt about an entity’s ability to continue as a going concern and to provide related disclosures in the notes to the financial statements. The amendments in this ASU should help reduce the diversity in the timing and content of disclosures in the notes to the financial statements. This guidance is effective for fiscal years, and interim periods within those fiscal years, ending after December 15, 2016, with early adoption permitted. The Company adopted this guidance in the fourth quarter of 2016.

In April 2015, the FASB issued ASU 2015-03, Interest-Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs. This ASU provides guidance that simplifies the presentation of debt issuance costs by amending the accounting guidance to require that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of the related debt liability. The amendments are consistent with the accounting guidance related to debt discounts. This guidance is effective for the first interim or annual period beginning after December 15, 2015. The Company adopted this guidance in the first quarter of fiscal 2016.

In July 2015, the FASB issued Accounting Standards Update No. 2015-11, Simplifying the Measurement of Inventory (ASU 2015-11), which proposed that inventory should be measured at the lower of cost and net realizable value for inventory that is measured using first-in, first-out (FIFO) or average cost. The main provision of ASU 2015-11 is that an entity should measure inventory at the lower of cost and net realizable value, where net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal,

and transportation. This amendment does not apply to entities that measure inventory using last-in, first-out (LIFO) or the retail inventory method. The standard is effective for public entities for fiscal years beginning after December 15, 2016, including interim periods within those fiscal years. Early application is permitted as of the beginning of an interim or annual reporting period. The Company elected early adoption of this guidance as it more reasonably states inventory and adopted ASU 2015-11 effective January 1, 2016.



SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
 Years Ended December 31, 2016 and 2015

2. Summary of significant accounting policies (continued)

In November 2015, the FASB issued ASU 2015-17, Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes. This ASU provides guidance that simplifies the presentation of deferred income taxes. This ASU requires that deferred tax liabilities and assets be classified as noncurrent in a classified statement of financial position. This guidance is effective for financial statements issued for annual periods beginning after December 15, 2016, and interim periods within those annual periods. The implementation of this ASU is not expected to have a material impact on the Company's consolidated financial position or results of operations.

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842), which requires lessees to recognize the most leases on the balance sheet. The provisions of this guidance are effective for the annual periods beginning after December 15, 2018, and interim periods within those years, with early adoption permitted. Management is evaluating the requirements of this guidance and has not yet determined the impact of the adoption on the Company's financial position or results of operations.

In March 2016, the FASB issued ASU No. 2016-09, Compensation – Stock Compensation (Topic 718). This ASU provides guidance to simplify several aspects of the accounting for share-based payments transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. The guidance is effective for annual and interim periods beginning after December 31, 2016. Early adoption is permitted for an entity in an interim or annual period. We are currently evaluating the effect that the updated standard will have on our financial statements, but expect the guidance will add modest volatility in our equity-based compensation expense, provision for income taxes, and net income (loss).

In August 2016, the FASB issued ASU No. 2016-15, Statement of Cash Flows: Classification of Certain Cash Receipts and Cash Payments (Topic 230). This ASU will make eight targeted changes to how cash receipts and cash payments are presented and classified in the statement of cash flows. The ASU will be effective for fiscal years beginning after December 15, 2017. This standard will require adoption on a retrospective basis unless it is impracticable to apply, in which case it would be required to apply the amendments prospectively as of the earliest date practicable. Management is evaluating the requirements of this guidance and has not yet determined the impact of the adoption on the Company's financial position or results of operations.

3.  
 Inventory

Inventory consists of the following at December 31, 2016 and 2015:

	2016	2015
Inventory - finished goods	\$218,592	\$290,623

Inventory - parts	89,621	87,450
Gross inventory	308,213	378,073
Provision for losses and obsolescence	(76,260)	(93,165)
Net inventory	\$231,953	\$284,908



SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
 Years Ended December 31, 2016 and 2015

4.  
 Property and equipment

Property and equipment consists of the following at December 31, 2016 and 2015:

	2016	2015
Machines and equipment	\$240,295	\$240,295
Office and computer equipment	156,860	166,398
Devices	82,204	-
Software	34,528	34,528
Furniture and fixtures	16,019	20,380
Other assets	2,259	2,259
Total	532,165	463,860
Accumulated depreciation	(455,227)	(459,632)
Net property and equipment	\$76,938	\$4,228

Depreciation expense was \$19,858 and \$3,612 for the years ended December 31, 2016 and 2015, respectively. The depreciation policies followed by the Company are described in Note 2.

5.  
 Intangible assets

Intangible assets consist of the following at December 31, 2016 and 2015:

	2016	2015
Patents, at cost	\$3,502,135	\$3,502,135
Less accumulated amortization	(3,502,135)	(3,195,379)
Net intangible assets	\$-	\$306,756

Amortization expense was \$306,756 and \$306,757 for the years ended December 31, 2016 and 2015, respectively. The amortization policies followed by the Company are described in Note 2.







SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
 Years Ended December 31, 2016 and 2015

6.  
 Accrued expenses

Accrued expenses consist of the following at December 31, 2016 and 2015:

	2016	2015
Accrued executive severance	\$100,000	\$100,000
Accrued audit and tax preparation	100,000	93,500
Accrued legal professional fees	45,000	76,500
Deferred rent	41,341	-
Accrued outside services	31,533	58,813
Deferred revenue	18,810	-
Accrued board of director's fees	16,000	-
Accrued clinical study expenses	13,650	22,777
Accrued other	8,754	7,784
	\$375,088	\$359,374

On November 6, 2012, the Company entered into a Severance and Advisory Agreement (the "Severance Agreement") with Christopher M. Cashman in connection with his resignation as President and Chief Executive Officer, and a director of the Company. Pursuant to the Severance Agreement, Mr. Cashman will receive, as severance along with other non-cash items, six months of his base salary payable over the following six month period and bonus payments of \$100,000 upon each of four bonus payment events tied to the Company's clinical trial plan for the dermaPACE device, or December 31, 2016, whichever occurs first. The Company achieved three of the four bonus payment events in 2014 and paid \$300,000 in accrued executive severance during the year ended December 31, 2014. The accrued executive severance at December 31, 2016 and 2015 represents the unpaid portion of the bonus payments.

7.  
 Notes payable, related parties

The notes payable, related parties were issued in conjunction with the Company's purchase of the orthopedic division of HealthTronics, Inc. on August 1, 2005. The notes payable, related parties bear interest at 6% per annum. Quarterly interest through June 30, 2010, was accrued and added to the principal balance. Interest was paid quarterly in arrears beginning September 30, 2010. All remaining unpaid accrued interest and principal was due August 1, 2015.

On June 28, 2016, the Company and HealthTronics, Inc. entered into a second amendment (the "Second Amendment") to amend certain provisions of the notes payable, related parties. The Second Amendment provides for the extension of the due date to January 31, 2018.

On June 15, 2015, the Company and HealthTronics, Inc. entered into an amendment (the “Note Amendment”) to amend certain provisions of the notes payable, related parties. The Note Amendment provides for the extension of the due date to January 31, 2017. In connection with the Note Amendment, the Company entered into a security agreement with HealthTronics, Inc. to provide a first security interest in the assets of the Company. The notes payable, related parties bear interest at 8% per annum effective August 1, 2015 and during any period when an Event of Default occurs, the applicable interest rate shall increase by 2% per annum. The Company will be required to make mandatory prepayments of principal on the notes payable, related parties equal to 20% of the proceeds received by the Company through the issuance or sale of any equity securities in cash or through the licensing of the Company’s patents or other intellectual property rights.



SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
 Years Ended December 31, 2016 and 2015

7.

Notes payable, related parties (continued)

The notes payable, related parties had an aggregate outstanding principal balance of \$5,364,572, net of \$8,171 debt discount at December 31, 2016 and \$5,348,112, net of \$24,631 debt discount at December 31, 2015, respectively.

In addition, the Company, in connection with the Note Amendment, issued to HealthTronics, Inc. on June 15, 2015, a total of 3,310,000 warrants (the "Class K Warrants") to purchase shares of the Company's common stock, \$0.001 par value (the "Common Stock"), at an exercise price of \$0.55 per share, subject to certain anti-dilution protection. Each Class K Warrant represents the right to purchase one share of Common Stock. The warrants vested upon issuance and expire after ten years. The fair value of these warrants on the date of issuance was \$0.0112 and \$36,989 was recorded as a debt discount to be amortized over the life of the amendment.

In addition, the Company, in connection with the Second Amendment, issued to HealthTronics, Inc. on June 28, 2016, an additional 1,890,000 Class K Warrants to purchase shares of the Company's Common Stock at an exercise price of \$0.08 per share, subject to certain anti-dilution protection. The exercise price of the 3,310,000 Class K Warrants issued on June 15, 2015 was decreased to \$0.08 per share. The fair value of these warrants on the date of issuance was \$0.005 and \$9,214 was recorded as a debt discount to be amortized over the life of the amendment.

Accrued interest currently payable totaled \$109,426 and \$239,803 at December 31, 2016 and 2015, respectively.

As of January 1, 2017, we are in default with our interest payment and the note is callable by HealthTronics, Inc. The notes payable, related parties are shown a current liability.

Maturities on notes payable, related parties are as follows:

Years ending December 31, Amount

2017	\$5,372,742
2018	-
Total	\$5,372,742

Interest expense on notes payable, related parties totaled \$541,982 and \$413,200 for the years ended December 31, 2016 and 2015, respectively.

8.

Short term loan

On December 21, 2016, the Company entered into a short term loan with Millennium Park Capital LLC (the "Holder") in the principal amount of \$100,000. The principal amount shall be due and payable on March 31, 2017, or on the date

that money is obtained from the Company's Korean distributor, or date that money is obtained from a new distributor.

In addition, the Company will issue to the Holder 500,000 warrants to purchase shares of the Company's common stock, \$0.001 par value (the "Common Stock"), at an exercise price of \$0.17. Each warrant will represent the right to purchase one share of Common Stock. The warrants will vest upon issuance and have an expiration date of March 17, 2019. The fair value of these warrants on the date of issuance \$0.1168, using the Black-Scholes option pricing model, and \$58,400 was recorded as a debt discount to be amortized over the life of the short term loan.





SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
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9.  
 Income taxes

The Company files income tax returns in the United States federal jurisdiction and various state and foreign jurisdictions. The Company is no longer subject to United States federal and state and non-United States income tax examinations by tax authorities for years before 2008.

Deferred income taxes are provided for temporary differences between the carrying amounts and tax basis of assets and liabilities. Deferred taxes are classified as current or noncurrent based on the financial statement classification of the related asset or liability giving rise to the temporary difference. For those deferred tax assets or liabilities (such as the tax effect of the net operating loss carryforwards) which do not relate to a financial statement asset or liability, the classification is based on the expected reversal date of the temporary difference.

The income tax provision (benefit) from continuing operations consists of the following at December 31, 2016 and 2015:

	2016	2015
Current:		
Federal	\$-	\$-
State	-	-
Foreign	-	-
	-	-
Deferred:		
Federal	(1,367,488)	(1,605,319)
State	(150,246)	(176,377)
Foreign	7,128	2,419
Change in valuation allowance	1,510,606	1,779,277
	\$-	\$-

The income tax provision (benefit) amounts differ from the amounts computed by applying the United States federal statutory income tax rate of 35% to pretax income (loss) from continuing operations as a result of the following for the years ended December 31, 2016 and 2015:

	2016	2015
Tax expense (benefit) at statutory rate	\$(2,253,664)	\$(1,683,600)

Increase (reduction) in income taxes resulting from:

State income taxes (benefit), net of federal benefit	(160,335)	(119,778)
Non-deductible (gain) loss on warrant valuation adjustment	665,719	(19,895)
Income from foreign subsidiaries	17,077	12,330
Deferred tax true up	-	1,803,402
Change in valuation allowance - United States	1,510,606	(24,125)
Other	220,597	31,666
Income tax expense (benefit)	\$-	\$-



SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
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9.

Income taxes (continued)

The tax effects of temporary differences that give rise to the deferred tax assets at December 31, 2016 and 2015 are as follows:

	2016	2015
Deferred tax assets:		
Net operating loss carryforwards	\$27,839,703	\$26,451,449
Net operating loss carryforwards - foreign	120,451	127,578
Excess of tax basis over book value of property and equipment	13,933	20,158
Excess of tax basis over book value of intangible assets	447,626	443,597
Stock-based compensation	2,038,638	1,834,172
Accrued employee compensation	24,030	90,442
Capitalized equity costs	75,471	75,471
Inventory reserve	28,777	35,156
	30,588,629	29,078,023
Valuation allowance	(30,588,629)	(29,078,023)
Net deferred tax assets	\$-	\$-

During 2015, the Company undertook a detailed review of the Company's deferred taxes and it was determined that some reclassifications and adjustments were needed for stock-based compensation. All adjustments were offset by changes to the Company's valuation allowance and have been reflected in the 2015 year end balances noted above.

The Company's ability to use its net operating loss carryforwards could be limited and subject to annual limitations. In connection with future offerings, the Company may realize a "more than 50% change in ownership" which could further limit its ability to use its net operating loss carryforwards accumulated to date to reduce future taxable income and tax liabilities. Additionally, because United States tax laws limit the time during which net operating loss carryforwards may be applied against future taxable income and tax liabilities, the Company may not be able to take advantage of all or portions of its net operating loss carryforwards for federal income tax purposes.

The federal net operating loss carryforwards at December 31, 2016 will begin to expire in 2025.

10.

Equity Transactions

Warrant Exercise

On October 20, 2016, the Company issued 185,000 shares of common stock upon the exercise of 185,000 Class L Warrants to purchase shares of stock for \$0.08 per share under the terms of the Class L Warrant agreement.

On October 14, 2016, the Company issued 258,333 shares of common stock upon the exercise of 258,333 Class L Warrants to purchase shares of stock for \$0.08 per share under the terms of the Class L Warrant agreement.



SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
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10.

Equity Transactions (continued)

On September 20, 2016, the Company issued 400,000 shares of common stock upon the exercise of 400,000 Class L Warrants to purchase shares of stock for \$0.08 per share under the terms of the Class L Warrant agreement.

Cashless Warrant Exercise

On November 18, 2016, the Company issued 117,510 shares of common stock to DeMint Law, PLLC upon the cashless exercise of 143,400 Series A Warrants to purchase shares of stock for \$0.0334 per share based on a current market value of \$0.185 per share as determined under the terms of the Series A Warrant agreement.

On September 8, 2016, the Company issued 526,288 shares of common stock to Vigere Capital LP upon the cashless exercise of 971,667 Class M Warrants to purchase shares of stock for \$0.06 per share based on a current market value of \$0.11 per share as determined under the terms of the Class M Warrant agreement.

On August 23, 2016, the Company issued 343,434 shares of common stock to JDF Capital, Inc. upon the cashless exercise of 971,667 Class M Warrants to purchase shares of stock for \$0.06 per share based on a current market value of \$0.17 per share as determined under the terms of the Class M Warrant agreement.

On August 23, 2016, the Company issued 1,640,589 shares of common stock to JDF Capital, Inc. upon the cashless exercise of 4,641,667 Class J Warrants to purchase shares of stock for \$0.06 per share based on a current market value of \$0.17 per share as determined under the terms of the Class J Warrant agreement.

2016 Private Placement

On August 11, 2016, the Company began a private placement of securities (the “2016 Private Placement”) with select accredited investors in reliance upon the exemption from securities registration afforded by Section 4(a)(2) of the Securities Act of 1933, as amended (the “Securities Act”), an Rule 506 of Regulation D (“Regulation D”) as promulgated by the United States Securities and Exchange Commission (the “Commission”) under the Securities Act. The 2016 Private Placement offered Units (the “Units”) at a purchase price of \$0.06 per Unit, with each Unit consisting of (i) one (1) share of our common stock, \$0.001 par value (the “Common Stock”) and, (ii) one (1) detachable warrant (the “Warrants”) to purchase one (1) share of our Common Stock at an exercise price of \$0.08 per share.

On August 25, 2016 and September 27, 2016 in conjunction with the 2016 Private Placement, the Company issued an aggregate of 22,766,667 and 5,533,334, respectively, shares of common stock for an aggregate purchase price of \$1,366,000 and \$332,000, respectively.

The Company, in connection with the 2016 Private Placement, issued to the investors an aggregate of 28,300,001 warrants (the “Class L Warrants”) to purchase shares of common stock at an exercise price of \$0.08 per share. Each Class L Warrant represents the right to purchase one share of Common Stock. The warrants vested upon issuance and expire on March 17, 2019.

Pursuant to the terms of a Registration Rights Agreement that the Company entered with the accredited investors in connection with the 2016 Private Placement, the Company is required to file a registration statement that covers the shares of Common Stock and the shares of common stock issuable upon exercise of the Warrants. The failure on the part of the Company to satisfy certain deadlines described in the Registration Rights Agreement may subject the Company to payment of certain monetary penalties.





SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
Years Ended December 31, 2016 and 2015

10.

Equity Transactions (continued)

Michael N. Nemelka, the brother of a member of the Company's board of directors and an existing shareholder of the Company, was a purchaser in the 2016 Private Placement of \$75,000. A. Michael Stolarski, a member of the Company's board of directors and an existing shareholder of the Company, was a purchaser in the 2016 Private Placement of \$60,000.

At the closing of the 2016 Private Placement, the Company paid West Park Capital, Inc., the placement agent for the equity offering, cash compensation of \$169,800 based on the gross proceeds of the private placement and 2,830,000 Class L Warrants.

Consulting Agreement

In August 2016, the Company entered into a consulting agreement for which the fee for the services performed was paid with Company common stock. The Company issued 435,392 shares of common stock to Vigere Capital LP under this agreement. The fair value of the common stock issued to the consultant, based upon the closing market price of the Company's common stock at the date the common stock was issued, was recorded as a non-cash general and administrative expense for the year ended December 31, 2016.

Convertible Debenture and Restricted Stock

On July 29, 2016, the Company entered into a financing transaction for the sale of a Convertible Debenture (the "Debenture") in the principal amount of \$200,000, with gross proceeds of \$175,000 to the Company after payment of a 10% original issue discount. The offering was conducted pursuant to the exemption from registration provided by Section 4(a)(2) of the Act and Rule 506 of Regulation D thereunder. The Company did not utilize any form of general solicitation or general advertising in connection with the offering. The Debenture was offered and sold to one accredited investor (the "Investor").

The Investor is entitled to, at any time or from time to time, commencing on the date that is one hundred fifty one (151) days from the Issuance Date set forth above convert the Conversion Amount into Conversion Shares, at a conversion price for each share of Common Stock equal to either (i) if the Company is Deposit/Withdrawal at Custodian ("DWAC") Operational at the time of conversion, Seventy percent (70%) of the lowest closing bid price (as reported by Bloomberg LP) of Common Stock for the twenty (20) Trading Days immediately preceding the date of the date of conversion of the Debentures, or (ii) if either the Company is not DWAC Operational or the Common Stock is traded on the bottom tier OTC Pink (or, "pink sheets") at the time of conversion, Sixty Five percent (65%) of the lowest closing bid price (as reported by Bloomberg LP) of the Common Stock for the twenty (20) Trading Days immediately preceding the date of conversion of the Debentures, subject in each case to equitable adjustments resulting from any stock splits, stock dividends, recapitalizations or similar events.

The Company recorded \$124,900 in interest expense for the beneficial conversion feature of the debenture.

The Debenture is secured by the accounts receivable of the Company and, unless earlier redeemed, matures on the third anniversary date of issuance. The Company paid a commitment fee of of \$2,500.00) and issued 835,000 shares

of Restricted Stock. The fair value of the Restricted Stock on the date of issuance was \$0.06 and \$50,100 was recorded as interest expense.

In September 2016, the Company repaid the Debenture in full which totaled \$210,000 with a Redemption Price of 105% of the sum of the Principal Amount per the agreement. The premium of \$10,000 paid upon redemption was recorded as interest expense.



SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
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Years Ended December 31, 2016 and 2015

10.  
Equity Transactions (continued)

2016 Equity Offering

On March 11, 2016, April 6, 2016, and April 15, 2016 in conjunction with an equity offering of securities (the “2016 Equity Offering”) with select accredited investors, the Company issued an aggregate of 25,495,835, 3,083,334 and 1,437,501, respectively, shares of common stock for an aggregate purchase price of \$1,529,750, \$185,000, and \$86,200, respectively. The mandatory prepayment of principal on the Notes payable, related parties equal to 20% of the proceeds received by the Company required by the Note Amendment on June 15, 2015 was waived by HealthTronics, Inc. for this 2016 Equity Offering.

The Company, in connection with the 2016 Equity Offering, issued to the investors an aggregate of 30,016,670 warrants (the “Class L Warrants”) to purchase shares of common stock at an exercise price of \$0.08 per share. Each Class L Warrant represents the right to purchase one share of Common Stock. The warrants vested upon issuance and expire on March 17, 2019.

Pursuant to the terms of a Registration Rights Agreement that the Company entered into with the investors in connection with the 2016 Equity Offering, the Company is required to file a registration statement that covers the shares of common stock and the shares of common stock issuable upon exercise of the Class L Warrants. The registration statement was declared effective by the SEC on February 16, 2016.

Michael N. Nemelka, the brother of a member of the Company’s board of directors and an existing shareholder of the Company, was a purchaser in the 2016 Equity Offering of \$100,000. A. Michael Stolarski, a member of the Company’s board of directors and an existing shareholder of the Company, was a purchaser in the 2016 Equity Offering of \$75,000.

At the closing of the 2016 Equity Offering, the Company paid Newport Coast Securities, Inc., the placement agent for the equity offering, cash compensation of \$180,095 based on the gross proceeds of the private placement and 3,001,667 Class L Warrants. In addition, the Company paid an escrow fee of \$4,000 and an attorney fee of \$20,000 from the gross proceeds.

Series A Warrant Conversion

On January 13, 2016, the Company entered into an Exchange Agreement (the “Exchange Agreement”) with certain beneficial owners (the “Investors”) of Series A warrants (the “Warrants”) to purchase shares of the Company’s common stock, \$0.001 par value per share (the “Common Stock”), pursuant to which the Investors exchanged (the “Exchange”) all of their respective Warrants for either (i) shares of Common Stock or (ii) shares of Common Stock and shares of the Company’s Series B Convertible Preferred Stock, \$0.001 par value (the “Preferred Stock”).

The Exchange was based on the following exchange ratio (the “Exchange Ratio”): 1 Series A Warrant = 0.4685 shares of capital stock. Investors who, as a result of the Exchange, owned in excess of 9.99% (the “Ownership Threshold”) of the outstanding Common Stock, received a mixture of Common Stock and shares of Preferred Stock. They received Common Stock up to the Ownership Threshold, and received shares of Preferred Stock beyond the Ownership

Threshold (but the total shares of Common Stock and Preferred Stock issued to such holders was still based on the same Exchange Ratio). The relative rights, preferences, privileges and limitations of the Preferred Stock are as set forth in the Company's Certificate of Designation of Series B Convertible Preferred Stock, which was filed with the Secretary of State of the State of Nevada on January 12, 2016 (the "Series B Certificate of Designation").



SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
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10.  
Equity Transactions (continued)

In the Exchange an aggregate number of 23,701,428 Warrants were exchanged for 7,447,954 shares of Common Stock and 293 shares of Preferred Stock. Pursuant to the Series B Certificate of Designation, each of the Preferred Stock shares is convertible into shares of Common Stock at an initial rate of 1 Preferred Stock share for 12,500 Common Stock shares, which conversion rate is subject to further adjustment as set forth in the Series B Certificate of Designation. Pursuant to the terms of the Series B Certificate of Designation, the holders of the Preferred Stock shares will generally be entitled to that number of votes as is equal to the number of shares of Common Stock into which the Preferred Stock may be converted as of the record date of such vote or consent, subject to the Beneficial Ownership Limitation.

In connection with entering into the Exchange Agreement, the Company also entered into a Registration Rights Agreement, dated January 13, 2016, with the Investors. The Registration Rights Agreement requires that the Company file with the SEC a registration statement to register for resale the shares of the Common Stock issued in connection with the Exchange and the Common Stock issuable upon conversion of the Preferred Stock shares (the "Preferred Stock Conversion Shares"). The registration statement was declared effective by the SEC on February 16, 2016.

11.  
Preferred Stock

The Company's Articles of Incorporation authorize the issuance of up to 5,000,000 shares of "blank check" preferred stock with designations, rights and preferences as may be determined from time to time by the board of directors. On January 12, 2016, the Company filed a Certificate of Designation of Preferences, Rights and Limitations for Series B Convertible Preferred Stock of the Company (the "Certificate of Designation") with the Nevada Secretary of State. The Certificate of Designation amends the Company's Articles of Incorporation to designate 293 shares of preferred stock, par value \$0.001 per share, as Series B Convertible Preferred Stock. The Series B Convertible Preferred Stock has a stated value of \$1,000 per share. On January 13, 2016, in connection with the Series A Warrant Conversion, the Company issued 293 shares of Series B Convertible Preferred Stock (for a more detailed discussion regarding the Series A Warrant Conversion, see Note 10).

Under the Certificate of Designation, holders of Series B Convertible Preferred Stock are entitled to receive dividends equal (on an as-if-converted-to-common-stock basis) to and in the same form as dividends (other than dividends in the form of common stock) actually paid on shares of the common stock when, as and if such dividends are paid. Such holders will participate on an equal basis per-share with holders of common stock in any distribution upon winding up, dissolution, or liquidation of the Company. Holders of Series B Convertible Preferred Stock are entitled to convert each share of Series A Convertible Preferred Stock into 2,000 shares of common stock, provided that after giving effect to such conversion, such holder, together with its affiliates, shall not beneficially own in excess of 9.99% of the number of shares of common stock outstanding (the "Beneficial Ownership Limitation"). Holders of the Series B Convertible Preferred Stock are entitled to vote on all matters affecting the holders of the common stock on an "as converted" basis, provided that such holder shall only vote such shares of Series B Convertible Preferred Stock eligible for conversion without exceeding the Beneficial Ownership Limitation.



On April 29, 2016, the holders of Series B Convertible Preferred Stock converted the outstanding 293 shares of Series B Convertible Preferred Stock into 3,657,278 shares of common stock. As of April 29, 2016, there were no outstanding shares of Series B Convertible Preferred Stock.



SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
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11.  
 Preferred Stock (continued)

On March 14, 2014, the Company filed a Certificate of Designation of Preferences, Rights and Limitations for Series A Convertible Preferred Stock of the Company (the "Certificate of Designation") with the Nevada Secretary of State. The Certificate of Designation amends the Company's Articles of Incorporation to designate 6,175 shares of preferred stock, par value \$0.001 per share, as Series A Convertible Preferred Stock. The Series A Convertible Preferred Stock has a stated value of \$1,000 per share. On March 17, 2014, in connection with a Private Placement, the Company issued 6,175 shares of Series A Convertible Preferred Stock. As of January 6, 2015 there were no outstanding shares of Series A Convertible Preferred Stock.

12.  
 Warrants

A summary of warrants as of December 31, 2016 and 2015, and the changes during the years ended December 31, 2016 and 2015, is presented as follows:

Warrant class	Outstanding				Outstanding				
	as of				as of				
	December 31,				December 31,				
	2014	Issued	Exercised	Expired	2015	Issued	Exercised	Converted	Expired
Class E Warrants	3,576,737	-	-	-	3,576,737	-	-	-	(3,576,737)
Class F Warrants	300,000	-	-	-	300,000	-	-	-	-
Class G Warrants	1,503,409	-	-	-	1,503,409	-	-	-	-
Class H Warrants	1,988,095	-	-	-	1,988,095	-	-	-	-
Class I Warrants	1,043,646	-	-	-	1,043,646	-	-	-	-
	629,378	-	-	-	629,378	4,012,289	(4,641,667)	-	-

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Class J Warrants									
Class K Warrants	-	3,310,000	-	-	3,310,000	1,890,000	-	-	-
Class L Warrants	-	-	-	-	-	66,788,338	(843,333)	-	-
Class M Warrants	-	-	-	-	-	1,943,333	(1,943,333)	-	-
Series A Warrants	25,951,421	-	-	-	25,951,421	-	(143,400)	(23,701,427)	-
Series B Warrants	15,570,852	-	-	(15,570,852)	-	-	-	-	-
	50,563,538	3,310,000	-	(15,570,852)	38,302,686	74,633,960	(7,571,733)	(23,701,427)	(3,570,000)

A summary of the warrant exercise price per share and expiration date is presented as follows:

	Exercise	Expiration
	price/share	date
Class F Warrants	\$0.35	February 2018
Class G Warrants	\$0.80	July 2018
Class H Warrants	\$0.80	July 2018
Class I Warrants	\$0.85	September 2018
Class K Warrants	\$0.08	June 2025
Class L Warrants	\$0.08	March 2019
Series A Warrants	\$0.03	February 2021

The exercise price and the number of shares covered by the warrants will be adjusted if the Company has a stock split, if there is a recapitalization of the Company's common stock, or if the Company consolidates with or merges into another company.



SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
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12.  
Warrants (continued)

The exercise price of the Class K Warrants and the Series A Warrants are subject to a “down-round” anti-dilution adjustment if the Company issues or is deemed to have issued securities at a price lower than the then applicable exercise price of the warrants. The Class K Warrants may be exercised on a physical settlement or on a cashless basis. The Series A Warrants may be exercised on a physical settlement basis if a registration statement underlying the warrants is effective. If a registration statement is not effective (or the prospectus contained therein is not available for use) for the resale by the holder of the Series A Warrants, then the holder may exercise the warrants on a cashless basis.

In February 2013, the Company issued 2,000,000 warrants to a consultant to purchase the Company’s common stock at \$0.35 per share (the “Class F Warrants”). The five year Class F Warrants vest 300,000 on the date of grant and 1,700,000 upon the completion of a \$5,000,000, or greater, capital raise on or prior to June 8, 2013. A capital raise was not completed for the requisite amount and the 1,700,000 Class F Warrants expired by their terms. The Company recorded the underlying cost of the 300,000 Class F Warrants as a cost of the Public Offering.

In June 2015, the Company, in connection with the Note Amendment (Note 7), issued to HealthTronics, Inc. an aggregate total of 3,310,000 Class K Warrants to purchase shares of the Company’s common stock, \$0.001 par value, at an exercise price of \$0.55 per share, subject to certain anti-dilution protection. Each Class K Warrant represents the right to purchase one share of Common Stock. The warrants vested upon issuance and expire after ten years.

In June 2016, the Company, in connection with the Second Amendment (Note 7), issued to HealthTronics, Inc., an additional 1,890,000 Class K Warrants to purchase shares of the Company’s Common Stock at an exercise price of \$0.08 per share, subject to certain anti-dilution protection. The exercise price of the 3,310,000 Class K Warrants issued on June 15, 2015 was decreased to \$0.08 per share. The warrants vested upon issuance and expire after ten years.

The Class J Warrants, the Class K Warrants, the Series A Warrants and the Series B Warrants are derivative financial instruments. The estimated fair value of the Class J Warrants at the date of grant was \$12,776. The related debt discount was accreted to interest expense through the maturity date of the related note. The estimated fair value of the Class K Warrants at the date of grant was \$36,989 and recorded as debt discount, which is accreted to interest expense through the maturity date of the related notes payable, related parties. The estimated fair values of the Series A Warrants and the Series B Warrants at the date of grant were \$557,733 for the warrants issued in conjunction with the 2014 Private Placement and \$47,974 for the warrants issued in conjunction with the 18% Convertible Promissory Notes. The fair value of the Series A Warrants and Series B Warrants were recorded as equity issuance costs in 2014, a reduction of additional paid-in capital. The Series B Warrants expired unexercised in March 2015.

The estimated fair values were determined using a binomial option pricing model based on various assumptions. The Company’s derivative liabilities are adjusted to reflect estimated fair value at each period end, with any decrease or increase in the estimated fair value being recorded in other income or expense accordingly, as adjustments to the fair value of derivative liabilities. Various factors are considered in the pricing models the Company uses to value the warrants, including the Company’s current common stock price, the remaining life of the warrants, the volatility of the Company’s common stock price, and the risk-free interest rate. In addition, as of the valuation dates, management

assessed the probabilities of future financing and other re-pricing events in the binominal valuation models.





SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
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12.  
 Warrants (continued)

A summary of the changes in the warrant liability as of December 31, 2016 and December 31, 2015, and the changes during the years ended December 31, 2016 and 2015, is presented as follows:

	Class J	Class K	Class M	Series A	Series B	
	Warrants	Warrants	Warrants	Warrants	Warrants	Total
Warrant liability as of December 31, 2014	\$3,839	\$-	\$-	\$155,709	\$78	\$159,626
Issued	-	36,990	-	-	-	36,990
Change in fair value	(939)	(14,290)	-	(43,209)	(78)	(58,516)
Warrant liability as of December 31, 2015	\$2,900	\$22,700	\$-	\$112,500	\$-	\$138,100
Issued	-	25,350	9,091	-	-	34,441
Change in fair value	150,275	835,950	105,401	1,132,092	-	2,223,718
Redeemed	(153,175)	-	(114,492)	(886,472)	-	(1,154,139)
Warrant liability as of December 31, 2016	\$-	\$884,000	\$-	\$358,120	\$-	\$1,242,120

13.  
 Commitments and contingencies

Operating Leases

The Company leases office and storage space. Rent expense for the years ended December 31, 2016 and 2015, was \$178,073 and \$155,926, respectively. Minimum future lease payments under the operating lease consist of the following:

Year ending December 31,	Amount
2017	\$115,486
2018	135,704
2019	139,775
2020	143,969
2021	148,288

Total \$683,222

Litigation

The Company is involved in various legal matters that have arisen in the ordinary course of business. While the ultimate outcome of these matters is not presently determinable, it is the opinion of management that the resolution will not have a material adverse effect on the financial position or results of operations of the Company.

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SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
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14.  
Stock-based compensation

On November 1, 2010, the Company approved the Amended and Restated 2006 Stock Incentive Plan of SANUWAVE Health, Inc. effective as of January 1, 2010 (the "Stock Incentive Plan"). The Stock Incentive Plan permits grants of awards to selected employees, directors and advisors of the Company in the form of restricted stock or options to purchase shares of common stock. Options granted may include non-statutory options as well as qualified incentive stock options. The Stock Incentive Plan is currently administered by the board of directors of the Company. The Stock Incentive Plan gives broad powers to the board of directors of the Company to administer and interpret the particular form and conditions of each option. The stock options granted under the Stock Incentive Plan are non-statutory options which generally vest over a period of up to three years and have a ten year term. The options are granted at an exercise price determined by the board of directors of the Company to be the fair market value of the common stock on the date of the grant. At December 31, 2016 and 2015 the Stock Incentive Plan reserved a total of 22,500,000 and 12,500,000 shares of common stock for grant, respectively.

On November 9, 2016, the Company granted to the active employees, members of the board of directors and two members of the Company's Medical Advisory Board options to purchase 2,830,000 shares each of the Company's common stock at an exercise price of \$0.18 per share and vested upon issuance. Using the Black-Scholes option pricing model, management has determined that the options had a fair value per share of \$0.1524 resulting in compensation expense of \$431,292. Compensation cost was recognized upon grant.

On June 16, 2016, the Company granted to the active employees, members of the board of directors and two members of the Company's Medical Advisory Board options to purchase 3,300,000 shares each of the Company's common stock at an exercise price of \$0.04 per share and vested upon issuance. Using the Black-Scholes option pricing model, management has determined that the options had a fair value per share of \$0.0335 resulting in compensation expense of \$110,550. Compensation cost was recognized upon grant.

On October 1, 2015, the Company granted to the active employees and members of the board of directors options to purchase 1,900,000 shares of common stock at an exercise price of \$0.11 per share and vested upon issuance. Using the Black-Scholes option pricing model, management has determined that the options had a fair value per share of \$0.11 resulting in compensation expense of \$209,000. Compensation cost was recognized upon grant.

On October 1, 2015, the Company granted to the active employees, members of the board of directors and members of the Medical Advisory Board options to purchase 1,450,000 shares of common stock an exercise price of \$0.50 per share and vested upon issuance. Using the Black-Scholes option pricing model, management has determined that the options had a fair value per share of \$0.10 resulting in compensation expense of \$145,000. Compensation cost was recognized upon grant.

On August 13, 2015, Mr. Chiarelli and the Company entered into a confidential settlement agreement in response to an action filed against the Company by Mr. Chiarelli. The settlement agreement contains the entire understanding and complete agreement of the parties involved with respect to the circumstances, matters, events and transactions that were a subject of the action. A part of the settlement was the issuance of stock options. Using the Black-Scholes option pricing model, management has determined that the options had a fair value resulting in compensation expense of \$98,100. Compensation cost was recognized upon grant.

On April 28, 2015, the Company granted two members of the Company's Medical Advisory Board each options to purchase 50,000 shares of the Company's common stock at an exercise price of \$0.55 per share in place of an annual cash consulting fee for calendar year 2015. Using the Black-Scholes option pricing model, management has determined that the options had a fair value per share of \$0.11 resulting in compensation expense of \$11,107. Compensation cost was recognized over the requisite service period in calendar year 2015.



SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
 Years Ended December 31, 2016 and 2015

14.

Stock-based compensation (continued)

On May 7, 2014, the Company granted to the active employees options to purchase 900,000 shares of common stock at an exercise price of \$0.55 per share. Using the Black-Scholes option pricing model, management has determined that the options had a fair value per share of \$0.48 resulting in total compensation expense of \$429,001 that was recognized over the three year vesting period of the options. Compensation expense related to this grant was \$6,000 and \$30,000 for the years ended December 31, 2016 and 2015, respectively.

On February 21, 2013, the Company, granted the active employees and directors options to purchase 2,243,644 shares of common stock at an exercise price of \$0.35 per share. Using the Black-Scholes option pricing model, management has determined that the options had an average fair value per share of \$0.223 resulting in total compensation of \$499,621. Compensation cost is being recognized over the requisite service period. Compensation expense related to this grant was \$0 and \$11,327 for the years ended December 31, 2016 and 2015, respectively.

The fair value of each option award is estimated on the date of grant using the Black-Scholes option pricing model using the following weighted average assumptions for the years ended December 31, 2016 and 2015:

	2016	2015
Weighted average expected life in years	5.0	5.0
Weighted average risk free interest rate	1.28%	1.42%
Weighted average volatility	133.54%	120.63%
Forfeiture rate	0.0%	0.0%
Expected dividend yield	0.0%	0.0%

The expected life of options granted represent the period of time that options granted are expected to be outstanding and are derived from the contractual terms of the options granted. The risk-free rate for periods within the contractual life of the option is based on the United States Treasury yield curve in effect at the time of the grant. Since there is a limited trading history for our common stock, the expected volatility is based on historical data from companies similar in size and value to us. We estimate pre-vesting forfeitures at the time of grant and revise those estimates in subsequent periods if actual forfeitures differ from those estimates. The expected dividend yield is based on our historical dividend experience, however, since our inception, we have not declared dividends. The amount of stock-based compensation expense recognized during a period is based on the portion of the awards that are ultimately expected to vest. Ultimately, the total expense recognized over the vesting period will equal the fair value of the awards that actually vest.

For the years ended December 31, 2016 and 2015, the Company recognized \$547,842 and \$504,534, respectively, as compensation cost related to options granted.





SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
 Years Ended December 31, 2016 and 2015

14.  
 Stock-based compensation (continued)

A summary of option activity as of December 31, 2016 and 2015, and the changes during the years ended December 31, 2016 and 2015, is presented as follows:

	Options	Weighted Average Exercise Price per share
Outstanding at December 31, 2014	7,206,830	\$1.31
Granted	4,950,000	\$0.35
Exercised	-	\$-
Cancelled	-	\$-
Forfeited or expired	(2,083,445)	\$2.39
Outstanding at December 31, 2015	10,073,385	\$0.62
Granted	6,130,000	\$0.10
Exercised	-	\$-
Cancelled	-	\$-
Forfeited or expired	-	\$-
Outstanding at December 31, 2016	16,203,385	\$0.38
Vested and exercisable at December 31, 2016	16,203,385	\$0.38

The range of exercise prices for options was \$0.04 to \$2.00 for options outstanding at December 31, 2016 and 2015. The aggregate intrinsic value for outstanding options was \$702,500 and \$0 at December 31, 2016 and 2015, respectively. The aggregate intrinsic value for all vested and exercisable options was \$702,500 and \$0 at December 31, 2016 and 2015, respectively.

The weighted average remaining contractual term for outstanding exercisable stock options is 5.88 years and 7.46 years as of December 31, 2016 and 2015, respectively.

A summary of the Company's nonvested options as of December 31, 2016 and 2015, and changes during the years ended December 31, 2016 and 2015, is presented as follows:

Weighted

Average

Exercise Price

	Options	per share
Outstanding at December 31, 2014	914,542	\$0.37
Granted	4,950,000	\$0.35
Vested	(5,672,874)	\$0.36
Cancelled	-	\$-
Forfeited or expired	(16,666)	\$0.55
Outstanding at December 31, 2015	175,002	\$0.36
Granted	6,130,000	\$0.10
Vested	(6,305,002)	\$0.11
Cancelled	-	\$-
Forfeited or expired	-	\$-
Outstanding at December 31, 2016	-	\$-



SANUWAVE HEALTH, INC. AND SUBSIDIARIES  
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Years Ended December 31, 2016 and 2015

15.

Segment and geographic information

The Company has one line of business with revenues being generated from sales in Europe, Canada, Asia and Asia/Pacific. All significant expenses are generated in the United States. All significant assets are located in the United States.

16.

Subsequent events

Warrant Exercise

On January 24, 2017, the Company issued 600,000 shares of common stock upon the exercise of 600,000 Class L Warrants to purchase shares of stock for \$0.08 per share under the terms of the Class L Warrant Public Offering agreement. The Company received proceeds of \$48,000.

On March 10, 2017, the Company issued 363,333 shares of common stock upon the exercise of 363,333 Class L Warrants to purchase shares of stock for \$0.08 per share under the terms of the Class L Warrant Public Offering agreement. The Company received proceeds of \$29,067.

Cashless Warrant Exercise

On January 20, 2017, the Company issued 15,951 shares of common stock to Intracoastal Capital, LLC upon the cashless exercise of 20,000 Series A Warrants to purchase shares of stock for \$0.0334 per share based on a current market value of \$0.165 per share as determined under the terms of the Series A Warrant agreement.

On January 26, 2017, the Company issued 79,998 shares of common stock to Intracoastal Capital, LLC upon the cashless exercise of 100,000 Series A Warrants to purchase shares of stock for \$0.0334 per share based on a current market value of \$0.1669 per share as determined under the terms of the Series A Warrant agreement.

On February 2, 2017, the Company issued 158,240 shares of common stock to Intracoastal Capital, LLC upon the cashless exercise of 100,000 Series A Warrants to purchase shares of stock for \$0.0334 per share based on a current market value of \$0.17 per share as determined under the terms of the Series A Warrant agreement.

On February 6, 2017, the Company issued 80,804 shares of common stock to Intracoastal Capital, LLC upon the cashless exercise of 100,000 Series A Warrants to purchase shares of stock for \$0.0334 per share based on a current market value of \$0.174 per share as determined under the terms of the Series A Warrant agreement.

On March 13, 2017, the Company issued 297,035 shares of common stock to Lucas Hoppel upon the cashless exercise of 583,333 Class L Warrants to purchase shares of stock for \$0.08 per share based on a current market value of \$0.163 per share as determined under the terms of the Class L Warrant Private Offering agreement.





PART II  
INFORMATION NOT REQUIRED IN PROSPECTUS

The following table lists the costs and expenses payable by the registrant in connection with the sale of the common stock covered by this. All amounts shown are estimates except for the SEC registration fee.

SEC registration fee	\$1,280.61
Legal fees and expenses	*
Accounting fees and expenses	*
Miscellaneous fees and expenses	*
Total	\$*

\* To be completed by amendment.

ITEM 14. Indemnification of Directors and Officers

The Nevada General Corporation Law (“NGCL”) provides that a director or officer is not individually liable to the corporation or its stockholders or creditors for any damages as a result of any act or failure to act in his capacity as a director or officer unless (i) such act or omission constituted a breach of his/her fiduciary duties as a director or officer, and (ii) his/her breach of those duties involved intentional misconduct, fraud or a knowing violation of law. Under the NGCL, a corporation may indemnify directors and officers, as well as other employees and individuals, against any threatened, pending or completed action, suit or proceeding, except an action by or in the right of the corporation, by reason of the fact that he/she is or was a director, officer, employee or agent of the corporation so long as such person acted in good faith and in a manner which he/she reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his/her conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction or upon a plea of nolo contendere or its equivalent, does not, of itself, create a presumption that the person did not act in good faith and in a manner which he/she reasonably believed to be in or not opposed to the best interests of the corporation, or that, with respect to any criminal action or proceeding, he/she had reasonable cause to believe that his/her conduct was unlawful.

The NGCL further provides that indemnification may not be made for any claim as to which such a person has been adjudged by a court of competent jurisdiction, after exhaustion of all appeals therefrom, to be liable to the corporation or for amounts paid in settlement to the corporation, unless and only to the extent that the court in which the action or suit was brought or other court of competent jurisdiction determines upon application that, in view of all the circumstances of the case, the person is fairly and reasonably entitled to indemnity for such expenses as the court deems proper. To the extent that a director, officer, employee or agent of a corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding or in defense of any claim, issue or matter therein, the corporation must indemnify him/her against expenses, including attorneys’ fees, actually and reasonably incurred in connection with the defense. The NGCL provides that this is not exclusive of other rights to which those seeking indemnification may be entitled under any bylaw, agreement, vote of stockholders, or disinterested directors or otherwise.

The registrant’s articles of incorporation provide that the directors and officers will not be personally liable to the registrant or its stockholders for monetary damages for breach of their fiduciary duty as a director or officer, except for liability of a director or officer for acts or omissions involving intentional misconduct, fraud or a knowing violation of law, or the payment of dividends in violation of the NGCL. The registrant’s bylaws and contractual arrangements with certain of its directors and officers provide that the registrant is required to indemnify its directors and officers to the fullest extent permitted by law. The registrant’s bylaws and these contractual arrangements also require the registrant to advance expenses incurred by a director or officer in connection with the defense of any

proceeding upon receipt of an undertaking by or on behalf of the director or officer to repay the amount if it is ultimately determined by a court of competent jurisdiction that he/she is not entitled to be indemnified by the registrant. The registrant's bylaws also permit the registrant to purchase and maintain errors and omissions insurance on behalf of any director or officer for any liability arising out of his/her actions in a representative capacity. The registrant does not presently maintain any such errors and omissions insurance for the benefit of its directors and officers.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling us pursuant to the foregoing provisions, we have been informed that, in the opinion of the Securities and Exchange Commission, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, we will, unless in the opinion of our counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by us is against public policy as expressed hereby in the Securities Act and we will be governed by the final adjudication of such issue.





#### ITEM 15. Recent Sales of Unregistered Securities

In connection with each of the following unregistered sales and issuances of securities, the Company relied upon the exemption from registration provided by Section 4(a)(2) of the Securities Act of 1933, as amended, for transactions not involving a public offering.

##### Cashless Warrant Exercise

On November 18, 2016, the Company issued 117,510 shares of common stock to DeMint Law, PLLC upon the cashless exercise of 143,400 Series A Warrants to purchase shares of stock for \$0.0334 per share based on a current market value of \$0.185 per share as determined under the terms of the Series A Warrant agreement.

On September 8, 2016, the Company issued 526,288 shares of common stock to Vigere Capital LP upon the cashless exercise of 971,667 Class M Warrants to purchase shares of stock for \$0.06 per share based on a current market value of \$0.11 per share as determined under the terms of the Class M Warrant agreement.

On August 23, 2016, the Company issued 343,434 shares of common stock to JDF Capital, Inc. upon the cashless exercise of 971,667 Class M Warrants to purchase shares of stock for \$0.06 per share based on a current market value of \$0.17 per share as determined under the terms of the Class M Warrant agreement.

On August 23, 2016, the Company issued 1,640,589 shares of common stock to JDF Capital, Inc. upon the cashless exercise of 4,641,667 Class J Warrants to purchase shares of stock for \$0.06 per share based on a current market value of \$0.17 per share as determined under the terms of the Class J Warrant agreement.

##### August 2016 Private Placement

On August 24, 2016, the Company entered into a Securities Purchase Agreement with certain “accredited investors” (as that term is defined in the Commission’s Regulation D) (the “Purchasers”) for the issuance of an aggregate total 28,300,001 shares of the Company’s common stock, par value \$0.001 per share (the “Common Stock”) for an aggregate total purchase price of \$1,698,000. The Company intends to use the proceeds from the private placement for working capital and general corporate purposes.

In addition, the Company, in connection with the private placement, issued to the Purchasers an aggregate total of 28,300,001 warrants (the “Class L Warrants”) to purchase shares of Common Stock at an exercise price of \$0.08 per warrant. Each Class L Warrant represents the right to purchase one share of Common Stock. The warrants vested upon issuance and expire on March 17, 2019.

Pursuant to the terms of a Registration Rights Agreement that the Company entered with the Purchasers in connection with the private placement, the Company is required to file a registration statement or registration statements with the Commission that cover the resale by the Purchasers in the private placement of the shares of Common Stock and the shares of Common Stock issuable upon exercise of the Class L Warrants. The failure on the part of the Company to satisfy certain deadlines described in the Registration Rights Agreement may subject the Company to payment of certain monetary penalties.

Anthony M. Stolarski, a member of our board of directors and an existing shareholder of the Company and Michael Nemelka, the brother of a member of our board of directors and an existing shareholder of the Company, were purchasers in this private placement.

At the closing of the private placement, we paid WestPark Capital, Inc., the placement agent for the private placement, a fee of (i) ten percent (10%) of the aggregate purchase price of the securities sold in the private placement and (ii) warrants to purchase ten percent (10%) of the number of shares sold in the private placement. Accordingly, the Placement Agent was issued warrants to purchase 2,830,000 shares of Common Stock at an exercise price of \$0.08 per share.

#### Private Placement Convertible Debenture Investment

On July 29, 2016, the Company entered into a financing transaction for the sale of a Convertible Debenture (the “Debenture”) in the principal amount of \$200,000, with gross proceeds of \$175,000 to the Company after payment of a 10% original issue discount. The offering was conducted pursuant to the exemption from registration provided by Section 4(a)(2) of the Act and Rule 506 of Regulation D thereunder. The Company did not utilize any form of general solicitation or general advertising in connection with the offering. The Debenture was offered and sold to one accredited investor.



The Debenture was issued pursuant to the terms of a purchase agreement among the Company and the Investor. The Debenture is secured by the accounts receivable of the Company and, unless earlier redeemed, matures on the third anniversary date of issuance. The Company paid to Investor a non-accountable fee (the "Commitment Fee") of (i) Two Thousand Five Hundred and 00/100 Dollars (\$2,500.00) and (ii) Eight Hundred Thirty-Five Thousand (835,000) shares of Restricted Stock for Investor's expenses and analysis performed in connection with the analysis of the Company and the propriety of the Investor's making the contemplated investment. The Commitment Fee was paid on the signing closing date immediately upon receipt of the signing purchase price.

In September 2016, the Company repaid the Debenture in full which totaled \$210,000 with a Redemption Price of 105% of the sum of the Principal Amount per the agreement.

#### Consulting Agreement

In August 2016, the Company entered into a consulting agreement for which the fee for the services performed was paid with Company common stock. The Company issued 435,392 shares of common stock to Vigere Capital LP under this agreement. The fair value of the common stock issued to the consultant, based upon the closing market price of the Company's common stock at the date the common stock was issued, was recorded as a non-cash general and administrative expense for the year ended December 31, 2016.

#### August 2016 Warrants issued for consulting services

In August 2016, the Company issued 2,140,000 warrants to purchase shares of Common Stock at an exercise price of \$0.08 per warrant to Millennium Park Capital LLC. Each Class L Warrant represents the right to purchase one share of Common Stock. The warrants vested upon issuance and expire on March 17, 2019. This issuance was made pursuant to the exemption from registration provided by Section 4(a)(2) of the Act and Rule 506 of Regulation D thereunder. The Company did not utilize any form of general solicitation or general advertising in connection with the issuance.

#### June 2016 Warrants issued for consulting services

In June 2016, the Company issued 500,000 warrants to purchase shares of Common Stock at an exercise price of \$0.08 per warrant to Millennium Park Capital LLC. Each Class L Warrant represents the right to purchase one share of Common Stock. The warrants vested upon issuance and expire on March 17, 2019. This issuance was made pursuant to the exemption from registration provided by Section 4(a)(2) of the Act and Rule 506 of Regulation D thereunder. The Company did not utilize any form of general solicitation or general advertising in connection with the issuance.

#### Employee Stock Option Grant

On November 9, 2016, the Company granted to the active employees, members of the board of directors and two members of the Company's Medical Advisory Board options to purchase 2,830,000 shares each of the Company's common stock at an exercise price of \$0.18 per share and vested upon issuance. Management will utilize the Black-Scholes option pricing model to determine the fair value of the options per shares and record the appropriate compensation cost as of grant.

On June 16, 2016, the Company granted to the active employees, members of the board of directors and two members of the Company's Medical Advisory Board options to purchase 3,300,000 shares each of the Company's common stock at an exercise price of \$0.04 per share and vested upon issuance. Using the Black-Scholes option pricing model,

management has determined that the options had a fair value per share of \$0.0335 resulting in compensation expense of \$110,550. Compensation cost was recognized upon grant.

On October 1, 2015, the Company granted to the active employees, members of the board of directors and members of the medical advisory board options to purchase 1,900,000 shares of common stock at an exercise price of \$0.11 per share and 1,450,000 shares of common stock at an exercise price of \$0.50 per share. Using the Black-Scholes option pricing model, management has determined that the options had a fair value per share of \$0.10567 resulting in compensation expense of \$354,000. Compensation cost was recognized at grant date.

#### HealthTronics Note

On June 28, 2016, the Company and HealthTronics, Inc. entered into a second amendment (the "Second Amendment") to amend certain provisions of the notes payable, related parties. The Second Amendment provides for the extension of the due date to January 31, 2018. In addition, the Company, in connection with the Second Amendment, issued to HealthTronics, Inc. on June 28, 2016, an additional 1,890,000 Class K Warrants to purchase shares of the Company's Common Stock at an exercise price of \$0.08 per share, subject to certain anti-dilution protection. The exercise price of the 3,310,000 Class K Warrants issued on June 15, 2015 was decreased to \$0.08 per share.



On June 15, 2015, the Company, and its wholly owned subsidiary SANUWAVE, Inc., a Delaware corporation (the “Borrower”) entered into an amendment (the “Amendment”) to amend certain provisions of two promissory notes (the “Promissory Notes”) dated August 1, 2005 between the Borrower and HealthTronics, Inc., with an aggregate outstanding principal balance of \$5,372,742. In connection with the Amendment, the Company issued to HealthTronics, on June 15, 2015, an aggregate total of 3,310,000 warrants (the “Class K Warrants”) to purchase shares of the Company’s Common Stock, at an exercise price of \$0.55 per share, subject to certain anti-dilution protection. Each Class K Warrant represents the right to purchase one share of Common Stock. The warrants vested upon issuance and expire after ten (10) years.

#### 2014 Private Placement

On March 17, 2014, the Company completed a private placement to ten institutional and individual accredited investors for the issuance of an aggregate total of 6,210,000 shares of Common Stock and 6,175 shares of Series A Convertible Preferred Stock for an aggregate total purchase price of \$9,280,000. Each share of Series A Convertible Preferred Stock was convertible into 2,000 shares of Common Stock at the option of the holder. The net proceeds received by the Company were \$8,562,500, net of offering costs of \$717,500.

As part of the private placement, the investors were issued an aggregate total of 23,200,000 Series A Warrants to purchase shares of Common Stock at an exercise price of \$0.50 per share. The warrants vested upon issuance and expire after five years. In addition, the investors were issued an aggregate total of 13,920,000 Series B Warrants to purchase shares of Common Stock at an exercise price of \$1.50 per share. The warrants vested upon issuance and expire after one year. For each of the warrants, the holder will be able to exercise the warrant on a cashless basis at any time following the one-year anniversary of the closing of the private placement, if a registration statement covering the shares of our Common Stock underlying such warrants is not effective.

At the closing of the private placement, we paid Newport Coast Securities, Inc., the placement agent for the private placement, and Oppenheimer & Co. Inc., the former placement agent, cash compensation based on the gross proceeds of the private placement and 696,000 Series A Warrants and 417,600 Series B Warrants. The terms of these warrants are identical to the warrants issued to investors in the private placement.

#### 2014 Note Conversion

During the period January 24, 2014 through March 7, 2014, the Company entered into subscriptions payable for 18% convertible promissory notes, as amended, (the “18% Convertible Promissory Notes”) from selected accredited investors. Up to \$1,000,000 aggregate principal amount of 18% Convertible Promissory Notes were offered by the Company. The Company completed the offering and issued an aggregate \$815,000 in convertible notes in March 2014. Michael N. Nemelka, the brother of a member of the Company’s board of directors and an existing shareholder of the Company, purchased \$110,000 of the convertible notes.

On March 17, 2014, in conjunction with the private placement, the 18% Convertible Promissory Notes were automatically converted under the same terms as the private placement. The private placement was a qualified financing as defined in the 18% Convertible Promissory Notes. The unpaid principal and interest balance, which in the aggregate totaled \$822,168, were converted into 1,644,337 shares of common stock. In addition, under the same terms as in the private offering, the Company issued to the note holders an aggregate total of 2,055,421 five-year warrants with a strike price of \$0.50 per share and 1,233,252 one-year warrants with a strike price of \$1.50 per share.

#### 2013 Private Placements



In September, October and December 2013, the Company, in conjunction with offerings of securities of the Company, pursuant to an exemption from registration under the Act, issued 1,043,646 units (as described below) to certain “accredited investors,” as that term is defined in SEC Rule 501 under the Act, for an aggregate total purchase price of \$626,188. Each unit was sold to the accredited investors at a purchase price of \$0.60 per unit. Each unit in the private placements consists of; (i) one share of common stock and (ii) a five-year warrant to purchase one share of common stock, at an exercise price of \$0.85. Kevin A. Richardson II, who is the chairman of the board of directors of the Company, and Joseph Chiarelli, who is the Chief Executive Officer of the Company, and Michael M. Nemelka, who is the brother of John F. Nemelka, a member of the board of directors of the Company, purchased units in the private placements.

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### Senior Secured Notes Conversion

On July 31, 2013, all of the holders (the “Holders”) of the Company’s 18% senior secured convertible promissory notes, as amended, (the “Senior Secured Notes”), in the original aggregate issuance amount of \$2,000,000, voluntarily converted all of the outstanding principal and interest of the Senior Secured Notes into Common Stock of the Company. The aggregate outstanding amount of principal and interest on the Senior Secured Notes at July 31, 2013 of \$2,186,906 was converted into 10,934,530 shares of restricted Common Stock at the conversion price of \$0.20 per share pursuant to the Senior Secured Note agreements. In return for the Holders’ voluntarily converting the outstanding Senior Secured Notes into Common Stock on or before July 31, 2013, the Company agreed to issue to the Holders warrants to purchase an aggregate total of 1,988,095 shares of Common Stock. The warrants have an exercise price of \$0.80 per share and are exercisable during the five-year period beginning on the date of issuance. Kevin A. Richardson, II, chairman of the board of directors of the Company, converted an aggregate balance of \$64,500 of the Senior Secured Notes and received 322,500 shares of Common Stock and 58,635 warrants in the foregoing transaction.

### Subscription Agreement

On November 27, 2012, we entered into a subscription agreement (Subscription Agreement) with David N. Nemelka (Subscriber), the brother of John F. Nemelka, a member of our board of directors, whereby the Subscriber agreed to purchase from us, and us agreed to sell and issue, a total of 4,000,000 shares of our common stock, at a purchase price equal to \$0.25 per share, for an aggregate sales price of \$1,000,000. These shares were sold pursuant to the exemption provided by the SEC’s Rule 506 of Regulation D under the Securities Act. As of December 31, 2012, the Subscriber had paid us \$25,000 and we issued to the Subscriber 100,000 shares of common stock. For the three months ended March 31, 2013, the Subscriber has paid us an additional \$75,000 and was issued an additional 300,000 shares of common stock. The Subscriber completed its obligations under the Subscription Agreement with the additional \$900,000 being received on May 27, 2014, and the Company issued the corresponding 3,600,000 shares of Common Stock.

### ITEM 16. Exhibits and Financial Statement Schedules

Exhibit No.	Description
<u>2.1</u>	Agreement and Plan of Merger, dated as of September 25, 2009, by and between Rub Music Enterprises, Inc., RME Delaware Merger Sub, Inc. and SANUWAVE, Inc. (Incorporated by reference to Form 8-K filed with the SEC on September 30, 2009).
<u>3.1</u>	Articles of Incorporation (Incorporated by reference to the Form 10-SB filed with the SEC on December 18, 2007).
<u>3.2</u>	Certificate of Amendment to the Articles of Incorporation (Incorporated by reference to Appendix A to the Definitive Schedule 14C filed with the SEC on October 16, 2009).
<u>3.3</u>	Certificate of Amendment to the Articles of Incorporation (Incorporated by reference to Appendix A to the Definitive Schedule 14C filed with the SEC on April 16, 2012).
<u>3.4</u>	Certificate of Amendment to the Articles of Incorporation (Incorporated by reference to Appendix A to the Definitive Proxy Statement of Schedule 14A filed with the SEC on June 25, 2015).
<u>3.5</u>	Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock of the Company dated March 14, 2014 (Incorporated by reference to the Form 8-K filed with the SEC on March 18, 2014).
<u>3.6</u>	

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Certificate of Designation of Preferences, Rights and Limitations of Series B Convertible Preferred Stock of the Company dated January 12, 2016 (Incorporated by reference to the Form 8-K filed with the SEC on January 19, 2016).

3.7 Bylaws (Incorporated by reference to the Form 10-SB filed with the SEC on December 18, 2007).

4.1 Form of Class A Warrant Agreement (Incorporated by reference to Form 8-K filed with the SEC on September 30, 2009).

4.2 Form of Class B Warrant Agreement (Incorporated by reference to Form 8-K filed with the SEC on September 30, 2009).

4.3 Form of Class D Warrant Agreement (Incorporated by reference to Form 8-K filed with the SEC on October 14, 2010).

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- 4.4 Form of Class E Warrant Agreement (Incorporated by reference to Form 8-K filed with the SEC on April 7, 2011).
- 4.5 Form of Series A Warrant (Incorporated by reference to the Form 8-K filed with the SEC on March 18, 2014).
- 4.6 Form of Series B Warrant (Incorporated by reference to the Form 8-K filed with the SEC on March 18, 2014).
- 4.7 Form of 18% Senior Secured Convertible Promissory Note issued by SANUWAVE Health, Inc. to select accredited investors (Incorporated by reference to Form 8-K filed with the SEC on February 27, 2013).
- 4.8 Form of Convertible Promissory Note between the Company and accredited investors a party thereto (Incorporated by reference to the Form 8-K filed with the SEC on March 18, 2014).
- 4.9 Amendment No. 1 to the Convertible Note Agreement between the Company and accredited investors a party thereto (Incorporated by reference to the Form 8-K filed with the SEC on March 18, 2014).
- 4.10 Class K Warrant Agreement by and between the Company and HealthTronics, Inc., dated June 15, 2015 (Incorporated by reference to the Form 8-K filed with the SEC on June 18, 2015).
- 4.11 Form of Class L Warrant Common Stock Purchase Warrant (Incorporated by reference to the Form 8-K filed with the SEC on March 17, 2016).
- 4.12 Amendment to Class K Warrant Agreement (Incorporated by reference to the Form 10-Q filed with the SEC on August 15, 2016).
- 4.13 Form of Class L Warrant (Incorporated by reference to the Form 8-K filed with the SEC on August 25, 2016).
- 5.1\* Opinion of Smith, Gambrell & Russell, LLP.
- 10.1 Amended and Restated 2006 Stock Option Incentive Plan of SANUWAVE Health, Inc. (Incorporated by reference to Form 8-K filed with the SEC on November 3, 2010).
- 10.2 Form of Securities Purchase Agreement, by and among the Company and the accredited investors a party thereto, dated March 17, 2014 (Incorporated by reference to the Form 8-K filed with the SEC on March 18, 2014).
- 10.3 Form of Registration Rights Agreement, by and among the Company and the holders a party thereto, dated March 17, 2014 (Incorporated by reference to the Form 8-K filed with the SEC on March 18, 2014).
- 10.4 Form of Subscription Agreement for the 18% Convertible Promissory Notes between the Company and the accredited investors a party thereto (Incorporated by reference to the Form 8-K filed with the SEC on March 18, 2014).
- 10.5 Amendment to certain Promissory Notes that were dated August 1, 2005, by and among the Company, SANUWAVE, Inc. and HealthTronics, Inc., dated June 15, 2015 (Incorporated by reference to the Form 8-K filed with the SEC on June 18, 2015.)
- 10.6 Security Agreement, by and between the Company and HealthTronics, Inc., dated June 15, 2015 (Incorporated by reference to the Form 8-K filed with the SEC on June 18, 2015).
- 10.7 Exchange Agreement dated January 13, 2016 among the Company and the investors listed therein (Incorporated by reference to the Form 8-K filed with the SEC on January 19, 2016).
- 10.8 Escrow Deposit Agreement dated January 25, 2016 among the Company, Newport Coast Securities, Inc. and Signature Bank (Incorporated by reference to the Form S-1/A filed with the SEC on February 3, 2016).
- 10.9 Second amendment to promissory notes entered into as of June 28, 2016 by and among SANUWAVE Health, Inc., SANUWAVE, Inc. and HealthTronics, Inc. (Incorporated by reference to the Form 10-Q filed with the SEC on August 15, 2016).



10.10 Form of Securities Purchase Agreement, by and between the Company and the accredited investors party thereto, dated August 24, 2016 (Incorporated by reference to the Form 8-K filed with the SEC on August 25, 2016).

10.11 Form of Registration Rights Agreement, by and between the Company and the accredited investors party thereto, dated August 24, 2016 (Incorporated by reference to the Form 8-K filed with the SEC on August 25, 2016).

21.1 List of subsidiaries (incorporated by reference to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2015)

23.1\* Consent of Cherry Bekaert, LLP, independent registered public accountants.

23.2\* Consent of BDO USA, LLP, independent registered public accountants.

23.3\* Consent of Smith, Gambrell & Russell, LLP (included in its opinion filed as Exhibit 5.1).

24.1\* Power of Attorney (set forth on the signature page of this registration statement).

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\* Filed herewith

#### ITEM 17. Undertakings

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the Registration Statement;

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and



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(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate

jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

(d) The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purposes of determining liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Suwanee, State of Georgia, on February 13, 2018.

SANUWAVE Health, Inc.

By: /s/ Kevin A. Richardson, II  
 Name: Kevin A. Richardson, II  
 Title: Acting Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Kevin A. Richardson, II, as his or her true and lawful attorney-in-fact, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities to sign any and all amendments (including post-effective amendments) to this registration statement and to sign a registration statement pursuant to Section 462(b) of the Securities Act of 1933, and to file the same with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated:

Signatures	Capacity	Date
By: /s/ Kevin A. Richardson, II Name: Kevin A. Richardson, II	Director and Acting Chief Executive Officer (principal executive officer)	February 13, 2018
By: /s/ Lisa Sundstrom Name: Lisa Sundstrom	Chief Financial Officer (principal financial and accounting officer)	February 13, 2018
By: /s/ John F. Nemelka Name: John F. Nemelka	Director	February 13, 2018
By: /s/ Alan L. Rubino Name: Alan L. Rubino	Director	February 13, 2018
By: /s/ A. Michael Stolarski Name: A. Michael Stolarski	Director	February 13, 2018

