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ENDRA Life Sciences Inc.

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ENDRA Life Sciences Inc.

1,680,000 Units

This is our initial public offering. We are offering 1,680,000 units, each consisting of one share of our common stock and a warrant to purchase one share of common stock, which numbers reflect the one for 3.50 reverse stock split described in this prospectus (the "reverse stock split").

The warrants will have an exercise price equal to 125% of the initial public offering price per unit set forth on the cover page of this prospectus and will expire on the fifth anniversary of the original issuance date. The shares of our common stock and warrants will trade together as units during the first 60 days following the date of this prospectus and, thereafter, the units will automatically separate and the common stock and warrants will trade separately, unless National Securities Corporation determines that an earlier separation date is acceptable.

Prior to this offering, there has been no public market for our securities. We have received approval to list on the Nasdaq Capital Market our units under the symbol "NDRAU" and our common stock and warrants under the symbols "NDRA" and "NDRAW," respectively. The initial public offering price is $5.00 per unit. Concurrently with the pricing of this offering, we effected the reverse stock split.

We are an "emerging growth company" as that term is used in the Jumpstart Our Business Startups Act of 2012 and, as such, have elected to comply with certain reduced public company reporting requirements for this prospectus and future filings. See "Prospectus Summary – Implications of Being an Emerging Growth Company."

Investing in our securities involves a high degree of risk. See "Risk Factors" beginning on page 8 for a discussion of information that should be considered in connection with an investment in our securities.

	Per Unit	Total
Public offering price	$ 5.00	$ 8,400,000
Underwriting discount[(1)]	$ 0.40	$ 672,000
Proceeds, before expenses, to us[(2)]	$ 4.60	$ 7,728,000

(1) We have also granted warrants to the underwriters in connection with this offering and agreed to reimburse the underwriters for certain expenses incurred by them. See "Underwriting" for a description of the compensation payable by us to the underwriters.

(2) We estimate the total expenses payable by us, excluding the underwriting discount, will be approximately $750,000.

We have granted the underwriters a 45-day option to purchase up to 252,000 additional units to cover over-allotments, if any, provided that in no event may exercise of this option occur after separation of the units occurs.

We have retained National Securities Corporation to act as representative of the several underwriters for this offering. We have agreed to pay the underwriters the compensation set forth herein under the rules of the Financial Industry Regulatory Authority, or FINRA. National Securities Corporation has a conflict of interest in offering our units since affiliates of National Securities Corporation own more than 10% of our outstanding shares. Due to this conflict of interest, Dougherty & Company LLC is acting as a "qualified independent underwriter" in accordance with FINRA Rule 5121. See the section titled "Conflicts of Interest" for more information.

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

The underwriters expect to deliver the units to investors on or about May 12, 2017, subject to customary closing conditions.

National Securities Corporation **Dougherty & Company**

The date of this prospectus is May 8, 2017.

TABLE OF CONTENTS

Unless otherwise stated or the context otherwise requires, the terms "ENDRA," "we," "us," "our" and the "Company" refer to ENDRA Life Sciences Inc., a Delaware corporation.

You should rely only on the information contained in this prospectus and any related free writing prospectus that we may provide to you in connection with this offering. We have not, and the underwriters have not, authorized anyone to provide you with additional or different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the underwriters are not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus is accurate only as of the date on the front cover of this prospectus. Our business, financial condition, results of operations and prospects may have changed since that date.

For investors outside the United States: neither we nor the underwriters have done anything that would permit this offering or possession or distribution of this prospectus or any free writing prospectus we may provide to you in connection with this offering in any jurisdiction where action for that purpose is required, other than in the United States. You are required to inform yourselves about and to observe any restrictions relating to this offering and the distribution of this prospectus and any such free writing prospectus outside of the United States.

MARKET AND INDUSTRY DATA

Unless otherwise indicated, information contained in this prospectus concerning our industry and the markets in which we operate is based on information from independent industry and research organizations, other third-party sources (including industry publications, surveys and forecasts), and management estimates. Management estimates are derived from publicly available information released by independent industry analysts and third-party sources, as well as data from our internal research, and are based on assumptions made by us upon reviewing such data and our knowledge of such industry and markets which we believe to be reasonable. Although we believe the data from these third-party sources is reliable, we have not independently verified any third-party information. In addition, projections, assumptions and estimates of the future performance of the industry in which we operate and our future performance are necessarily subject to uncertainty and risk due to a variety of factors, including those described in "Risk Factors" and "Special Note Regarding Forward-Looking Statements and Other Information Contained In This Prospectus." These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties and by us.

TRADEMARKS

We operate under a number of trademarks, including, among others, "ENDRA" and "TAEUS," all of which are registered under applicable intellectual property laws. This prospectus contains references to our trademarks and service marks and to those belonging to other entities. Solely for convenience, trademarks and trade names referred to in this prospectus may appear without the ® or ™ symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent possible under applicable law, our rights or the rights of the applicable licensor to these trademarks and trade names. We do not intend our use or display of other companies' trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

PROSPECTUS SUMMARY

This summary highlights selected information contained elsewhere in this prospectus and does not contain all of the information that you should consider before investing in our securities. You should carefully read this prospectus and the registration statement of which this prospectus is a part in their entirety before investing in our securities, including the information discussed under "Risk Factors" and our financial statements and notes thereto that appear elsewhere in this prospectus.

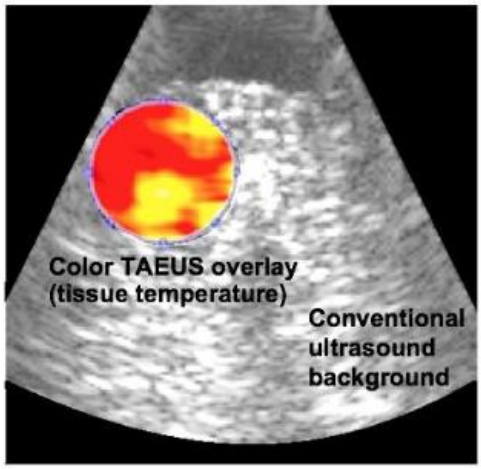
Our Company

We have commercialized an enhanced ultrasound technology for the pre-clinical research market and are leveraging that expertise to develop technology for increasing the capabilities of clinical diagnostic ultrasound, to broaden patient access to the safe diagnosis and treatment of a number of significant medical conditions in circumstances where expensive X-ray computed tomography, or CT, and magnetic resonance imaging, or MRI, technology is unavailable or impractical.

Since 2010, we have marketed and sold our Nexus 128 system, which combines light-based thermoacoustics and ultrasound, to address the imaging needs of researchers studying disease models in pre-clinical applications. Sales of the Nexus 128 system were approximately $1.4 million in 2015 and $515,000 in 2016. We have not yet completed preparation of financial statements for the quarter ending March 31, 2017, but, as described in the section of this prospectus entitled "Management's Discussion and Analysis of Financial Control and Results of Operations," based on preliminary data available to us, we expect to report no revenue and a total net loss of approximately $650,000 during that quarter. Our Nexus 128 system is used in a number of leading global academic research centers, including Stanford University, The University of Michigan, Shanghai Jiao Tong University, and Purdue University. We expect to continue to sell our Nexus 128 system to maintain a base level of revenue, but believe the market potential for our clinical systems is much higher.

Building on our expertise in thermoacoustics, we have developed a next-generation technology platform — Thermo Acoustic Enhanced Ultrasound, or TAEUS — which is intended to enhance the capability of clinical ultrasound technology and support the diagnosis and treatment of a number of significant medical conditions that currently require the use of expensive CT or MRI imaging or where imaging is not practical using existing technology.

Unlike the near-infrared light pulses used in our Nexus 128 system, our TAEUS technology uses radio frequency, or RF, pulses to stimulate tissues, using a small fraction of the energy transmitted into the body during an MRI scan. The use of RF energy allows our TAEUS technology to penetrate deep into tissue, enabling the imaging of human anatomy at depths equivalent to those of conventional ultrasound. The RF pulses are absorbed by tissue and converted into ultrasound signals, which are detected by an external ultrasound receiver and a digital acquisition system that is part of the TAEUS system. The detected ultrasound is processed into images using our proprietary algorithms and overlaid in real time onto conventional gray-scale ultrasound images.
Image below: Real-time ex-vivo bovine tissue temperature analysis overlaid on traditional ultrasound image.



We believe that our TAEUS technology has the potential to add a number of new capabilities to conventional ultrasound and thereby enhance the utility of both existing and new ultrasound systems.

Our TAEUS platform is not intended to replace CT and MRI systems, both of which are versatile imaging technologies with capabilities and uses beyond the focus of our business. However, they are also expensive, with a CT system costing approximately $1 million and an MRI system costing up to $3 million. In addition, and in contrast to ultrasound systems, due to their limited number and the fact that they are usually fixed-in-place at major medical facilities, CT and MRI systems are frequently inaccessible to patients.

We believe that our TAEUS platform can extend the use of ultrasound technology to a number of important applications that either require the use of expensive CT or MRI imaging systems or where imaging is not practical using existing technology. To demonstrate the capabilities of our TAEUS platform, we have conducted various internal ex-vivo laboratory experiments and have also conducted limited internal in-vivo large animal studies. However, we have not yet conducted any human studies and these capabilities are not supported by clinical data that we have gathered in pursuit of obtaining regulatory approvals or that was subject to regulatory oversight and guidance. In our ex-vivo and in-vivo testing, we have demonstrated that the TAEUS platform has the following capabilities and potential clinical applications:

- Tissue Composition: Our TAEUS technology enables ultrasound to distinguish fat from lean tissue. This capability would enable the use of TAEUS-enhanced ultrasound for the early identification, staging and monitoring of Non-Alcoholic Fatty Liver Disease, or NAFLD, which affects an estimated 1.4 billion people worldwide and is a precursor to liver fibrosis, cirrhosis and liver cancer.
- Temperature Monitoring: Our TAEUS technology enables traditional ultrasound to visualize changes in tissue temperature, in real time. This capability would enable the use of TAEUS-enhanced ultrasound to guide thermoablative therapy, which uses heat or cold to remove tissue, such as in the treatment of cardiac atrial fibrillation, or removal of cancerous liver and kidney lesions, with greater accuracy.
- Vascular Imaging: Our TAEUS technology enables ultrasound to view blood vessels from any angle, using only a saline solution contrasting agent, unlike Doppler ultrasound which requires precise viewing angles. This capability would enable the use of TAEUS-enhanced ultrasound to easily identify arterial plaque or malformed vessels.
- Tissue Perfusion: Our TAEUS technology enables ultrasound to image blood flow at the capillary level in a region, organ or tissue. This capability could be used to assist physicians in characterizing microvasculature fluid flows symptomatic of damaged tissue, such as internal bleeding from trauma, or diseased tissue, such as certain cancers.

Sales of ultrasound diagnostic equipment were approximately $4 billion globally in 2014 and are expected to grow at approximately 4.4% annually. There are approximately 800,000 installed systems generating over 400 million annual diagnostic ultrasound procedures globally. Additionally, an estimated 30,000 to 50,000 new and replacement systems are sold into the market each year. These numbers include both portable and cart-based ultrasound systems, and cover all types of diagnostic ultrasound procedures, including systems intended for cardiology, prenatal and abdominal use. We do not intend to address low-cost, portable ultrasound systems and systems focused on applications, such as prenatal care, where we believe our TAEUS technology will not substantially impact patient care. Accordingly, we define our addressable market for one or more of our TAEUS applications at approximately 300,000 cart-based ultrasound systems currently in use throughout the world.

After approval, our TAEUS technology can be added as an accessory to existing ultrasound systems, helping to improve clinical decision-making on the front lines of patient care, without requiring new clinical workflows or large capital investments. We are also developing TAEUS for incorporation into new ultrasound systems, primarily through our collaboration with GE Healthcare, described more fully below. We are not aware of any other ultrasound devices in development that include the anticipated functionality of our planned TAEUS applications.

Based on our design work and our understanding of the ultrasound accessory market, we intend to price our initial NAFLD TAEUS application at a price point approximating one-half of the price of a new cart-based ultrasound system, which should enable purchasers to recoup their investment in less than one year by performing a relatively small number of additional ultrasound procedures. We further believe that clinicians will be attracted to our technology because it will enable them to perform more procedures with their existing ultrasound equipment, thereby retaining more imaging patients in their clinics rather than referring patients out to a regional medical center for a CT or MRI scan.

We expect that the first-generation TAEUS application will be a standalone ultrasound accessory designed to cost-effectively quantify fat in the liver and stage progression of NAFLD, which can only be achieved today with impractical surgical biopsies or MRI scans. Subsequent TAEUS applications are expected to be implemented via a second generation hardware platform that can run multiple clinical software applications that we will offer TAEUS users for a one-time licensing fee – adding ongoing customer value to the TAEUS platform and a growing software revenue stream for ENDRA.

Each of our TAEUS platform applications will require regulatory approvals before we are able to sell or license the application. Based on certain factors, such as the installed base of ultrasound systems, availability of other imaging technologies, such as CT and MRI, economic strength and applicable regulatory requirements, we intend to seek initial approval of our applications for sale in the European Union. In the future, assuming we are able to raise additional capital, we intend to seek further regulatory approvals in the United States and China.

We believe that our NAFLD TAEUS application will qualify for sale in the European Union as a Class IIa medical device. As a result, we will be required to obtain a CE mark for our NAFLD TAEUS application before we can sell the application in the European Union. Existing regulations would not require us to conduct a clinical trial to obtain a CE mark for this application. Nonetheless, for commercial reasons and to support our CE mark application, we plan to conduct a limited (less than 10 person) trial to demonstrate our NAFLD TAEUS application's ability to distinguish fat from lean tissue. Based on our understanding of applicable regulations and consultations with medical device regulatory consulting firms and medical device contract engineering firms, we expect to receive a CE mark for our NAFLD TAEUS application within 12 to 15 months after the completion of this offering. However, this estimate is subject to uncertainty and there can be no assurance that this process will not take longer or be more costly than we expect. While we are seeking a CE mark for our NAFLD TAEUS application, we will also prepare to expand our sales, marketing and customer support capabilities, so that we can commence initial sales of the application in the European Union once we have received this regulatory approval and raised sufficient funds to finance commercialization. Following receipt of such CE mark and placement of initial systems with researchers and universities, we plan to conduct one or more clinical studies to further demonstrate this product's capabilities. As described below in “Use of Proceeds,” we believe the proceeds from this offering will be sufficient for us to be able to complete the process to obtain a CE mark for our NAFLD TAEUS application, to prepare to commercialize this application in the EU and to obtain initial clinical data for this application. However, we will require additional funds to commercialize this application in the European Union and to implement the balance of our business plan thereafter.

After the process of obtaining a CE mark for our NAFLD TAEUS application is complete, we also intend to prepare for submission to the U.S. Food and Drug Administration, or the FDA, an application under the Food, Drug and Cosmetic Act, or the FD&C Act, to sell our NAFLD TAEUS application in the U.S. We anticipate that the application, as well as those for our other TAEUS applications, will be submitted for approval under Section 510(k) of the FD&C Act. In connection with our initial submission to the FDA, we believe we will be required to provide imaging verification and validation testing data, as well as the data from the limited trial we plan to conduct to support our CE mark application. We expect that our initial FDA clearance will allow us to sell the NAFLD TAEUS application in the U.S. with general imaging claims. However, we will need to obtain additional FDA clearances to be able to make diagnostic claims for fatty tissue content determination. Accordingly, to support our commercialization efforts we expect that, following receipt of our initial FDA clearance, we will submit one or more additional applications to the FDA, each of which will need to include additional clinical trial data, so that following receipt of the necessary clearances we may make those diagnostic claims. Based on our understanding of applicable regulations and consultations with medical device regulatory consulting firms and medical device contract engineering firms and assuming we are able to secure additional required capital, we expect to submit our initial FDA application to the FDA approximately fifteen months after the completion of this offering and that the FDA will make a final determination on our application approximately six months after it is submitted. However, these estimates are subject to uncertainty and there can be no assurance that these processes will not take longer or be more costly than we expect.

In April 2016, we entered into a Collaborative Research Agreement with General Electric Company, acting through its GE Healthcare business unit and the GE Global Research Center, or GE Healthcare. Under the terms of the agreement, GE Healthcare has agreedto assist us in our efforts to commercialize our TAEUS technology for use in a fatty liver application by, among other things, providing equipment and technical advice, and facilitating introductions to GE Healthcare clinical ultrasound customers. In return for this assistance, we have agreed to afford GE Healthcare certain rights of first offer with respect to manufacturing and licensing rights for the target application. More specifically, we have agreed that, prior to commercially releasing our NAFLD TAEUS application, we will offer to negotiate an exclusive ultrasound manufacturer relationship with GE Healthcare for a period of at least one year of commercial sales. The commercial sales would involve, within our sole discretion, either our Company commercially selling GE Healthcare ultrasound systems as the exclusive ultrasound system with our TAEUS fatty liver application embedded, or GE Healthcare being the exclusive ultrasound manufacturer to sell ultrasound systems with our TAEUS fatty liver application embedded. The agreement is subject to termination by either party upon not less than 60 days’ notice. On April 21, 2017, we and GE Healthcare entered into an amendment to our agreement, extending its term by one year to April 22, 2018.

Risks Related to Our Business

An investment in our securities involves a high degree of risk. You should carefully consider the risks summarized below. These risks are discussed more fully in the "Risk Factors" section of this prospectus immediately following this prospectus summary. These risks include, but are not limited to, the following:

- We have a history of operating losses, and we may never achieve or maintain profitability.
- Our limited operating history makes it difficult to evaluate our current business, predict our future results or forecast our financial performance and growth.
- Our efforts may never result in the successful development of commercial applications based on our TAEUS technology.
- If we fail to obtain and maintain necessary regulatory clearances or approvals for our TAEUS applications, or if clearances or approvals for future applications and indications are delayed or not issued, our commercial operations will be harmed.
- We will depend on third parties to design, manufacture and seek regulatory approval of our TAEUS applications. If any third party fails to successfully design, manufacture and gain regulatory approval of our TAEUS applications, our business will be materially harmed.
- Competition in the medical imaging market is intense and we may be unable to successfully compete.
- If we are unable to secure additional financing on favorable terms, or at all, to meet our future capital needs, we will be unable to complete fully our current business plan.
- We intend to market our TAEUS applications, if approved, globally, in which case we will be subject to the risks of doing business outside of the United States.
- If we are unable to protect our intellectual property, then our financial condition, results of operations and the value of our technology and products could be adversely affected.
- There are no established public trading markets for the securities being offered in this offering and active trading markets for these securities may not develop.

Reverse Stock Split

In March 2017, our board of directors and stockholders holding a majority of the outstanding shares of our common stock approved resolutions authorizing our board of directors to effect a reverse split of our common stock at certain exchange ratios ranging from 1:2.50 to 1:4.00, with our board of directors retaining the discretion as to whether to implement the reverse stock split and which exchange ratio to implement. Concurrently with the pricing of this offering, we effected the reverse stock split at a ratio of 1 share for each 3.50 shares.

Except as otherwise indicated and except in our financial statements, all information regarding share amounts of common stock and prices per share of common stock contained in this prospectus reflect the consummation of the reverse stock split that was effected concurrently with the pricing of this offering.

Implications of Being an Emerging Growth Company

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, and, for as long as we continue to be an "emerging growth company," we may choose to take advantage of exemptions from various reporting requirements applicable to other public companies but not to "emerging growth companies," including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We could be an "emerging growth company" for up to five years, or until the earliest of (i) the last day of the first fiscal year in which our annual gross revenues exceed $1 billion, (ii) the date that we become a "large accelerated filer" as defined in Rule 12b-2 under the Securities Exchange Act of 1934, as amended, which would occur if the market value of our common stock that is held by non-affiliates exceeds $700 million as of the last business day of our most recently completed second fiscal quarter, or (iii) the date on which we have issued more than $1 billion in non-convertible debt during the preceding three-year period. We are choosing to "opt out" of the extended transition periods available under the JOBS Act for complying with new or revised accounting standards, but intend to take advantage of the other exemptions discussed above.

We are also currently considered a “smaller reporting company,” which generally means that we have a public float of less than $75 million and had annual revenues of less than $50 million during the most recently completed fiscal year. If we are still considered a “smaller reporting company” at such time as we cease to be an “emerging growth company,” we will be subject to increased disclosure requirements. However, the disclosure requirements will still be less than they would be if we were not considered either an “emerging growth company” or a “smaller reporting company.” Specifically, similar to emerging growth companies”, “smaller reporting companies” are able to provide simplified executive compensation disclosures in their filings; are exempt from the provisions of Section 404(b) of the Sarbanes-Oxley Act requiring that independent registered public accounting firms provide an attestation report on the effectiveness of internal control over financial reporting; and have certain other decreased disclosure obligations in their Securities and Exchange Commission filings, including, among other things, being required to provide only two years of audited financial statements in annual reports.

Corporate Information

We were incorporated in Delaware in July 2007. Our corporate headquarters is located at 3600 Green Court, Suite 350, Ann Arbor, Michigan 48105-1570. Our website can be accessed at www.endrainc.com. The information contained on, or that may be obtained from, our website is not, and shall not be deemed to be, a part of this prospectus.

THE OFFERING	
Units offered by us	1,680,000 units (or 1,932,000 units if the underwriters exercise their option to purchase additional units in full), each consisting of one share of common stock and a warrant to purchase one share of common stock.
Warrants offered by us	Up to 1,680,000 shares of our common stock issuable upon exercise of the warrants issued in this offering (or up to 1,932,000 shares of our common stock if the underwriters exercise their option to purchase additional units in full). The warrants will have an exercise price equal to 125% of the initial public offering price per unit set forth on the cover of this prospectus and will expire on the fifth anniversary of the original issuance date. Each warrant will be exercisable commencing upon separation of the unit of which it was a part.
Separation of shares of common stock and warrants included in the units offered hereby	The units will begin trading on, or promptly after, the date of this prospectus. The units will separate at the earlier of (i) the first trading day following the 60th day after the date of this prospectus, or (ii) such earlier date as may be determined by National Securities Corporation.
Common stock outstanding after this offering	3,640,267 shares (or 3,892,267 shares if the underwriters exercise their option to purchase additional units in full), and a total of 5,320,267 shares of our common stock outstanding if the warrants issued in this offering are exercised in full (or 5,824,267 shares if the underwriters exercise their option to purchase additional units in full and the warrants included in such units exercised). (1)(2)
Over-allotment option	We have granted the underwriters a 45-day option to purchase up to 252,000 additional units to cover over-allotments, if any, provided that in no event may exercise of this option occur after separation of the units occurs.
Use of proceeds	We intend to use the net proceeds from this offering to fund the development and regulatory approval and to prepare for the commercialization of our Non-Alcoholic Fatty Liver Disease, or NAFLD, TAEUS application in the European Union for working capital and other general corporate purposes. However, we will require additional funds to commercialize this application in the European Union and to implement the balance of our business plan thereafter. See “Use of Proceeds” for additional information.
Risk factors	See the section entitled “Risk Factors” and other information included in this prospectus for a discussion of factors you should carefully consider before deciding to invest in our securities.
Proposed Nasdaq Capital Market symbol	We have received approval for listing on the Nasdaq Capital Market our units under the symbol “NDRAU” and our common stock and warrants under the symbols "NDRA" and “NDRAW,” respectively.
Conflicts of interest	Because certain affiliates of National Securities Corporation, an underwriter of this offering, beneficially own more than 10% of our outstanding common stock, National Securities Corporation is deemed to have a “conflict of interest” within the meaning of FINRA Rule 5121. Accordingly, this offering is being made in compliance with the applicable provisions of FINRA Rule 5121. FINRA Rule 5121 prohibits National Securities Corporation from making sales to discretionary accounts without the prior written approval of the account holder and requires that a “qualified independent underwriter,” as defined in FINRA Rule 5121, participate in the preparation of the registration statement and exercise its usual standards of due diligence with respect thereto. Dougherty & Company LLC is acting as a “qualified independent underwriter” for this offering. See the section titled “Conflicts of Interest” for more information.

(1) The number of shares of our common stock to be outstanding after this offering is based on 1,960,267 shares of common stock outstanding as of March 17, 2017, which includes the conversion of the outstanding principal and accrued interest on our outstanding convertible promissory notes at March 17, 2017 into an aggregate of 1,236,894 shares of our common stock at a conversion price of $1.40 per share immediately prior to the completion of this offering, as elected by the holders of a majority of the outstanding principal amount of such convertible promissory notes, and excludes the following:

- 152,812 shares of common stock issuable upon the exercise of outstanding warrants, at a weighted average exercise price of $ 18.94 per share;
- 151,881 shares of our common stock issuable upon the exercise of outstanding stock options issued pursuant to our 2016 Omnibus Incentive Plan, or our Incentive Plan, at a weighted average exercise price of $10.01 per share and an estimated 639,582 shares of our common stock issuable upon the exercise of stock options expected to be granted to our directors and certain of our officers upon the completion of this offering at an exercise price equal to the public offering price per unit set forth on the cover of this prospectus;
- an estimated 439,447 shares of our common stock that will be reserved for future issuance under our Incentive Plan;
- up to 1,680,000 shares of our common stock that may be issued under warrants to be issued to the public in this offering; and
- up to 134,400 shares of our common stock issuable upon exercise of the underwriters' warrants issued to the underwriters in the offering.

(2) Except as otherwise indicated herein, all information in this prospectus assumes or gives effect to:

- the reverse stock split;
- the conversion of the outstanding principal and accrued interest on our outstanding convertible promissory notes as of March 17, 2017 into an aggregate of 1,236,894 shares of our common stock at a conversion price of $1.40 per share immediately prior to the completion of this offering, as elected by the holders of a majority of the outstanding principal amount of such convertible promissory notes;
- the adoption of our Fourth Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws in connection with the consummation of this offering; and
- no exercise of the underwriters' over-allotment option.

SUMMARY SELECTED FINANCIAL DATA

The following tables set forth a summary of our historical financial data at, and for the period ended on, the dates indicated. We have derived the statements of operations data for the years ended December 31, 2016 and 2015 from our audited financial statements included in this prospectus. Our historical results for any prior period are not necessarily indicative of results to be expected in any other period or for the year ending December 31, 2017. You should read this data together with our financial statements and related notes appearing elsewhere in this prospectus and the section of this prospectus entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Income Statement Data

	December 31, 2015	December 31, 2016
Revenue	$ 1,410,065	$ 515,582
Gross Profit	$ 743,831	$ 279,704
Operating Expenses	$ 2,312,402	$ 2,071,462
Other Expenses	$ (710,634)	$ (983,610)
Net Loss	$ (2,279,204)	$ (2,775,369)
Basic and diluted net loss per common share	$ (0.98)	$ (1.10)
Weighted average shares outstanding, basic and diluted	2,320,045	2,531,626
Pro forma net loss per share, basic and diluted (unaudited)(1)	$ (3.44)	$ (3.84)
Pro forma weighted average shares outstanding (unaudited)(1)	662,870	723,322

Balance Sheet Data

	As of December 31, 2015	As of December 31, 2016
Assets		
Current Assets	$ 126,618	$ 195,594
Fixed Assets, net	$ 360,104	$ 295,168
Total Assets	$ 486,722	$ 490,761
Liabilities and Stockholders' Equity		
Current Liabilities	$ 236,421	$ 1,384,528
Stockholders' Equity/(Deficit)	$ 250,300	$ (893,767)
Total Liabilities and Stockholders' Equity	$ 486,722	$ 490,761

Statements of Cash Flows Data

	Year Ended December 31, 2015	Year Ended December 31, 2016
Cash Flows from Operating Activities	$ (842,727)	$ (1,315,623)
Cash Flows from Investing Activities	$ (133,811)	$ -
Cash Flows from Financing Activities	$ 839,224	$ 1,441,448
Cash, end of period	$ 19,128	$ 144,953

(1) The number of weighted average common shares used in computing pro forma net loss per share gives effect to the contemplated reverse stock split at a ratio of 1 share for each 3.5 shares that was effected concurrently with the pricing of this offering.

RISK FACTORS

An investment in our securities involves a high degree of risk. You should carefully consider the following information about these risks, together with the other information appearing elsewhere in this prospectus, before deciding to invest in our securities.
If any of the events described in the following risk factors actually occurs, or if additional risks and uncertainties that are not presently known to us or that we currently deem immaterial later materialize, then our business, prospects, results of operations and financial condition could be materially adversely affected. In that event, the trading price of our securities could decline, and you may lose all or part of your investment in our securities. The risks discussed below include forward-looking statements, and our actual results may differ substantially from those discussed in these forward-looking statements. See "Special Note Regarding Forward-Looking Statements and Other Information Contained in this Prospectus."

Risks Related to Our Business

We have a history of operating losses, and we may never achieve or maintain profitability.

We have a limited operating history upon which investors may evaluate our prospects. We have only generated limited revenues to date and have a history of losses from operations. As of December 31, 2016, we had an accumulated deficit of approximately $12,518,473. Even following the sale of units in this offering, we will require additional capital to complete the commercialization of our planned TAEUS applications and to meet our growth and profitability targets. We expect to expend significant resources on hiring of personnel, payroll and benefits, continued scientific and potential product research and development, potential product testing and pre-clinical and clinical investigations, intellectual property development and prosecution, marketing and promotion, capital expenditures, working capital, general and administrative expenses, and fees and expenses associated with this offering. We also expect to incur costs and expenses related to consulting, laboratory development, hiring of scientists and other operational personnel, and expenses associated with the development of relationships with strategic partners.

Our Thermo Acoustic Enhanced Ultrasound, or TAEUS, technology is still in development and we do not have any applications for our TAEUS technology approved for sale. Applications for our TAEUS technology may never be approved, generate significant revenue or become commercially viable. Our ability to generate significant revenues and, ultimately, achieve profitability will depend on whether we can obtain additional capital when we need it, complete the development of our technology, receive required regulatory approvals for our TAEUS applications and find customers who will purchase our future products or strategic partners that will incorporate our technology into their products. Even if we develop commercially viable applications for our TAEUS technology, which may include licensing, we may never recover our research and development expenses and we may never be able to produce material revenues or operate on a profitable basis.

Our efforts may never result in the successful development of commercial applications based on our TAEUS technology.

Due to the limited tissue penetration capability of light-based thermoacoustic technology, we believe that there is a limited clinical market for our current Nexus 128 product, which is focused on laboratory specimen analysis. As a result, we are currently focused on the development of products based on our TAEUS technology. We have not yet completed the development of any applications based on such technology. Our research and development efforts remain subject to all of the risks associated with the development of new products based on emerging technologies, including, without limitation, unanticipated technical or other problems, the inability to develop a product that may be sold at an acceptable price point and the possible insufficiency of funds needed in order to complete development of these products. Technical problems may result in delays and cause us to incur additional expenses that would increase our losses. If we cannot complete, or if we experience significant delays in developing applications based on, our TAEUS technology, particularly after incurring significant expenditures, our business may fail.

Our success is substantially dependent on the success of applications for our TAEUS platform.

To date we have generated only limited sales of our existing Nexus 128 product and our ability to generate meaningful revenues in the future will depend on the successful development and commercialization of our TAEUS platform applications. The commercial success of our TAEUS platform applications and our ability to generate revenues will depend on many factors, including the following:

- our successful development of applications for our TAEUS technology, such as those we intend to pursue for the diagnosis of Non-Alcohol Fatty Liver Disease, or NAFLD, and the monitoring of thermal ablation surgery, and the acceptance in the marketplace by physicians and patients of such applications;
- the successful design and manufacturing of a device or devices which enable the use of our TAEUS technology by physicians on their patients;
- receipt of necessary regulatory approvals;
- sufficient coverage or reimbursement by third-party payors;
- our ability to successfully market our products;
- our ability to demonstrate that our TAEUS applications have advantages over competing products and procedures;
- the amount and nature of competition from competing or alternative imaging products; and
- our ability to establish and maintain commercial manufacturing, distribution and sales force capabilities.

We have limited data regarding the efficacy of our TAEUS platform applications. If our applications do not perform in accordance with our expectations, we are unlikely to successfully commercialize our applications, even if they receive regulatory approval.

Our success depends in large part on the medical and third-party payor community's acceptance of our TAEUS applications. As a result, even if we receive regulatory approval for our applications, we believe that we will need to obtain additional clinical data from users of our applications to persuade medical professions to use our applications. We may conduct post-approval clinical testing to obtain such additional data. Clinical testing is expensive, can take a significant amount of time to complete and can have uncertain outcomes. We have not yet conducted any clinical studies and there can be no assurance that the results of any such studies will be positive. Our failure to conduct successful clinical studies could have a material, adverse impact on our business.

Our limited operating history makes it difficult to evaluate our business, predict our future results or forecast our financial performance and growth.

We were incorporated in 2007 and began commercializing our initial pre-clinical Nexus 128 products in 2010. Our limited operating history makes it difficult to evaluate our business, predict our future results or forecast our financial performance and growth. If our assumptions regarding the risks and uncertainties we face, which we use to plan our business, are incorrect or change due to circumstances in our business or our markets, or if we do not address these risks successfully, our operating and financial results could differ materially from our expectations and our business could suffer.

We may not remain commercially viable if there is an inadequate level of reimbursement by governmental programs and other third-party payors.

Medical imaging products are purchased principally by hospitals, physicians and other healthcare providers around the world that typically bill various third-party payors, including governmental programs (*e.g.*, Medicare and Medicaid in the United States), private insurance plans and managed care programs, for the services provided to their patients.

Third-party payors and governments may approve or deny coverage for certain technologies and associated procedures based on independently determined assessment criteria. Reimbursement decisions by payors for these services are based on a wide range of methodologies that may reflect the services' assessed resource costs, clinical outcomes and economic value. These reimbursement methodologies and decisions confer different, and sometimes conflicting, levels of financial risk and incentives to healthcare providers and patients, and these methodologies and decisions are subject to frequent refinements. Third-party payors are also increasingly adjusting reimbursement rates, often downwards, indirectly challenging the prices charged for medical products and services. There can be no assurance that our products will be covered by third-party payors, that adequate reimbursement will be available or, even if payment is available, that third-party payors' coverage policies will not adversely affect our ability to sell our products profitably.

We will depend on third parties to design, manufacture and seek regulatory approval of our TAEUS applications. If any third party fails to successfully design, manufacture and gain regulatory approval of our TAEUS applications, our business will be materially harmed.

We currently intend to outsource the design and manufacturing of applications utilizing our TAEUS technology rather than manufacture our TAEUS applications ourselves. We will have limited control over the efforts and resources that any third-party original equipment manufacturer, or OEM, will devote to developing and manufacturing our TAEUS applications. In addition, we currently expect to depend on OEMs to acquire CE marks for the device or devices that they develop and manufacture which are necessary to permit marketing of those devices in the European Union.

An OEM may not be able to successfully design and manufacture the products it develops based on our TAEUS technology, may not devote sufficient time and resources to support these efforts or may fail in gaining the required regulatory approvals of our TAEUS applications. The failure by an OEM in its efforts to design, manufacture or gain regulatory approval of our TAEUS applications could substantially harm the value of our TAEUS technology, brand and business.

If we are unable to manage the anticipated growth of our business, our future revenues and operating results may be harmed.

Because of our small size, growth in accordance with our business plan, if achieved, will place a significant strain on our financial, technical, operational and management resources. As we expand our activities, there will be additional demands on these resources. The failure to continue to upgrade our technical, administrative, operating and financial control systems or the occurrence of unexpected expansion difficulties, including issues relating to our research and development activities and retention of experienced scientists, managers and technicians, could have a material adverse effect on our business, financial condition and results of operations and our ability to timely execute our business plan. If we are unable to implement these actions in a timely manner, our results may be adversely affected.

Competition in the medical imaging market is intense and we may be unable to successfully compete.

In general, competition in the medical imaging market is very significant and characterized by extensive research and development and rapid technological change. Competitors in this market include very large companies with significantly greater resources than we have. To successfully compete in this market we will need to develop TAEUS applications for particular applications that offer significant advantages over alternative imaging products and procedures for such applications.

Developments by other medical imaging companies of new or improved products, processes or technologies may make our products or proposed products obsolete or less competitive. Alternative medical imaging devices may be more accepted or cost-effective than our products. Competition from these companies for employees with experience in the medical imaging industry could result in higher turnover of our employees. If we are unable to respond to these competitive pressures, we could experience delayed or reduced market acceptance of our products, higher expenses and lower revenue. If we are unable to compete effectively with current or new entrants to these markets, we will be unable to generate sufficient revenue to maintain our business.

For additional information regarding our competition, see the section of this prospectus captioned “Business-Competition.”

Changes in the healthcare industry could result in a reduction in the size of the market for our products or may require us to decrease the selling price for our products, either of which could have a negative impact on our financial performance.

Trends toward managed care, healthcare cost containment, and other changes in government and private sector initiatives in Europe, the United States and China are placing increased emphasis on lowering the cost of medical services, which could adversely affect the demand for or the prices of our products. For example:

- major third-party payors of hospital and non-hospital based healthcare services could revise their payment methodologies and impose stricter standards for reimbursement of imaging procedures charges and/or a lower or more bundled reimbursement;
- there has been a consolidation among healthcare facilities and purchasers of medical devices who prefer to limit the number of suppliers from whom they purchase medical products, and these entities may decide to stop purchasing our products or demand discounts on our prices;
- there is economic pressure to contain healthcare costs in markets throughout the world; and
- there are proposed and existing laws and regulations in international and domestic markets regulating pricing and profitability of companies in the healthcare industry.

These trends could lead to pressure to reduce prices for our products and could cause a decrease in the demand for our products in any given market that could adversely affect our revenue and profitability, which could harm our business.

We have limited selling, marketing and manufacturing resources, which may restrict our success in commercializing our TAEUS technology.

We currently do not have a sales, marketing, customer support or manufacturing team dedicated to our TAEUS clinical applications. To grow our business as planned, we must expand our sales, marketing, customer support and manufacturing capabilities. We must also establish satisfactory arrangements for the manufacture and distribution of our TAEUS applications, which will involve the development of our commercial infrastructure and/or collaborative commercial arrangements and partnerships. We may be unable to attract, retain and manage the specialized workforce and collaborative manufacturing and distribution arrangements necessary to successfully commercialize our products. In addition, developing these functions is time consuming and expensive. We intend to partner with others to assist us with some or all of these functions. However, we may be unable to find appropriate third parties with whom to enter into these arrangements. Furthermore, if we do enter into these arrangements, these third parties may not perform as expected.

If we experience problems in our relationships with our distributors, our ability to sell our products could be limited.

Because we are a small company with limited resources, we expect to depend on distributors to help promote market acceptance and demand for our products. Distributors that are in the business of selling other medical products may not devote a sufficient level of resources and support required to generate awareness of our products and grow or maintain product sales. If our distributors are unwilling or unable to market and sell our products, or if they do not perform to our expectations, we could experience delayed or reduced market acceptance and sales of our products. In addition, disagreements with our distributors or non-performance by these third parties could lead to costly and time-consuming litigation or arbitration and disrupt distribution channels for a period of time and require us to re-establish a distribution channel.

We have and may in the future form or seek additional strategic alliances, collaborations or enter into licensing arrangements, and we may not realize the benefits of such alliances, collaborations or licensing arrangements.

On April 22, 2016, we entered into a Collaborative Research Agreement with GE Healthcare under which GE Healthcare has agreed to support our efforts to commercialize our TAEUS technology for use in an NAFLD application by, among other things, providing equipment and technical advice, and facilitating introductions to GE Healthcare clinical ultrasound customers. This agreement does not commit GE Healthcare to a long-term relationship and it may disengage with us at any time. This agreement has a term of one year and is subject to termination by either party upon not less than 60 days' notice. On April 21, 2017, we and GE Healthcare entered into an amendment to our agreement, extending its term by one year to April 22, 2018.

We intend in the future to form or seek additional strategic alliances, create joint ventures or collaborations or enter into licensing arrangements with third parties that we believe will complement or augment our development and commercialization efforts with respect to our technologies and applications.

Any of these relationships may require us to incur non-recurring and other charges, increase our near- and long-term expenditures, issue securities that dilute our existing stockholders or disrupt our management and business. In addition, we face significant competition in seeking appropriate strategic partners and the negotiation process is time-consuming and complex. If we license technologies or applications, we may not be able to realize the benefit of such transactions. Further, strategic alliances and collaborations are subject to numerous risks, which may include the following:

- collaborators have significant discretion in determining the efforts and resources that they will apply to a collaboration;
- collaborators may not pursue development and commercialization of our technologies and applications or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in their strategic focus due to the acquisition of competitive products, availability of funding, or other external factors, such as a business combination that diverts resources or creates competing priorities;
- collaborators may delay clinical trials, provide insufficient funding for a clinical trial, stop a clinical trial, abandon the development of an application, repeat or conduct new clinical trials, or require a new formulation of an application for clinical testing;
- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our applications and technologies;
- a collaborator with marketing and distribution rights to one or more applications may not commit sufficient resources to their marketing and distribution;
- collaborators may not properly maintain or defend our intellectual property rights or may use our intellectual property or proprietary information in a way that gives rise to actual or threatened litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential liability;
- disputes may arise between us and a collaborator that cause the delay or termination of the research, development or commercialization of our technologies and applications, or that result in costly litigation or arbitration that diverts management attention and resources;
- collaborations may be terminated and, if terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable applications or technologies; and
- collaborators may own or co-own intellectual property covering our products that results from our collaborating with them, and in such cases, we would not have the exclusive right to commercialize such intellectual property.

As a result, if we enter into collaboration agreements and strategic partnerships or license our applications or technologies, we may not be able to realize the benefit of such transactions if we are unable to successfully integrate them with our existing operations and company culture, which could delay our timelines or otherwise adversely affect our business. We also cannot be certain that, following a strategic transaction or license, we will achieve the revenue or specific net income that justifies such transaction. Any delays in entering into new strategic partnership agreements related to our applications could delay the development and commercialization of our technologies and applications in certain geographies or for certain applications, which would harm our business prospects, financial condition and results of operations.

We intend to market our TAEUS applications, if approved, globally, in which case we will be subject to the risks of doing business outside of the United States.

Because we intend to market our TAEUS applications, if approved, globally, our business may be subject to risks associated with doing business globally. Accordingly, our business and financial results in the future could be adversely affected due to a variety of factors, including:

- changes in a specific country's or region's political and cultural climate or economic condition;
- unexpected changes in laws and regulatory requirements in local jurisdictions;
- difficulty of effective enforcement of contractual provisions in local jurisdictions;
- inadequate intellectual property protection in certain countries;
- trade-protection measures, import or export licensing requirements such as Export Administration Regulations promulgated by the United States Department of Commerce and fines, penalties or suspension or revocation of export privileges;
- effects of applicable local tax structures and potentially adverse tax consequences; and
- significant adverse changes in currency exchange rates.

We depend on our senior management team and the loss of one or more key employees or an inability to attract and retain highly skilled employees could harm our business.

Our success largely depends upon the continued services of our executive management team and key employees and the loss of one or more of our executive officers or key employees could harm us and directly impact our financial results. Our employees may terminate their employment with us at any time. Our executive management team has significant experience and knowledge of medical devices and ultrasound systems, and the loss of any team member could impair our ability to design, identify, and develop new intellectual property and new scientific or product ideas. Additionally, if we lose the services of any of these persons, we would likely be forced to expend significant time and money in the pursuit of replacements, which may result in a delay in the implementation of our business plan and plan of operations. We can give no assurance that we could find satisfactory replacements for these individuals on terms that would not be

unduly expensive or burdensome to us.

To execute our growth plan, we must attract and retain highly qualified personnel. Competition for skilled personnel is intense, especially for engineers with high levels of experience in designing and developing medical devices and for sales executives, especially with industry expertise. We may experience difficulty in hiring and retaining employees with appropriate qualifications. Many of the companies with which we compete for experienced personnel have greater resources than we have. In addition, we invest significant time and expense in training our employees, which increases their value to competitors who may seek to recruit them. If we fail to attract new personnel or fail to retain and motivate our current personnel, our business and future growth prospects would be harmed.

Our employees, independent contractors, consultants, commercial partners and vendors may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements.

We are exposed to the risk of fraud, misconduct or other illegal activity by our employees, independent contractors, consultants, commercial partners and vendors. Misconduct by these parties could include intentional, reckless and negligent conduct that fails to: comply with the U.S. Food, Drug and Cosmetics Act, or the FD&C Act, and similar laws of other countries, and rules and regulations of the U.S. Food and Drug Administration, or the FDA, and other similar foreign regulatory bodies; provide true, complete and accurate information to the FDA and other similar foreign regulatory bodies; comply with manufacturing standards we establish; comply with healthcare fraud and abuse laws in the United States and similar foreign fraudulent misconduct laws; or report financial information or data accurately or to disclose unauthorized activities to us. If we obtain European, Chinese or FDA approval of any of our products and begin commercializing those products in Europe, China or the United States, respectively, our potential exposure under such laws will increase significantly, and our costs associated with compliance with such laws are also likely to increase. In particular, the promotion, sales and marketing of healthcare items and services, as well as certain business arrangements in the healthcare industry, are subject to extensive laws designed to prevent fraud, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, structuring and commissions, certain customer incentive programs and other business arrangements generally. It is not always possible to identify and deter misconduct by employees and other parties, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of significant fines or other sanctions.

Misdiagnosis, warranty and other claims initiated against us and product field actions could increase our costs, delay or reduce our sales and damage our reputation, adversely affecting our financial condition.

Our business exposes us to the risk of malpractice, warranty or product liability claims inherent in the sale and support of medical device products, including those based on claims that the use or failure of one of our products resulted in a misdiagnosis or harm to a patient. Such claims may cause financial loss, damage our reputation by raising questions about our products' safety and efficacy, adversely affect regulatory approvals and interfere with our efforts to market our products. Although to date we have not been involved in any medical malpractice or product liability litigation, we may incur significant liability if such litigation were to occur. We may also face adverse publicity resulting from product field actions or regulatory proceedings brought against us. Claims could also be asserted under state consumer protection acts. If we cannot successfully defend ourselves against product liability or related claims, we may incur substantial liabilities or be required to limit distribution of our products. Even a successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in:

- decreased demand for our products;
- injury to our reputation and negative media attention;
- initiation of investigations by regulators;

- costs to defend the related litigation;
- a diversion of management's time and our resources;
- substantial monetary awards to trial participants or patients;
- product recalls, withdrawals or labeling, marketing or promotional restrictions;
- loss of revenue;
- exhaustion of any available insurance and our capital resources;
- the inability to commercialize a product at all or for particular applications; and
- a decline in the price of our securities.

Although we currently maintain liability insurance in amounts we believe are commercially reasonable, any liability we incur may exceed our insurance coverage. Our insurance policies may also have various exclusions, and we may be subject to a claim for which we have no coverage. Liability insurance is expensive and may cease to be available on acceptable terms, if at all. A malpractice, warranty, product liability or other claim or product field action not covered by our insurance or exceeding our coverage could significantly impair our financial condition. In addition, a product field action or a liability claim against us could significantly harm our reputation and make it more difficult to obtain the funding and commercial relationships necessary to maintain our business.

Our internal computer systems, or those used by third-party manufacturers or other contractors or consultants, may fail or suffer security breaches.

Despite the implementation of security measures, our internal computer systems and those of our future manufacturers and other contractors and consultants are vulnerable to damage from computer viruses and unauthorized access. Although to our knowledge we have not experienced any such material system failure or security breach to date, if such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our development programs and our business operations. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability and the further development and commercialization of our products could be delayed.

Unfavorable economic conditions may have an adverse impact on our business.

Unfavorable changes in economic conditions, including inflation, recession, or other changes in economic conditions, may result in lower consumer healthcare spending as well as physician and hospital spending and availability of credit. If demand for medical devices or budgets for capital improvements decline, our revenue could be adversely affected. Additionally, if our suppliers face challenges in obtaining credit, in selling their products or otherwise in operating their businesses, they may become unable to continue to offer the materials we use to manufacture our products, which could result in sales disruption.

We may face significant challenges if global economic conditions remain unstable or worsen, including reduced demand for our products and services, increased order cancellations, longer sales cycles and slower adoption of new technologies; increased difficulty in collecting accounts receivable and increased risk of excess and obsolete inventories; increased price competition in our served markets; increased prices in components as a result of higher commodities prices; supply chain interruptions, which could disrupt our ability to produce our products; and increased risk of impairment of investments, goodwill and intangible and long-lived assets.

The United Kingdom's vote to leave the European Union will have uncertain effects and could adversely affect us.

The United Kingdom held a referendum on June 23, 2016 in which a majority of voters voted to exit the European Union, commonly referred to as "Brexit". Negotiations are expected to commence to determine the future terms of the United Kingdom's relationship with the European Union, including, among other things, the terms of trade between the United Kingdom and the European Union. The effects of Brexit will depend on any agreements the United Kingdom makes to retain access to E.U. markets either during a transitional period or more permanently. Brexit could adversely affect European and worldwide economic and market conditions and could contribute to instability in global financial and foreign exchange markets, including volatility in the value of the Sterling and Euro. In addition, Brexit could lead to legal uncertainty and potentially divergent national laws and regulations as the United Kingdom determines which E.U. laws to replace or replicate. Any of these effects of Brexit, and others we cannot anticipate, could adversely affect our business, results of operations, financial condition and cash flows.

Risks Related to Intellectual Property and Other Legal Matters

If we are unable to protect our intellectual property, then our financial condition, results of operations and the value of our technology and products could be adversely affected.

Much of our value arises out of our proprietary technology and intellectual property for the design, manufacture and use of medical imaging systems, including development of our TAEUS applications. We rely on patent, copyright, trade secret and trademark laws to protect our proprietary technology and limit the ability of others to compete with us using the same or similar technology. Third parties may infringe or misappropriate our intellectual property, which could harm our business.

We currently maintain a patent portfolio consisting of one current granted patent and twelve pending patent applications in the United States and foreign jurisdictions relating to our technology. In addition, we currently license eight granted patents and three pending patent applications in the United States and foreign jurisdictions. We or our licensor may fail to maintain these patents, may determine not to pursue litigation against entities that are infringing upon these patents, or may pursue such enforcement less aggressively than we ordinarily would.

Policing unauthorized use of our intellectual property is difficult, costly and time-intensive. We may fail to stop or prevent misappropriation of our technology, particularly in countries where the laws may not protect our proprietary rights to the same extent as do the laws of the United States. Proceedings to enforce our patent and other intellectual property rights in non-U.S. jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business. If we cannot prevent other companies from using our proprietary technology or if our patents are found invalid or otherwise unenforceable, we may be unable to compete effectively against other manufacturers of ultrasound systems, which could decrease our market share. In addition, the breach of a patent licensing agreement by us may result in termination of a patent license.

If we are unable to protect the confidentiality of our proprietary information and know-how, the value of our technology and products could be adversely affected.

In addition to our patent activities, we rely upon, among other things, unpatented proprietary technology, processes, trade secrets and know-how. Any involuntary disclosure to or misappropriation by third parties of our confidential or proprietary information could enable competitors to duplicate or surpass our technological achievements, potentially eroding our competitive position in our market. We seek to protect confidential or proprietary information in part by confidentiality agreements with our employees, consultants and third parties. While we require all of our employees, consultants, advisors and any third parties who have access to our proprietary know-how, information and technology to enter into confidentiality agreements, we cannot be certain that this know-how, information and technology will not be disclosed or that competitors will not otherwise gain access to our trade secrets or independently develop substantially equivalent information and techniques. These agreements may be terminated or breached, and we may not have adequate remedies for any such termination or breach. Furthermore, these agreements may not provide meaningful protection for our trade secrets and know-how in the event of unauthorized use or disclosure. To the extent that any of our staff was previously employed by other pharmaceutical, medical technology or biotechnology companies, those employers may allege violations of trade secrets and other similar claims in relation to their former employee's therapeutic development activities for us.

We may in the future be a party to intellectual property litigation or administrative proceedings that could be costly and could interfere with our ability to sell our TAEUS applications.

The medical device industry has been characterized by extensive litigation regarding patents, trademarks, trade secrets, and other intellectual property rights, and companies in the industry have used intellectual property litigation to gain a competitive advantage. It is possible that U.S. and foreign patents and pending patent applications or trademarks controlled by third parties may be alleged to cover our products, or that we may be accused of misappropriating third parties' trade secrets. Other medical imaging market participants, many of which have substantially greater resources and have made substantial investments in patent portfolios, trade secrets, trademarks, and competing technologies, may have applied for or obtained or may in the future apply for or obtain, patents or trademarks that will prevent, limit or otherwise interfere with our ability to make, use, sell and/or export our products or to use product names. We may become a party to patent or trademark infringement or trade secret claims and litigation as a result of these and other third party intellectual property rights being asserted against us. The defense and prosecution of these matters are both costly and time consuming. Vendors from whom we purchase hardware or software may not indemnify us in the event that such hardware or software is accused of infringing a third party's patent or trademark or of misappropriating a third party's trade secret.

Further, if such patents, trademarks, or trade secrets are successfully asserted against us, this may harm our business and result in injunctions preventing us from selling our products, license fees, damages and the payment of attorney fees and court costs. In addition, if we are found to willfully infringe third-party patents or trademarks or to have misappropriated trade secrets, we could be required to pay treble damages in addition to other penalties. Although patent, trademark, trade secret, and other intellectual property disputes in the medical device area have often been settled through licensing or similar arrangements, costs associated with such arrangements may be substantial and could include ongoing royalties. We may be unable to obtain necessary licenses on satisfactory terms, if at all. If we do not obtain necessary licenses, we may not be able to redesign our TAEUS applications to avoid infringement.

Similarly, interference or derivation proceedings provoked by third parties or brought by the U.S. Patent and Trademark Office, or USPTO, may be necessary to determine the priority of inventions or other matters of inventorship with respect to our patents or patent applications. We may also become involved in other proceedings, such as re-examination, inter partes review, or opposition proceedings, before the USPTO or other jurisdictional body relating to our intellectual property rights or the intellectual property rights of others. Adverse determinations in a judicial or administrative proceeding or failure to obtain necessary licenses could prevent us from manufacturing and selling our TAEUS applications or using product names, which would have a significant adverse impact on our business.

Additionally, we may need to commence proceedings against others to enforce our patents or trademarks, to protect our trade secrets or know-how, or to determine the enforceability, scope and validity of the proprietary rights of others. These proceedings would result in substantial expense to us and significant diversion of effort by our technical and management personnel. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded, if any, may not be commercially meaningful. We may not be able to stop a competitor from marketing and selling products that are the same or similar to our products or from using product names that are the same or similar to our product names, and our business may be harmed as a result.

Intellectual property rights may not provide adequate protection, which may permit third parties to compete against us more effectively.

In order to remain competitive, we must develop and maintain protection of the proprietary aspects of our technologies. We rely on a combination of patents, copyrights, trademarks, trade secret laws and confidentiality and invention assignment agreements to protect our intellectual property rights. Any patents issued to us may be challenged by third parties as being invalid, or third parties may independently develop similar or competing technology that avoids our patents. Should such challenges be successful, competitors might be able to market products and use manufacturing processes that are substantially similar to ours. We may not be able to prevent the unauthorized disclosure or use of our technical knowledge or other trade secrets by consultants, vendors or former or current employees, despite the existence generally of confidentiality agreements and other contractual restrictions. Monitoring unauthorized use and disclosure of our intellectual property is difficult, and we do not know whether the steps we have taken to protect our intellectual property will be adequate. In addition, the laws of many foreign countries will not protect our intellectual property rights to the same extent as the laws of the United States. Consequently, we may be unable to prevent our proprietary technology from being exploited abroad, which could affect our ability to expand to international markets or require costly efforts to protect our technology. To the extent our intellectual property protection is incomplete, we are exposed to a greater risk of direct competition. In addition, competitors could purchase our products and attempt to replicate some or all of the competitive advantages we derive from our development efforts or design around our protected technology. Our failure to secure, protect and enforce our intellectual property rights could substantially harm the value of our TAEUS platform, brand and business.

Risks Related to Government Regulation

Failure to comply with laws and regulations could harm our business.

Our business is or in the future may be subject to regulation by various federal, state, local and foreign governmental agencies, including agencies responsible for monitoring and enforcing employment and labor laws, workplace safety, environmental laws, consumer protection laws, anti-bribery laws, import/export controls, securities laws and tax laws and regulations. In certain jurisdictions, these regulatory requirements may be more stringent than those in the United States. Noncompliance with applicable regulations or requirements could subject us to investigations, sanctions, mandatory recalls, enforcement actions, adverse publicity, disgorgement of profits, fines, damages, civil and criminal penalties or injunctions and administrative actions. If any governmental sanctions, fines or penalties are imposed, or if we do not prevail in any possible civil or criminal litigation, our business, operating results and financial condition could be harmed. In addition, responding to any action will likely result in a significant diversion of management's attention and our resources and substantial costs. Enforcement actions and sanctions could further harm our business, operating results and financial condition.

If we fail to obtain and maintain necessary regulatory clearances or approvals for our TAEUS applications, or if clearances or approvals for future applications and indications are delayed or not issued, our commercial operations will be harmed.

The medical devices that we manufacture and market are subject to regulation by numerous worldwide regulatory bodies, including the FDA and comparable international regulatory agencies. These agencies require manufacturers of medical devices to comply with applicable laws and regulations governing development, testing, manufacturing, labeling, marketing and distribution of medical devices. Devices are generally subject to varying levels of regulatory control, based on the risk level of the device. Governmental regulations specific to medical devices are wide-ranging and govern, among other things:

- product design, development and manufacture;
- laboratory, pre-clinical and clinical testing, labeling, packaging storage and distribution;
- premarketing clearance or approval;
- record keeping;
- product marketing, promotion and advertising, sales and distribution; and
- post-marketing surveillance, including reporting of deaths or serious injuries and recalls and correction and removals.

In the European Union, we will be required to comply with applicable medical device directives (including the Medical Devices Directive and the Active Implantable Medical Devices Directive) and obtain CE mark certification in order to market medical devices. The CE mark is applied following approval from an independent notified body or declaration of conformity. It is an international symbol of adherence to quality assurance standards and compliance with applicable European Medical Devices Directives. We believe that our TAEUS applications will qualify for sale in the European Union as Class IIa medical devices. Existing regulations do not require clinical trials to obtain CE marks for Class IIa medical devices. However, in 2012 the European Commission proposed a new regulatory scheme that, if implemented, will impose significant additional obligations on medical device companies. Expected changes include stricter requirements for clinical evidence and pre-market assessment of safety and performance, new classifications to indicate risk levels, requirements for third party testing by government accredited groups for some types of medical devices, and tightened and streamlined quality management system assessment procedures. It is anticipated that this new regulatory scheme may be implemented prior to receipt of the CE mark for our NAFLD TAEUS application but we believe that applicable transition rules should allow us to avoid their application in that case. However, such new rules could impose additional requirements, such as a requirement to conduct clinical trials, on future CE mark applications we make.

We are also required to comply with the regulations of each other country where we commercialize products, such as the requirement that we obtain approval from the FDA and the China Food and Drug Administration before we can launch new products in the United States and China, respectively.

International sales of medical devices manufactured in the United States that are not approved by the FDA for use in the United States, or that are banned or deviate from lawful performance standards, are subject to FDA export requirements. Exported devices are subject to the regulatory requirements of each country to which the device is exported. Frequently, regulatory approval may first be obtained in a foreign country prior to application in the United States due to differing regulatory requirements; however, other countries, such as China for example, require approval in the country of origin first.

Before a new medical device or a new intended use for an existing product can be marketed in the United States, a company must first submit and receive either 510(k) clearance or premarketing approval, or PMA, from the FDA, unless an exemption applies. The typical duration to receive a 510(k) approval is approximately nine to twelve months from the date of the initial 510(k) submission and the typical duration to receive a PMA approval is approximately two years from the date of submission of the initial PMA application, although there is no guarantee that the timing will not be longer.

We expect all of our products to be classified as Class II medical devices that may be approved by means of a 510(k) clearance. In the past, the 510(k) pathway for product marketing has required only proof of substantial equivalence in technology for a given indication with a previously cleared device. Recently, there has been a trend of the FDA requiring additional clinical work to prove efficacy in addition to technological equivalence and basic safety. Whether clinical data is provided or not, the FDA may decide to reject the substantial equivalence argument we present. If that happens, the device is automatically designated as a Class III device. The device sponsor must then fulfill more rigorous PMA requirements, or can request a risk-based classification determination for the device in accordance with the “de novo” process, which may determine that the new device is of low to moderate risk and that it can be appropriately be regulated as a Class I or II device. Thus, although at this time we do not anticipate that we will be required to do so, it is possible that one or more of our other products may require approval through the 510(K) de novo process or by means of a PMA.

We may not be able to obtain the necessary clearances or approvals or may be unduly delayed in doing so, which could harm our business. Furthermore, even if we are granted regulatory clearances or approvals, they may include significant limitations on the indicated uses for the product, which may limit the market for the product. Therefore, even if we believe we have successfully developed our TAEUS technology, we may not be permitted to market TAEUS applications in the United States if we do not obtain FDA regulatory clearance to market such applications. Delays in obtaining clearance or approval could increase our costs and harm our revenues and growth.

In addition, we are required to timely file various reports with the FDA, including reports required by the medical device reporting regulations that require us to report to certain regulatory authorities if our devices may have caused or contributed to a death or serious injury or malfunctioned in a way that would likely cause or contribute to a death or serious injury if the malfunction were to recur. If these reports are not filed timely, regulators may impose sanctions and sales of our products may suffer, and we may be subject to product liability or regulatory enforcement actions, all of which could harm our business.

If we initiate a correction or removal for one of our devices to reduce a risk to health posed by the device, we would be required to submit a publically available Correction and Removal report to the FDA and, in many cases, similar reports to other regulatory agencies. This report could be classified by the FDA as a device recall which could lead to increased scrutiny by the FDA, other international regulatory agencies and our customers regarding the quality and safety of our devices. Furthermore, the submission of these reports has been and could be used by competitors against us in competitive situations and cause customers to delay purchase decisions or cancel orders and would harm our reputation.

The FDA and the Federal Trade Commission, or FTC, also regulate the advertising and promotion of our products to ensure that the claims we make are consistent with our regulatory clearances, that there are adequate and reasonable data to substantiate the claims and that our promotional labeling and advertising is neither false nor misleading in any respect. If the FDA or FTC determines that any of our advertising or promotional claims are misleading, not substantiated or not permissible, we may be subject to enforcement actions, including warning letters, and we may be required to revise our promotional claims and make other corrections or restitutions.

The FDA and state authorities have broad enforcement powers. Our failure to comply with applicable regulatory requirements could result in enforcement action by the FDA or state agencies, which may include any of the following sanctions:

- adverse publicity, warning letters, fines, injunctions, consent decrees and civil penalties;
- repair, replacement, refunds, recall or seizure of our products;
- operating restrictions, partial suspension or total shutdown of production;
- refusing our requests for 510(k) clearance or premarket approval of new products, new intended uses or modifications to existing products;
- withdrawing 510(k) clearance or premarket approvals that have already been granted; and
- criminal prosecution.

If any of these events were to occur, our business and financial condition would be harmed.

Our TAEUS applications may require recertification or new regulatory clearances or premarket approvals and we may be required to recall or cease marketing our TAEUS applications until such recertification or clearances are obtained.

Most countries outside of the United States require that product approvals be recertified on a regular basis, generally every five years. The recertification process requires that we evaluate any device changes and any new regulations or standards relevant to the device and, where needed, conduct appropriate testing to document continued compliance. Where recertification applications are required, they must be approved in order to continue selling our products in those countries.

In the United States, material modifications to the intended use or technological characteristics of our TAEUS applications will require new 510(k) clearances or premarket approvals or require us to recall or cease marketing the modified devices until these clearances or approvals are obtained. Based on FDA published guidelines, the FDA requires device manufacturers to initially make and document a determination of whether or not a modification requires a new approval, supplement or clearance; however, the FDA can review a manufacturer's decision. Any modification to an FDA-cleared device that would significantly affect its safety or efficacy or that would constitute a major change in its intended use would require a new 510(k) clearance or possibly a premarket approval.

We may not be able to obtain recertification or additional 510(k) clearances or premarket approvals for our applications or for modifications to, or additional indications for, our TAEUS technology in a timely fashion, or at all. Delays in obtaining required future governmental approvals would harm our ability to introduce new or enhanced products in a timely manner, which in turn would harm our future growth. If foreign regulatory authorities or the FDA require additional approvals, we may be required to recall and to stop selling or marketing our TAEUS applications, which could harm our operating results and require us to redesign our applications. In these circumstances, we may be subject to significant enforcement actions.

If we or our suppliers fail to comply with the FDA's Quality System Regulations or other regulatory bodies' equivalent regulations, our manufacturing operations could be delayed or shut down and TAEUS platform sales could suffer.

Our manufacturing processes and those of our third party suppliers will be required to comply with the FDA's Quality System Regulations and other regulatory bodies' equivalent regulations, which cover the procedures and documentation of the design, testing, production, control, quality assurance, labeling, packaging, storage and shipping of our TAEUS applications. We will also be subject to similar state requirements and licenses. In addition, we must engage in extensive recordkeeping and reporting and must make available our manufacturing facilities and records for periodic unannounced inspections by governmental agencies, including the FDA, state authorities and comparable agencies in other countries. If we fail such an inspection, our operations could be disrupted and our manufacturing interrupted. Failure to take adequate corrective action in response to an adverse inspection could result in, among other things, a shut-down of our manufacturing operations, significant fines, suspension of marketing clearances and approvals, seizures or recalls of our products, operating restrictions and criminal prosecutions, any of which would cause our business to suffer. Furthermore, our key component suppliers may not currently be or may not continue to be in compliance with applicable regulatory requirements, which may result in manufacturing delays for our product and cause our results of operations to suffer.

Our TAEUS applications may in the future be subject to product recalls that could harm our reputation.

Governmental authorities in Europe, the United States and China have the authority to require the recall of commercialized products in the event of material regulatory deficiencies or defects in design or manufacture. A government-mandated or voluntary recall by us could occur as a result of component failures, manufacturing errors or design or labeling defects. Recalls of our TAEUS applications would divert managerial attention, be expensive, harm our reputation with customers and harm our financial condition and results of operations. A recall announcement would negatively affect the price of our securities.

Healthcare reform measures could hinder or prevent our planned products' commercial success.

There have been, and we expect there will continue to be, a number of legislative and regulatory changes to the healthcare system in ways that could harm our future revenues and profitability and the future revenues and profitability of our potential customers. In the European Union, although there have not been any recent amendments to the relevant regulatory legislation, there are ongoing discussions regarding amending the current regulatory framework for medical devices. Moreover, because the Medical Devices Directive requires only minimum harmonization in the European Union, member countries may alter their enforcement of the directives or amend their national regulatory rules. We cannot predict what healthcare initiatives, if any, will be implemented by the European Union or E.U. member countries, or the effect any future legislation or regulation will have on us.

In the United States, federal and state lawmakers regularly propose and, at times, enact legislation that would result in significant changes to the healthcare system, some of which are intended to contain or reduce the costs of medical products and services. For example, one of the most significant healthcare reform measures in decades, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act, or Affordable Care Act, was enacted in 2010. The Affordable Care Act contains a number of provisions, including those governing enrollment in federal healthcare programs, reimbursement changes and fraud and abuse measures, all of which will impact existing government healthcare programs and will result in the development of new programs. The Affordable Care Act, among other things, imposes an excise tax of 2.3% on the sale of most medical devices, including ours, and any failure to pay this amount could result in the imposition of an injunction on the sale of our products, fines and penalties.

It remains unclear whether changes will be made to the Affordable Care Act, or whether it will be repealed or materially modified. We cannot assure you that the Affordable Care Act, as currently enacted or as amended or discontinued in the future, will not harm our business and financial results and we cannot predict how future federal or state legislative or administrative changes relating to healthcare reform will affect our business.

There likely will continue to be legislative and regulatory proposals at the federal and state levels directed at containing or lowering the cost of healthcare. We cannot predict the initiatives that may be adopted in the future or their full impact. The continuing efforts of the government, insurance companies, managed care organizations and other payors of healthcare services to contain or reduce costs of healthcare may harm:

- our ability to set a price that we believe is fair for our products;
- our ability to generate revenues and achieve or maintain profitability; and
- the availability of capital.

If we fail to comply with healthcare regulations, we could face substantial penalties and our business, operations and financial condition could be adversely affected.

Even though we do not and will not control referrals of healthcare services or bill directly to Medicare, Medicaid or other third party payors, certain federal and state healthcare laws and regulations pertaining to fraud and abuse and patients' rights are and will be applicable to our business. We could be subject to healthcare fraud and abuse and patient privacy regulation by both the federal government and the states in which we conduct our business. Other jurisdictions such as the European Union have similar laws. The regulations that will affect how we operate include:

- the federal healthcare program Anti-Kickback Statute, which prohibits, among other things, any person from knowingly and willfully offering, soliciting, receiving or providing remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual for, or the purchase, order or recommendation of, any good or service for which payment may be made under federal healthcare programs, such as the Medicare and Medicaid programs;

- the federal False Claims Act, which prohibits, among other things, individuals or entities from knowingly presenting, or causing to be presented, false claims, or knowingly using false statements, to obtain payment from the federal government;
- federal criminal laws that prohibit executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters;
- the federal Physician Payment Sunshine Act, created under the Affordable Care Act, and its implementing regulations, which require manufacturers of drugs, medical devices, biologicals and medical supplies for which payment is available under Medicare, Medicaid, or the Children's Health Insurance Program to report annually to the U.S. Department of Health and Human Services, or HHS, information related to payments or other transfers of value made to physicians and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, which governs the conduct of certain electronic healthcare transactions and protects the security and privacy of protected health information; and
- state law equivalents of each of the above federal laws, such as anti-kickback and false claims laws which may apply to items or services reimbursed by any third-party payor, including commercial insurers.

The Affordable Care Act, among other things, amends the intent requirement of the Federal Anti-Kickback Statute and criminal healthcare fraud statutes. A person or entity no longer needs to have actual knowledge of this statute or specific intent to violate it. In addition, the Affordable Care Act provides that the government may assert that a claim including items or services resulting from a violation of the Federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the False Claims Act.

Efforts to ensure that our business arrangements will comply with applicable healthcare laws may involve substantial costs. It is possible that governmental and enforcement authorities will conclude that our business practices do not comply with current or future statutes, regulations or case law interpreting applicable fraud and abuse or other healthcare laws and regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of civil, criminal and administrative penalties, damages, disgorgement, monetary fines, possible exclusion from participation in Medicare, Medicaid and other federal and similar foreign healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, and curtailment of our operations, any of which could harm our ability to operate our business and our results of operations.

Compliance with environmental laws and regulations could be expensive. Failure to comply with environmental laws and regulations could subject us to significant liability.

Our research and development and manufacturing operations may involve the use of hazardous substances and are subject to a variety of federal, state, local and foreign environmental laws and regulations relating to the storage, use, discharge, disposal, remediation of, and human exposure to, hazardous substances and the sale, labeling, collection, recycling, treatment and disposal of products containing hazardous substances. In addition, our research and development and manufacturing operations produce biological waste materials, such as human and animal tissue, and waste solvents, such as isopropyl alcohol. These operations are permitted by regulatory authorities, and the resultant waste materials are disposed of in material compliance with environmental laws and regulations. Liability under environmental laws and regulations can be joint and several and without regard to fault or negligence. Compliance with environmental laws and regulations may be expensive and non-compliance could result in substantial liabilities, fines and penalties, personal injury and third part property damage claims and substantial investigation and remediation costs. Environmental laws and regulations could become more stringent over time, imposing greater compliance costs and increasing risks and penalties associated with violations. We cannot assure you that violations of these laws and regulations will not occur in the future or have not occurred in the past as a result of human error, accidents, equipment failure or other causes. The expense associated with environmental regulation and remediation could harm our financial condition and operating results.

Risks Related to this Offering and Owning Our Securities, Our Financial Results and Our Need for Financing

The preliminary financial data contained herein are based on information existing as of the date hereof and there can be no assurance that actual financial results will not differ, potentially materially so.

The estimated financial results included herein are based on information existing as of the date hereof. During the preparation of our financial statements for the quarter ending March 31, 2017, we may identify items that would require us to make adjustments, which may be material to the estimates described above. This preliminary financial data has been prepared by and is the responsibility of our management. RBSM LLP has not audited, reviewed, compiled or performed any procedures with respect to this preliminary financial data, and accordingly, RBSM LLP does not express an opinion or any other form of assurance with respect thereto. Accordingly, there can be no assurance that the projected results will be realized or that actual results will not be significantly lower than projected.

Our quarterly and annual results may fluctuate significantly, may not fully reflect the underlying performance of our business and may result in decreases in the price of our securities.

Our operating results will be affected by numerous factors such as:

- variations in the level of expenses related to our proposed products;
- status of our product development efforts;
- execution of collaborative, licensing or other arrangements, and the timing of payments received or made under those arrangements;
- intellectual property prosecution and any infringement lawsuits to which we may become a party;
- regulatory developments affecting our products or those of our competitors;
- our ability to obtain and maintain FDA clearance and approval from foreign regulatory authorities for our products, which have not yet been approved for marketing;
- market acceptance of our TAEUS applications;
- the availability of reimbursement for our TAEUS applications;
- our ability to attract new customers and grow our business with existing customers;
- the timing and success of new product and feature introductions by us or our competitors or any other change in the competitive dynamics of our industry, including consolidation among competitors, customers or strategic partners;
- the amount and timing of costs and expenses related to the maintenance and expansion of our business and operations;
- changes in our pricing policies or those of our competitors;
- general economic, industry and market conditions;
- the hiring, training and retention of key employees, including our ability to expand our sales team;
- litigation or other claims against us;
- our ability to obtain additional financing; and
- advances and trends in new technologies and industry standards.

Any or all of these factors could adversely affect our cash position requiring us to raise additional capital which may be on unfavorable terms and result in substantial dilution.

The forecasts of market growth included in this prospectus may prove to be inaccurate, and even if the markets in which we compete achieve the forecasted growth, our business may not grow at similar rates, if at all.

Growth forecasts are subject to significant uncertainty and are based on assumptions and estimates that may not prove to be accurate. The forecasts in this prospectus relating to, among other things, the expected growth and need for diagnosis of NAFLD and the growth and need for temperature monitoring of thermal ablation procedures may prove to be inaccurate.

Even if these markets experience the forecasted growth described in this prospectus, we may not grow our business at similar rates, or at all. Our growth is subject to many factors, including whether the markets for NAFLD diagnosis and thermal ablation continue to grow, the rate of market acceptance of our TAEUS applications versus the products of our competitors and our success in implementing our business strategies, each of which is subject to many risks and uncertainties. Accordingly, the forecasts of market growth included in this prospectus should not be taken as indicative of our future growth.

If we are unable to implement and maintain effective internal control over financial reporting in the future, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our securities may decrease.

As a public company, we will be required to maintain internal control over financial reporting and to report any material weaknesses in such internal controls. Section 404 of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, requires that we evaluate and determine the effectiveness of our internal control over financial reporting and, beginning with our annual report for the year ending December 31, 2018, provide a management report on our internal control over financial reporting, which must be attested to by our independent registered public accounting firm to the extent we are no longer an “emerging growth company,” as defined by the Jumpstart Our Businesses Act of 2012, or the JOBS Act, or a smaller reporting company under the Securities Act.

Currently and in the future, if we have material weaknesses in our internal control over financial reporting, we may not detect errors on a timely basis and our financial statements may be materially misstated. We are in the process of designing and implementing our internal control over financial reporting, which process will be time consuming, costly and complicated. However, we are a small organization with limited management resources. In addition to serving as our Chief Financial Officer, David Wells provides financial consulting services to several other companies. These other consulting services could prevent Mr. Wells from dedicating sufficient time and attention to us, which could limit our ability to maintain effective internal controls over financial reporting.

Until such time as we are no longer an "emerging growth company" or a smaller reporting company, our auditors will not be required to attest as to our internal control over financial reporting. If we continue to identify material weaknesses in our internal control over financial reporting, if we are unable to comply with the requirements of Section 404 in a timely manner, if we are unable to assert that our internal control over financial reporting is effective or, once required, if our independent registered public accounting firm is unable to attest that our internal control over financial reporting is effective, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our common stock could decrease. We could also become subject to stockholder or other third-party litigation as well as investigations by the stock exchange on which our securities are listed, the Securities and Exchange Commission, or the SEC, or other regulatory authorities, which could require additional financial and management resources and could result in fines, trading suspensions or other remedies.

We may not be able to secure additional financing on favorable terms, or at all, to meet our future capital needs and our failure to obtain additional financing when needed could force us to delay, reduce or eliminate our product development programs and commercialization efforts.

We believe that the net proceeds from this offering, together with our current cash and expected revenues from operations, will be sufficient for us to fund the development and regulatory approval and to initiate the commercialization of our NAFLD TAEUS application in the European Union. However, the expected net proceeds from this offering are not expected to be sufficient for us to complete the full commercialization of this application in the European Union or to complete the development of any other TAEUS application. As a result, we expect that we will need to finance our future cash needs through public or private equity offerings, debt financings, corporate collaboration and licensing arrangements or other financing alternatives.

To date, we have financed our operations primarily through sales of our Nexus 128 system and net proceeds from the issuance of equity and debt securities. We do not know when or if our operations will generate sufficient cash to fund our ongoing operations. In the future, we may require additional capital in order to (i) continue to conduct research and development activities; (ii) conduct clinical studies; (iii) fund the costs of seeking regulatory approval of TAEUS applications; (iv) expand our sales and marketing infrastructure; (v) acquire complementary business technology or products; or (vi) respond to business opportunities, challenges, increased regulatory obligations or unforeseen circumstances. Our forecast of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement and involves risks and uncertainties, and actual results could vary as a result of a number of factors, including the factors discussed elsewhere in this "Risk Factors" section. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect. Our future funding requirements will depend on many factors, including, but not limited to:

- the costs, timing and outcomes of regulatory reviews associated with our future products, including TAEUS applications;
- the costs and expenses of expanding our sales and marketing infrastructure;
- the costs and timing of developing variations of our TAEUS applications and, if necessary, obtaining regulatory clearance of such variations;
- the degree of success we experience in commercializing our products, particularly our TAEUS applications;
- the extent to which our TAEUS applications are adopted by hospitals for use by primary care physicians, hepatologists, radiologists and oncologists for diagnosis of fatty liver disease and the thermal ablation of lesions;
- the number and types of future products we develop and commercialize;
- the costs of preparing, filing and prosecuting patent applications and maintaining, enforcing and defending intellectual property-related claims;
- the extent and scope of our general and administrative expenses;
- the progress, timing, scope and costs of our clinical trials, including the ability to timely enroll patients in our planned and potential future clinical trials;
- the outcome, timing and cost of regulatory approvals, including the potential that the FDA or comparable regulatory authorities may require that we perform more studies than those that we currently expect;
- the amount of sales and other revenues from technologies and products that we may commercialize, if any, including the selling prices for such potential products and the availability of adequate third-party reimbursement;
- selling and marketing costs associated with our potential products, including the cost and timing of expanding our marketing and sales capabilities;

- the terms and timing of any potential future collaborations, licensing or other arrangements that we may establish;
- cash requirements of any future acquisitions and/or the development of other products;
- the costs of operating as a public company;
- the cost and timing of completion of commercial-scale, outsourced manufacturing activities; and
- the time and cost necessary to respond to technological and market developments.

We may raise funds in equity or debt financings following our initial public offering or enter into credit facilities in order to access funds for our capital needs. Any debt financing obtained by us in the future would cause us to incur debt service expenses and could include restrictive covenants relating to our capital raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and pursue business opportunities. If we raise additional funds through further issuances of equity or convertible debt securities, our existing stockholders could suffer significant dilution in their percentage ownership of our Company, and any new equity securities we issue could have rights, preferences and privileges senior to those of holders of our common stock. General market conditions or the market price of our common stock may not support capital raising transactions such as an additional public or private offering of our common stock or other securities. If we are unable to obtain adequate financing or financing on terms satisfactory to us when we require it, we may terminate or delay the development of one or more of our products, or delay establishment of sales and marketing capabilities or other activities necessary to commercialize our products. In addition, if we raise additional funds through collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams or products or to grant licenses on terms that may not be favorable to us.

If we are unable to raise additional capital when needed, we may be required to curtail the development of our technology or materially curtail or reduce our operations. We could be forced to sell or dispose of our rights or assets. Any inability to raise adequate funds on commercially reasonable terms could have a material adverse effect on our business, results of operation and financial condition, including the possibility that a lack of funds could cause our business to fail and liquidate with little or no return to investors.

We may be subject to securities litigation, which is expensive and could divert management attention.

The price of our securities may be volatile, and in the past companies that have experienced volatility in the market price of their securities have been subject to an increased incidence of securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

As an investor, you may lose all of your investment.

Investing in our securities involves a high degree of risk. As an investor, you may never recoup all, or even part, of your investment and you may never realize any return on your investment. You must be prepared to lose all of your investment.

Prior to the completion of our initial public offering, there will have been no public trading market for our units, common stock or warrants. An active public trading market for our securities may not develop and our securities may trade below the public offering price.

The offering under this prospectus is an initial public offering of our securities. Prior to the closing of the offering, there will have been no public market for our units, common stock or warrants. An active public trading market for our units, common stock and warrants may not develop after the completion of the offering. If an active trading market for our units, common stock or warrants does not develop after this offering, the market price and liquidity of our units, common stock and warrants may be materially and adversely affected. The public offering price for our units has been determined by negotiation among us and the underwriters based upon several factors, and the price at which our units trade after this offering may decline below the public offering price. Investors in our units may experience a significant decrease in the value of their units regardless of our operating performance or prospects.

If a public market for our units, common stock or warrants develops, it may be volatile. This may affect the ability of our investors to sell their securities as well as the price at which they sell their securities.

If a market for our units, common stock or warrants develops, the market price for the units, shares and warrants may be significantly affected by factors such as variations in quarterly and yearly operating results, general trends in the medical imaging industry, and changes in state or federal regulations affecting us and our industry. Furthermore, in recent years the stock market has experienced extreme price and volume fluctuations that are unrelated or disproportionate to the operating performance of the affected companies. Such broad market fluctuations may adversely affect the market price of our units, common stock and warrants, if markets for them develop.

In addition to market and industry factors, the price and trading volume for our units, common stock and warrants may be highly volatile for specific business reasons, including:

- announcements of regulatory approval or a complete response letter, or specific label indications or patient populations for its use, or changes or delays in the regulatory review process;
- announcements of innovations or new products by us or other participants in the medical imaging market;
- adverse actions taken by regulatory agencies with respect to our clinical trials, manufacturing supply chain or sales and marketing activities;
- any adverse changes to our relationship with manufacturers or suppliers;
- results of our testing and clinical trials;
- results of our efforts to acquire or license additional products;
- variations in the level of expenses related to our existing products or pre-clinical and clinical development programs;
- any intellectual property infringement actions in which we may become involved;
- announcements concerning our competitors or the medical imaging industry in general;
- achievement of expected product sales and profitability;
- manufacture, supply or distribution shortages;
- variations in our results of operations;
- announcements about our earnings that are not in line with analyst expectations;

- publication of operating or industry metrics by third parties, including government statistical agencies, that differ from expectations of industry or financial analysts;
- changes in financial estimates by securities research analysts;
- press reports, whether or not true, about our business;
- additions to or departures of our management;
- release or expiry of lock-up or other transfer restrictions on our outstanding securities;
- sales or perceived potential sales of additional securities;
- sales of our securities by us, our executive officers and directors or our stockholders in the future;
- general economic and market conditions and overall fluctuations in the U.S. equity markets; and
- changes in accounting principles.

Any of these factors may result in large and sudden changes in the volume and trading price of our securities. In addition, the stock market, in general, and smaller companies like ours, in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Broad market and industry factors may negatively affect the market price of our units, common stock and warrants, regardless of our actual operating performance.

The warrants may not have any value.

The warrants will be exercisable beginning after separation from the units and until the five year anniversary of the date of initial issuance of the units at an initial exercise price equal to 125% of the initial offering price per unit set forth on the cover page of this prospectus. In the event that our common stock price does not exceed the exercise price of the warrants during the period when the warrants are exercisable, the warrants may not have any value.

A warrant does not entitle the holder to any rights as common stockholders until the holder exercises the warrant for a share of our common stock.

Until you acquire shares upon exercise of your warrants, the warrants will not provide you any rights as a common stockholder. Upon exercise of your warrants, you will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

We are an "emerging growth company" under the JOBS Act and we cannot be certain if the reduced disclosure requirements applicable to emerging growth companies will make our securities less attractive to investors.

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, and we may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not "emerging growth companies" including, but not limited to, not being required to comply with the auditor attestation requirements of section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We cannot predict if investors will find our securities less attractive because we may rely on these exemptions. If some investors find our securities less attractive as a result, there may be a less active trading market for our securities and the price of our securities may be more volatile.

We will remain an "emerging growth company" for up to five years, although we will lose that status sooner if our annual revenues exceed $1 billion, if we issue more than $1 billion in non-convertible debt in a three year period, or if the market value of our common stock that is held by non-affiliates exceeds $700 million as of any June 30.

If securities or industry analysts do not publish research reports about our business, or if they issue an adverse opinion about our business, the price of our securities and trading volume could decline.

The trading market for our securities will be influenced by the research and reports that industry or securities analysts publish about us or our business. We do not currently have and may never obtain research coverage by securities and industry analysts. If no or few analysts commence research coverage of us, or one or more of the analysts who cover us issues an adverse opinion about our company, the price of our securities would likely decline. If one or more of these analysts ceases research coverage of us or fails to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause the price of our securities or trading volume to decline.

We have not paid dividends in the past and have no immediate plans to pay dividends.

We plan to reinvest all of our earnings, to the extent we have earnings, in order to further develop our technology and potential products and to cover operating costs. We do not plan to pay any cash dividends with respect to our securities in the foreseeable future. We cannot assure you that we would, at any time, generate sufficient surplus cash that would be available for distribution to the holders of our common stock as a dividend. Therefore, you should not expect to receive cash dividends on the common stock we are offering.

Concentration of ownership among our existing executive officers, directors and significant stockholders may prevent new investors from influencing significant corporate decisions.

All decisions with respect to the management of the Company will be made by our board of directors and our officers, who, before this offering, beneficially own approximately 26.1% of our common stock, as calculated in accordance with Rule 13d-3 promulgated under the Securities Exchange Act of 1934, as amended, or the Exchange Act. After the issuance of our common stock underlying the units in this offering, management will beneficially own approximately 6.3% of our common stock, as calculated in accordance with Rule 13d-3. In addition, before this offering, Blue Earth Fund, LP, Jeffrey and Margaret Padnos, Benjamin Padnos, Erick Richardson and Robert Clifford and their affiliates beneficially own approximately 23.4%, 16.8%, 16.3%, 13.0% and 10.1% of our common stock, respectively, and after this offering will beneficially own approximately 5.5%, 3.7%, 3.7%, 2.8% and 2.1% of our common stock, respectively, as calculated in accordance with Rule 13d-3 promulgated under the Exchange Act. As a result, these stockholders will be able to exercise a substantial level of control over all matters requiring stockholder approval, including the election of directors, amendment of our Fourth Amended and Restated Certificate of Incorporation, or the Certificate of Incorporation, and approval of significant corporate transactions. This control could have the effect of delaying or preventing a change of control of the Company or changes in management and will make the approval of certain transactions difficult or impossible without the support of these stockholders.

Certain of our stockholders who have relationships with National Securities Corporation, an underwriter in this offering, may have conflicts of interest with respect to matters involving our Company.

As noted in the section titled “Conflicts of Interest,” National Securities Corporation has a conflict of interest in offering our units since affiliates of National Securities Corporation beneficially own more than 10% of our outstanding common stock. As a result, National Securities Corporation is deemed to have a “conflict of interest” within the meaning of FINRA Rule 5121. Robert C. Clifford and Daniel Landry, stockholders of ours who, before this offering, beneficially own 10.1% and 8.8% of our common stock, respectively, are both principals of Liquid Venture Partners, LLC, an affiliate of National Securities Corporation. Due to this conflict of interest, Dougherty & Company LLC is acting as a qualified independent underwriter. However, in the future, our stockholders who are affiliated with National Securities Corporation may face real or apparent conflicts of interest with matters affecting both us and National Securities Corporation.

We will incur significant increased costs as a result of becoming a public company that reports to the SEC and our management will be required to devote substantial time to meet compliance obligations.

As a public company listed in the United States, we will incur significant legal, accounting and other expenses that we did not incur as a private company. We will be subject to reporting requirements of the Exchange Act and the Sarbanes-Oxley Act, as well as rules subsequently implemented by the SEC and Nasdaq that impose significant requirements on public companies, including requiring the establishment and maintenance of effective disclosure and financial controls and changes in corporate governance practices. In addition, in 2010, the Dodd-Frank Wall Street Reform and Protection Act, or the Dodd-Frank Act, was enacted. There are significant corporate governance and executive compensation-related provisions in the Dodd-Frank Act that will increase our legal and financial compliance costs, make some activities more difficult, time-consuming or costly and may also place undue strain on our personnel, systems and resources. Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives. In addition, these rules and regulations may make it more difficult and more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. As a result, it may be more difficult for us to attract and retain qualified people to serve on our board of directors, our board committees or as executive officers.

A significant portion of our total outstanding shares of common stock is restricted from immediate resale but may be sold into the market in the near future. This could cause the market price of our securities to drop significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock in the public market could occur in the future. These sales, or the perception in the market that the holders of a large number of securities intend to sell shares, could reduce the market price of our common stock. After this offering, we will have outstanding 3,640,267 shares of common stock (or 3,892,267 shares if the underwriters exercise their option to purchase additional units in full). Of these outstanding shares, all of the 1,680,000 shares of common stock (or 1,932,000 shares if the underwriters exercise their option to purchase additional units in full) and warrants exercisable for 1,680,000 shares of common stock (or 1,932,000 shares if the underwriters exercise their option to purchase additional units in full) issued in this offering will be freely tradable upon separation of the units. In addition, we expect that the shares issued upon exercise of the warrants issued in this offering will be freely tradeable. The remaining outstanding shares of our common stock will be restricted under securities laws or as a result of lock-up agreements but will be able to be resold after the offering as described in the "Shares Eligible for Future Sale" section of this prospectus. We also intend to register all shares of common stock that we may issue under our equity compensation plans. Once we register these shares, they can be freely sold in the public market upon issuance and once vested, subject to the 180- and 365-day lock-up periods under the lock-up agreements described in the "Underwriting" section of this prospectus.

Future sales and issuances of our common stock or rights to purchase common stock, including pursuant to our equity incentive plan, could result in additional dilution of the percentage ownership of our stockholders and could cause the price of our securities to fall.

We expect that significant additional capital will be needed in the future to continue our planned operations. To the extent we raise additional capital by issuing equity securities, our stockholders may experience substantial dilution. We may sell common stock, convertible securities or other equity securities. If we sell common stock, convertible securities or other equity securities, your investment in our common stock will be diluted. These sales may also result in material dilution to our existing stockholders, and new investors could gain rights superior to our existing stockholders.

We may allocate the net proceeds from this offering in ways that differ from the estimates discussed in the section titled "Use of Proceeds" and with which you may not agree.

The allocation of net proceeds of this offering set forth in the "Use of Proceeds" section below represents our estimates based upon our current plans and assumptions regarding industry and general economic conditions, and our future revenues and expenditures. The amounts and timing of our actual expenditures will depend on numerous factors, including market conditions, cash generated by our operations, business developments and related rate of growth. We may find it necessary or advisable to use portions of the proceeds from this offering for other purposes. Circumstances that may give rise to a change in the use of proceeds and the alternate purposes for which the proceeds may be used are discussed in the section entitled "Use of Proceeds" below. You may not have an opportunity to evaluate the economic, financial or other information on which we base our decisions on how to use our proceeds. As a result, you and other stockholders may not agree with our decisions. See "Use of Proceeds" for additional information.

You will experience immediate dilution in the book value per share of the common stock you purchase.

The initial public offering price per unit (and our common stock forming part of such unit) will be substantially higher than the net tangible book value (deficit) per share of our common stock immediately prior to the offering. After giving effect to the sale of units in this offering, at the initial public offering price of $5.00 per unit, and after deducting the underwriting discount and estimated offering expenses payable by us and attributing no value to the warrants included in the units, purchasers of our units in this offering will incur immediate dilution of $2.84 per share in the net tangible book value (deficit) of the common stock they acquire. In the event that you exercise your warrants, you will experience additional dilution to the extent that the exercise price of the warrants is higher than the tangible book value (deficit) per share of our common stock. For a further description of the dilution that investors in this offering will experience, see "Dilution."

Our charter documents and Delaware law may inhibit a takeover that stockholders consider favorable.

Upon the closing of this offering, provisions of our Certificate of Incorporation and bylaws and applicable provisions of Delaware law may delay or discourage transactions involving an actual or potential change in control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares, or transactions that our stockholders might otherwise deem to be in their best interests. The provisions in our Certificate of Incorporation and bylaws:

- authorize our board of directors to issue preferred stock without stockholder approval and to designate the rights, preferences and privileges of each class; if issued, such preferred stock would increase the number of outstanding shares of our common stock and could include terms that may deter an acquisition of us;
- limit who may call stockholder meetings;
- do not provide for cumulative voting rights; and
- provide that all vacancies may be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum.

In addition, once we become a publicly traded corporation, section 203 of the Delaware General Corporation Law may limit our ability to engage in any business combination with a person who beneficially owns 15% or more of our outstanding voting stock unless certain conditions are satisfied. This restriction lasts for a period of three years following the share acquisition. These provisions may have the effect of entrenching our management team and may deprive you of the opportunity to sell your shares to potential acquirers at a premium over prevailing prices. This potential inability to obtain a control premium could reduce the price of our common stock. See "Anti-Takeover Effects of Certain Provisions of Delaware Law and Our Charter Documents" for additional information.

Our disclosure controls and procedures may not prevent or detect all errors or acts of fraud.

Upon completion of this offering, we will become subject to the periodic reporting requirements of the Exchange Act. Our disclosure controls and procedures are designed to reasonably assure that information required to be disclosed by us in reports we file or submit under the Exchange Act is accumulated and communicated to management, and recorded, processed, summarized and reported within the time periods specified by the rules and forms of the SEC. We believe that any disclosure controls and procedures or internal controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met.

These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by an unauthorized override of the controls. Accordingly, because of the inherent limitations in our control system, misstatements due to error or fraud may occur and not be detected.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS AND OTHER INFORMATION CONTAINED IN THIS PROSPECTUS

This prospectus contains forward-looking statements. All statements other than statements of historical facts contained in this prospectus, including statements regarding the timing of our clinical trials, our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans, objectives of management and expected market growth are forward-looking statements. In addition, our preliminary financial data for the quarter ending March 31, 2017 contained in this prospectus are forward-looking statements. Forward-looking statements give our current expectations or forecasts of future events. You can find many (but not all) of these statements by looking for words such as “approximates,” “believes,” “hopes,” “expects,” “anticipates,” “estimates,” “projects,” “intends,” “plans,” “would,” “should,” “could,” “may” or other similar expressions in this prospectus. These statements may be found principally under the sections entitled “Prospectus Summary,” “Risk Factors,” “Use of Proceeds,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Business.” These forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from our historical experience and our present expectations or projections. Actual results may differ materially from those discussed as a result of various factors, including, but not limited to:

- our need to secure required regulatory approvals from governmental authorities in the European Union, United States and other jurisdictions;
- our dependence on third parties to design, manufacture, obtain required regulatory approvals of, market and distribute our TAEUS applications;
- our ability to commercialize any applications of our TAEUS technology and the pricing of any such applications;
- our limited operating history and our ability to achieve profitability;
- our need for and ability to obtain adequate financing in the future;
- the impact of competitive or alternative products, technologies and pricing;
- the adequacy of protections afforded to us by the patents that we own and the success we may have in, and the cost to us of, maintaining, enforcing and defending those patents;
- our ability to obtain, expand and maintain patent protection in the future, and to protect our non-patented intellectual property;
- general economic conditions and events and the impact they may have on us and our potential customers;
- our ability to continue as a going concern;
- our success at managing the risks involved in the foregoing items ; and
- other factors discussed in the “Risk Factors” section of this prospectus.

These statements reflect our views with respect to future events as of the date of this prospectus and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. These forward-looking statements represent our estimates and assumptions only as of the date of this prospectus and, except as required by law, we undertake no obligation to update or review publicly any forward-looking statements, whether as a result of new information, future events or otherwise after the date of this prospectus. We anticipate that subsequent events and developments will cause our views to change. You should read this prospectus and the documents referenced in this prospectus and filed as exhibits to 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. Our forward-looking statements do not reflect the potential impact of any future acquisitions, merger, dispositions, joint ventures or investments we may undertake. We qualify all of our forward-looking statements by these cautionary statements.

USE OF PROCEEDS

We estimate that we will receive net proceeds of approximately $7.0 million from this offering, or approximately $8.1 million if the underwriters exercise their over-allotment option in full, after deducting the underwriting discount and estimated offering expenses payable by us and excluding the proceeds, if any, from the exercise of the warrants.

We intend to use the net proceeds from this offering to fund the development and regulatory approval and to prepare for the initial commercialization of our NAFLD TAEUS application in the European Union and for working capital and other general corporate purposes. However, we will require additional funds to commercialize this application in the European Union and to implement the balance of our business plan thereafter. We believe that our NAFLD TAEUS application will qualify for sale in the European Union as a Class IIa medical device. As a result, we will be required to obtain a CE mark for our NAFLD TAEUS application before we can sell the application in the European Union.

Existing regulations would not require us to conduct a clinical trial to obtain a CE mark for this application. Nonetheless, for commercial reasons and to support our CE mark application, we plan to conduct a limited (less than 10 person) trial to demonstrate our NAFLD TAEUS application's ability to distinguish fat from lean tissue. We intend to engage a medical device contract engineering firm to perform commercial product engineering, and to obtain a CE mark, for this application. Based on our understanding of applicable regulations and consultations with medical device regulatory consulting firms and medical device contract engineering firms, we expect that the development of our NAFLD TAEUS application, including the receipt of the necessary CE mark, will be complete within 12 to 15 months after the completion of this offering and that we will use approximately $700,000 of the net proceeds from this offering on such activities.

While we are seeking a CE mark for our NAFLD TAEUS application, we also plan to expand our sales, marketing and customer support capabilities, so that we can commence initial commercial sales of the application in the European Union promptly following receipt of this regulatory approval. We estimate that we will use approximately $600,000 of the net proceeds from this offering on such activities. Additionally, to enhance our commercialization efforts in the European Union, following receipt of such CE mark and placement of initial systems with researchers and universities, we plan to conduct one or more clinical studies to demonstrate this product's capabilities, and that we will use approximately $250,000 of the net proceeds from this offering on such activities. However, these estimates are subject to uncertainty and there can be no assurance that these processes will not take longer or be more costly than we expect.

We expect to use the balance of the net proceeds from this offering on research and development, additional regulatory activities, sales and marketing activities for general and administrative expense and other general corporate purposes.

The amounts and timing of our actual expenditures will depend on numerous factors, including market conditions, results from our research and development efforts, business developments and related sales and marketing activities. Therefore, as of the date of this prospectus, we cannot specify with certainty the specific allocation of the net proceeds to be received upon the completion of this offering. Our management will have broad discretion in the application of the net proceeds, and investors will be relying on the judgment of our management regarding the application of the proceeds from this offering.

We believe that the net proceeds of this offering, together with our existing cash, will be sufficient for us to fund the development of our NAFLD TAEUS application through the expected receipt of regulatory approval in the European Union and to prepare for the initial commercialization of our NAFLD TAEUS application in this market. It is possible that we will not achieve the progress that we expect because of unforeseen costs or factors impacting timely completion of the regulatory approvals for a new medical device, which are difficult to predict and are subject to risks and delays. We have no other committed external sources of funds. The expected net proceeds from this offering are not expected to be sufficient for the commercialization of our NAFLD TAEUS application in the European Union, to initiate the process for obtaining required regulatory approvals in the U.S. or China or to commercialize this application in these markets, or to complete the development of any other TAEUS application. As a result, we expect that we will need to finance our future cash needs through public or private equity offerings, debt financings, corporate collaboration and licensing arrangements or other financing alternatives.

Pending our use of the net proceeds from this offering, we intend to invest the net proceeds in a variety of capital preservation investments, including short-term, investment-grade, interest-bearing instruments and U.S. government securities.

DIVIDEND POLICY

We have never declared or paid any dividends on our capital stock, and do not plan to do so for the foreseeable future. We expect that we will retain all of our available funds and future earnings, if any, for use in the operation and expansion of our business. The terms of any loan agreement we enter into or any debt securities we may issue are likely to contain restrictions on our ability to pay dividends on our capital stock. Subject to the foregoing, the payment of dividends in the future, if any, will be at the discretion of our board of directors and will depend upon such factors as earnings levels, capital requirements, restrictions imposed by applicable law, our overall financial condition and any other factors deemed relevant by our board of directors.

CAPITALIZATION

The following table sets forth our actual cash and capitalization, each as of December 31, 2016:

- on an actual basis;
- on a pro forma basis to give effect to the reverse stock split, to reflect the filing of our Fourth Amended and Restated Certificate of Incorporation in connection with this offering and to give effect to the conversion of the outstanding principal and accrued interest on our outstanding convertible promissory notes as of March 17, 2017 into an aggregate of 1,236,894 shares of our common stock at a conversion price of $1.40 per share immediately prior to the completion of this offering, as elected by holders of a majority of the outstanding principal amount of such convertible promissory notes; and
- on a pro forma as adjusted basis, to further reflect the sale by us of units at the initial public offering price of $5.00 per unit, and after deducting the underwriting discount and estimated offering expenses payable by us and the receipt by us of the expected net proceeds of such sale.

The pro forma and pro forma as adjusted information below is illustrative only, and our capitalization following the closing of this offering may differ from that shown below based on the actual initial public offering price and other terms of this offering determined at pricing. You should read this information together with the sections entitled “Summary Financial Data” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our financial statements and the related notes, which appear elsewhere in this prospectus.

	As of December 31, 2016		
	Actual	Pro Forma	Pro Forma As Adjusted (1)
Cash	$ 144,953	$ 144,953	$ 7,122,953
Capitalization			
Debt:		--	--
Senior convertible notes	1,731,650	--	--
Total debt	$ 1,731,650	$ --	$ --
Stockholders Equity:			
Preferred stock, $0.0001 par value; 34,861,927 shares authorized; no shares issued or outstanding, actual; 10,000,000 shares authorized pro forma; no shares issued or outstanding pro forma and pro forma as adjusted	--	--	--
Common stock, $0.0001 par value; 45,000,000 shares authorized; 2,531,808 shares issued and outstanding actual; 50,000,000 shares authorized and 1,960,627 shares issued and outstanding, pro forma, and 50,000,000 shares authorized and 3,640,267 shares issued and outstanding, pro forma as adjusted	253	196	364
Stock payable(2)	81,000	81,000	81,000
Additional paid-in capital	11,543,453	13,275,160	20,302,993
Accumulated deficit	(12,518,473)	(12,518,473)	(12,518,473)
Total stockholders equity	(893,767)	837,883	7,865,885
Total capitalization	$ 837,883	$ 837,883	$ 7,865,885

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(1) The number of shares of our common stock to be outstanding after this offering is based on 1,960,267 shares of common stock outstanding as of December 31, 2016, which includes the conversion of the principal and accrued interest on our outstanding convertible promissory notes as of March 17, 2017 into an aggregate of 1,236,894 shares of our common stock at a conversion price of $1.40 per share immediately prior to the completion of this offering, as elected by holders of a majority of the outstanding principal amount of such convertible promissory notes, and excludes the following:
- 152,812 shares of common stock issuable upon the exercise of outstanding warrants, at a weighted average exercise price of $18.94 per share;
- 151,881 shares of our common stock issuable upon the exercise of outstanding stock options issued pursuant to our 2016 Omnibus Incentive Plan, or our Incentive Plan, at a weighted average exercise price of $10.01 per share and an estimated 639,582 shares of our common stock issuable upon the exercise of stock options expected to be granted to our directors and certain of our officers upon the completion of this offering at an exercise price equal to the initial public offering price set forth on the cover of this prospectus;
- an estimated 439,447 shares of our common stock that will be reserved for future issuance under our Incentive Plan;
- up to 1,680,000 shares of our common stock that may be issued under warrants to be sold in this offering; and
- up to 134,400 shares of our common stock issuable upon exercise of the underwriters' warrants issued to the underwriters in this offering.

(2) Stock Payable is to be issued at the closing of this offering to StoryCorp Consulting (d/b/a Wells Compliance Group) in an amount of 15,429 shares of common stock.

DILUTION

If you purchase units in this offering, you will experience dilution to the extent of the difference between the combined public offering price per unit in this offering and our pro forma as adjusted net tangible book value per share immediately after this offering, assuming no value is attributed to the warrants and such warrants are accounted for and classified as equity.

Net tangible book value per share represents total tangible assets less total liabilities, divided by the number of shares of common stock outstanding. Our historical net tangible book value as of December 31, 2016 (assuming the reverse stock split) was $(893,767), or $(1.24) per share of common stock. On a pro forma basis assuming the conversion of the principal and accrued interest on our outstanding convertible promissory notes as of March 17, 2017 into an aggregate of 1,236,893 shares of our common stock at a conversion price of $1.40 per share immediately prior to the completion of this offering, our pro forma net tangible book value as of December 31, 2016 would have been $837,883, or $0.43 per share. After giving effect to the sale of 1,680,000 units in this offering at the initial public offering price of $5.00 per unit, after deducting the underwriting discount and estimated our pro forma as adjusted net tangible book value as of December 31, 2016 would have been $7,865,885, or $2.16 per share. This represents an immediate increase in pro forma as adjusted net tangible book value of $1.72 per share to existing stockholders and an immediate dilution in pro forma as adjusted net tangible book value of $2.84 per share to investors in this offering. The following table illustrates this dilution on a per share basis:

Initial public offering price per unit			$	5.00
Historical net tangible book value per share as of December 31, 2016	$	(1.24)		
Pro forma increase in net tangible book value per share attributable to conversion of convertible promissory notes	$	1.66		
Pro forma net tangible book value per share as of December 31, 2016	$	0.43		
Pro forma increase in net tangible book value per share attributable to new investors	$	1.72		
Pro forma as adjusted tangible book value per share, after giving effect to this offering				2.16
Dilution of pro forma as adjusted net tangible book value per share to new investors			$	2.84

If the underwriters exercise in full their option to purchase 252,000 additional units at the initial public offering price of $5.00 per unit, the pro forma as adjusted net tangible book value per share after giving effect to this offering would be $2.31 per share, which amount represents an immediate increase in pro forma as adjusted net tangible book value of $1.88 per share of our common stock to existing stockholders and an immediate dilution in pro forma as adjusted net tangible book value of $2.69 per share of our common stock to new investors purchasing units in this offering.

The following table summarizes, on a pro forma as adjusted basis as described above as of December 31, 2016 and with respect to shares acquired since 2013 (and excluding shares acquired prior to 2013, for which it was impracticable to determine cost basis information), the number of shares of common stock purchased from us, the total consideration paid to us and the average price per share paid to us by our existing stockholders (including holders of our convertible promissory notes as of March 17, 2017 upon the conversion thereof) and by new investors purchasing units in this offering at the initial public offering price of $5.00 per unit, attributing no value to the warrants and assuming no exercise of the warrants, and before the deduction of the underwriting discount and estimated offering expenses payable by us. Investors purchasing units in this offering will pay an average price per share substantially higher than our existing stockholders paid.

	Shares Acquired		Total Consideration		Average Price
	Number	Percent	Amount	Percent	Per Share
Existing stockholders	1,969,294	54.0	$ 5,609,331	40.0	$ 2.85
New investors	1,680,000	46.0	$ 8,400,000	60.0	$ 5.00
Total		100%	100%		

In the event that you exercise your warrants, you will experience additional dilution to the extent that the exercise price of the warrants is higher than the average price per share paid to us by our existing stockholders. If any shares are issued upon exercise of outstanding options or warrants, you may experience further dilution.

The above discussion and tables are based on 1,960,267 shares of common stock outstanding as of March 17, 2017, which includes the conversion of the principal and accrued interest on our outstanding convertible promissory notes outstanding as of March 17, 2017 into an aggregate of 1,236,894 shares of our common stock at a conversion price of $1.40 per share immediately prior to the completion of this offering, as elected by the holders of a majority of the outstanding principal amount of such convertible promissory notes, and excludes the following:

- 152,812 shares of common stock issuable upon the exercise of outstanding warrants, at a weighted average exercise price of $18.94 per share;
- 151,881 shares of our common stock issuable upon the exercise of outstanding stock options issued pursuant to our 2016 Omnibus Incentive Plan, or our Incentive Plan, at a weighted average exercise price of $10.01 per share and an estimated 639,582 shares of our common stock issuable upon the exercise of stock options expected to be granted to our directors and certain of our officers upon the completion of this offering at an exercise price equal to the initial public offering price set forth on the cover of this prospectus;
- an estimated 439,447 shares of our common stock that will be reserved for future issuance under our Incentive Plan;
- up to 1,932,000 shares of our common stock that may be issued under warrants to be issued to the public in this offering; and
- 134,400 shares of our common stock issuable upon exercise of the underwriters' warrants issued to the underwriters in this offering.

We may choose to raise additional capital through the sale of equity or convertible debt securities due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that any of these options or warrants are exercised, new options are issued under our Incentive Plan or we issue additional shares of common stock or other equity securities in the future, there may be further dilution to new investors participating in this offering.

You should read the following discussion and analysis of our financial condition and results of operations together with the section entitled "Summary Financial Data" and our financial statements and related notes included elsewhere in this prospectus. Some of the information contained in this discussion and analysis or set forth elsewhere in this prospectus, including information with respect to our plans and strategy for our business and related financing, includes forward-looking statements that involve risks and uncertainties. See "Cautionary Note Regarding Forward-Looking Statements." Our actual results may differ materially from those described below. You should read the "Risk Factors" section of this prospectus for a discussion of important factors that could cause actual results to differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

Overview

We have commercialized an enhanced ultrasound technology for the pre-clinical research market and are leveraging that expertise to develop technology for increasing the capabilities of clinical diagnostic ultrasound, to broaden patient access to the safe diagnosis and treatment of a number of significant medical conditions in circumstances where expensive X-ray computed tomography, or CT, and magnetic resonance imaging, or MRI, technology is unavailable or impractical.

Since 2010, we have marketed and sold our Nexus 128 system, which combines light-based thermoacoustics and ultrasound, to address the imaging needs of researchers studying disease models in pre-clinical applications. Sales of the Nexus 128 system were approximately $1.4 million in 2015 and $515,000 in 2016. We have not yet completed preparation of financial statements for the quarter ending March 31, 2017, but, as described below under "Recent Financial Results," based on preliminary data available to us, we expect to report no revenue and a total net loss of approximately $650,000 during that quarter. Our Nexus 128 system is used in a number of leading global academic research centers, including Stanford University, The University of Michigan, Shanghai Jiao Tong University, and Purdue University. We expect to continue to sell our Nexus 128 system to maintain a base level of revenue, but believe the market potential for our clinical systems is much higher.

We believe that our TAEUS technology has the potential to add a number of new capabilities to conventional ultrasound and thereby enhance the utility of both existing and new ultrasound systems. Our TAEUS platform is not intended to replace CT and MRI systems, both of which are versatile imaging technologies with capabilities and uses beyond the focus of our business. However, they are also expensive, with a CT system costing approximately $1 million and an MRI system costing up to $3 million. In addition, and in contrast to ultrasound systems, due to their limited number and the fact that they are usually fixed-in-place at major medical facilities, CT and MRI systems are frequently inaccessible to patients.

We believe that our TAEUS platform can extend the use of ultrasound technology to a number of important applications that either require the use of expensive CT or MRI imaging systems or where imaging is not practical using existing technology. To demonstrate the capabilities of our TAEUS platform, we have conducted various internal ex-vivo laboratory experiments and have also conducted limited internal in-vivo large animal studies. However, we have not yet conducted any human studies and these capabilities are not supported by clinical data that we have gathered in pursuit of obtaining regulatory approvals or that was subject to regulatory oversight and guidance. In our ex-vivo and in-vivo testing, we have demonstrated that the TAEUS platform has the following capabilities and potential clinical applications:

- Tissue Composition: Our TAEUS technology enables ultrasound to distinguish fat from lean tissue. This capability would enable the use of TAEUS-enhanced ultrasound for the identification, staging and monitoring of NAFLD, a precursor to liver fibrosis, cirrhosis and liver cancer.
- Temperature Monitoring: Our TAEUS technology enables traditional ultrasound to visualize changes in tissue temperature, in real time. This capability would enable the use of TAEUS-enhanced ultrasound to guide thermoablative therapy, such as in the treatment of cardiac atrial fibrillation, or removal of cancerous liver and kidney lesions, with greater accuracy.
- Vascular Imaging: Our TAEUS technology enables ultrasound to view blood vessels from any angle, using only a saline solution contrasting agent, unlike Doppler ultrasound which requires precise viewing angles. This capability would enable the use of TAEUS-enhanced ultrasound to easily identify arterial plaque or malformed vessels.
- Tissue Perfusion: Our TAEUS technology enables ultrasound to image blood flow at the capillary level in a region, organ or tissue. This capability could be used to assist doctors in characterizing microvasculature fluid flows symptomatic of damaged tissue, such as internal bleeding from trauma, or diseased tissue, such as certain cancers.

After approval, our TAEUS technology can be added as an accessory to existing ultrasound systems, helping to improve clinical decision-making on the front lines of patient care, without requiring new clinical workflows or large capital investments. We are also developing TAEUS for incorporation into new ultrasound systems, primarily through our collaboration with GE Healthcare. We are not aware of any other ultrasound devices in development that include the anticipated functionality of our planned TAEUS applications.

Based on our design work and our understanding of the ultrasound accessory market, we intend to price our initial NAFLD TAEUS application at a price point approximating one-half of the price of a new cart-based ultrasound system, which should enable purchasers to recoup their investment in less than one year by performing a relatively small number of additional ultrasound procedures. We further believe that clinicians will be attracted to our technology because it will enable them to perform more procedures with their existing ultrasound equipment, thereby retaining more imaging patients in their clinics rather than referring patients out to a regional medical center for a CT or MRI scan.

We expect that the first-generation TAEUS application will be a standalone ultrasound accessory designed to cost-effectively quantify fat in the liver and stage progression of NAFLD, which can only be achieved today with impractical surgical biopsies or MRI scans. Subsequent TAEUS offerings are expected to be implemented via a second generation hardware platform that can run multiple clinical software applications that we will offer TAEUS users for a one-time licensing fee – adding ongoing customer value to the TAEUS platform and a growing software revenue stream for our Company.

Each of our TAEUS platform applications will require regulatory approvals before we are able to sell or license the application. Based on certain factors, such as the installed base of ultrasound systems, availability of other imaging technologies, such as CT and MRI, economic strength and applicable regulatory requirements, we intend to seek initial approval of our applications for sale in the European Union, followed by the United States, and China.

We believe that our NAFLD TAEUS application will qualify for sale in the European Union as a Class IIa medical device. As a result, we will be required to obtain a CE mark for our NAFLD TAEUS application before we can sell the application in the European Union. Existing regulations would not require us to conduct a clinical trial to obtain a CE mark for this application. Nonetheless, for commercial reasons and to support our CE mark application we plan to conduct a limited (less than 10 person) trial to demonstrate our NAFLD TAEUS application's ability to distinguish fat from lean tissue. Based on our understanding of applicable regulations and consultations with medical device regulatory consulting firms and medical device contract engineering firms, we expect to receive a CE mark for our NAFLD TAEUS application within 12 to 15 months after the completion of this offering. However, this estimate is subject to uncertainty and there can be no assurance that this process will not take longer or be more costly than we expect. While we are seeking a CE mark for our NAFLD TAEUS application, we will also prepare to expand our sales, marketing and customer support capabilities, so that we can commence initial sales of the application in the European Union once we have received this regulatory approval and raised sufficient funds to finance commercialization. Following receipt of such CE mark and placement of initial systems with researchers and universities, we plan to conduct one or more clinical studies to further demonstrate this application's capabilities. As described above in "Use of Proceeds," we believe the proceeds from this offering will be sufficient for us to be able to complete the process to obtain a CE mark for our NAFLD TAEUS application, to prepare for the commercialization of this application in the EU and to obtain initial clinical data for this application. However, we will require additional funds to commercialize this application in the European Union and to implement the balance of our business plan thereafter.

After the process of obtaining a CE mark for our NAFLD TAEUS application is complete and if we are able to raise additional capital, we intend to prepare for submission to the U.S. Food and Drug Administration, or the FDA, an application under the Food, Drug and Cosmetic Act, or the FD&C Act, to sell our NAFLD TAEUS application in the U.S. We anticipate that the application, as well as those for our other TAEUS applications, will be submitted for approval under Section 510(k) of the FD&C Act. In connection with our initial submission to the FDA, we believe we will be required to provide imaging verification and validation testing data, as well as the data from the limited trial we plan to conduct to support our CE mark application. We expect that our initial FDA clearance will allow us to sell the NAFLD TAEUS application in the U.S. with general imaging claims. However, we will need to obtain additional FDA clearances to be able to make diagnostic claims for fatty tissue content determination. Accordingly, to support our commercialization efforts we expect that, following receipt of our initial FDA clearance, we will submit one or more additional applications to the FDA, each of which will need to include additional clinical trial data, so that following receipt of the necessary clearances we may make those diagnostic claims. Based on our understanding of applicable regulations and consultations with medical device regulatory consulting firms and medical device contract engineering firms, we expect to submit our initial FDA application to the FDA approximately fifteen months after the completion of this offering and that the FDA will make a final determination on our application approximately six months after it is submitted. However, these estimates are subject to uncertainty and there can be no assurance that these processes will not take longer or be more costly than we expect. In addition, the proceeds from this offering will not be sufficient for us to complete the FDA application process and, as a result, we will need to raise additional capital in order to obtain FDA approval.

Financial Operations Overview

Revenue

To date our revenue has been generated by the placement and sale of our Nexus 128 system for use in pre-clinical applications.

Cost of Goods Sold

Our cost of goods sold is related to our direct costs associated with the development and shipment of our thermoacoustic imaging systems placed in pre-clinical settings.

Research and Development Expenses

Our research and development expenses primarily include wages, fees and equipment for the development of our TAEUS technology platform and our proposed applications. Additionally, we incur certain costs associated with the protection of our products and inventions through a combination of patents, licenses, applications and disclosures.

Sales and Marketing Expenses

Sales and marketing expenses consist primarily of advertising, marketing and consulting expenses and headcount. Currently, our marketing efforts for our pre-clinical business are through distributors in China, the European Union, Australia, Korea and the United Kingdom, our website, and attendance of key industry meetings. In connection with the commercialization of our TAEUS applications, we expect to build a small sales and marketing team to train and support global ultrasound distributors, as well as execute traditional marketing activities such as promotional materials, electronic media and participation in industry conferences.

General and Administrative Expenses

General and administrative expenses consist primarily of salaries and related expenses for our management and personnel, and professional fees, such as accounting, consulting and legal.

Critical Accounting Policies and Estimates

Use of Estimates

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

Management makes estimates that affect certain accounts including deferred income tax assets, accrued expenses, fair value of equity instruments and reserves for any other commitments or contingencies. Any adjustments applied to estimates are recognized in the period in which such adjustments are determined.

Share-based Compensation

Our 2016 Omnibus Incentive Plan, or our Incentive Plan, which has been approved by our board of directors, permits the grant of share options and shares to our employees, consultants and non-employee members of our board of directors for up to an estimated 385,252 shares of common stock (to be an amount equal to 18% of our total issued and outstanding shares of common stock following the completion of this offering on a fully diluted basis, including shares issuable under our Incentive Plan, shares issuable upon the conversion into shares of common stock of all outstanding securities that are convertible by their terms into shares of common stock and the exercise of all options and warrants exercisable for shares of common stock, and shares issuable upon exercise in full of the underwriters' warrants to purchase shares of common stock and the underwriters' over-allotment option). We record share-based compensation in accordance with the provisions of the Share-based Compensation Topic of the FASB Codification. The guidance requires the use of option-pricing models that require the input of highly subjective assumptions, including the option's expected life and the price volatility of the underlying stock. The fair value of each option grant is estimated on the date of grant using the Black-Scholes option valuation model, and the resulting charge is expensed using the straight-line attribution method over the vesting period. We have elected to use the calculated value method to account for the options we issued in 2014. A nonpublic entity that is unable to estimate the expected volatility of the price of its underlying shares may measure awards based on a "calculated value," which substitutes the volatility of appropriate public companies (representative of the company's size and industry) as a bench mark for the volatility of the entity's own share price. There is no existing active market for our common stock. We have used the historical closing values of these companies to estimate volatility, which was calculated to be 90%.

Stock compensation expense recognized during the period is based on the value of share-based awards that were expected to vest during the period adjusted for estimated forfeitures. The estimated fair value of grants of stock options and warrants to non-employees is charged to expense, if applicable, in the financial statements.

Recent Accounting Pronouncements

See Footnote 2 of the financial statements for a discussion of recently issued accounting standards.

Recent Financial Results

We have not yet completed preparation of financial statements for the quarter ending March 31, 2017, but based on preliminary data available to us, we expect to report no revenue for the quarter ending March 31, 2017 and a total net loss of approximately $650,000 for the quarter ending March 31, 2017.

This preliminary financial information is based on current expectations and is subject to quarter-end closing adjustments. Actual results may differ. This preliminary financial data has been prepared by and is the responsibility of our management. RBSM LLP has not audited, reviewed, compiled or performed any procedures with respect to this preliminary financial data, and accordingly, RBSM LLP does not express an opinion or any other form of assurance with respect thereto. For a discussion of certain risks that may cause our results of operations to differ from our expectations, see “Risk Factors” elsewhere in this prospectus.

Results of Operations

Years ended December 31, 2016 and 2015

Revenues

We had revenue of $515,582 for the year ended December 31, 2016, as compared to $1,410,065 for the year ended December 31, 2015, due to our limited resources and our decision to focus those resources on developing our TAEUS applications.

Cost of Goods Sold

Cost of goods sold was $235,878 and $666,233 for the years ended December 31, 2016 and 2015, respectively. Gross margin was approximately 54% and 53% for the years ended December 31, 2016 and 2015, respectively. Cost of goods sold decreased as a result of a decrease in units sold during the year. The increase in gross margin resulted from a decrease in the cost of certain parts used to assemble the systems sold. We expect increased margins in 2017 due to increased retail prices.

Research and Development

Research and development expenses were $495,377 for the year ended December 31, 2016, as compared to $1,038,878 for the year ended December 31, 2015, a decrease of $543,501, or 52%. The costs include primary wages, fees and equipment for the development of our TAEUS product line. Research and development expenses declined due to a reduction in spending to conserve cash. Following completion of the offering we expect that our research and development expenses will increase significantly due to our efforts to develop our TAEUS applications.

Sales and Marketing

Sales and marketing expenses were $34,130 for the year ended December 31, 2016, as compared to $50,635 for the year ended December 31, 2015, a decrease of $16,505, or 33%. The decrease was primarily due to reduced commissions paid on the sale of our Nexus 128 system. Currently our marketing efforts for our pre-clinical business are through distributors in China, the European Union, Australia and the United Kingdom, our website and attendance of key industry meetings. Our future clinical business will involve hiring and training additional staff to support our sales efforts. As we seek to complete the development and commercialization of our TAEUS applications, we intend to build a small sales and marketing team to train and support global ultrasound distributors, as well as execute traditional marketing activities such as promotional materials, electronic media and participation in industry conferences.

General and Administrative

Our general and administrative expenses for the year ended December 31, 2016 were $1,541,956, an increase of $319,068, or 26%, compared to $1,222,888 for the year ended December 31, 2015. Our wage and related expenses for the year ended December 31, 2016 were $705,556, compared to $738,819 for the year ended December 31, 2015. Wage and related expenses in 2016 included $194,326 of stock compensation expense related to the issuance and vesting of options, compared to $273,837 of stock compensation expense for 2015. Our professional fees for the year ended December 31, 2016 were $601,671, an increase of $367,714, or 157%, compared to $233,957 for the year ended December 31, 2015. We expect that our general and administrative expenses will increase significantly as a result of our becoming a public company.

Net loss

As a result of the foregoing, for the year ended December 31, 2016, we recorded a net loss of $2,775,369 compared to a net loss of $2,279,204 for the year ended December 31, 2015.

Liquidity and Capital Resources

To date, we have generated only limited revenues from sales of our Nexus 128 system. We have funded our operations to date through the private sale of our equity securities. As of December 31, 2016, we had $144,953 in cash.

The financial statements included in this prospectus have been prepared assuming the Company will continue as a going concern, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. As reflected in the accompanying financial statements, during the year ended December 31, 2015, the Company incurred a net loss of $2,279,204, used cash in operations of $842,727, and at December 31, 2015, the Company had a stockholders’ equity of $250,300.

Also, as reflected in the accompanying financial statements, during the year ended December 31, 2016, the Company incurred a net loss of $2,775,369, and used cash in operations of $1,315,623. At December 31, 2016, the Company had a stockholders' deficit of $893,767. These and other factors raise substantial doubt about the Company's ability to continue as a going concern. The financial statements do not include any adjustments that might be necessary should the Company be unable to continue as a going concern.

Operating Activities

During the year ended December 31, 2015, the Company used $842,727 of cash in operating activities primarily as a result of its net loss of $2,279,204, offset in part by additional warrants issued during the warrant exchange program of $686,343, net changes in operating assets and liabilities of $343,072, $72,225 in depreciation and amortization expense, $309,837 in non-cash stock compensation expense, and loss on warrant exercise of $25,000.

During the year ended December 31, 2016, the Company used $1,315,623 of cash in operating activities primarily as a result of its net loss of $2,775,369, offset by amortization of discount of convertible debt of $899,976, share-based compensation of $230,326, $64,936 in depreciation and amortization expenses, additional warrants issued during the warrant exchange program of $5,823, and net changes in operating assets and liabilities of $254,981.

Investing Activities

During the year ended December 31, 2015, we acquired equipment in the aggregate amount of $133,811.

There were no investing activities for the year ended December 31, 2016.

Financing Activities

Financing activities provided $839,224 to us during the year ended December 31, 2015 from the issuance of common stock.

During the year ended December 31, 2016, financing activities provided $1,441,448 including $5,000 from common stock issued for cash, $50,000 in proceeds from notes payable, $132,000 in proceeds from issuance of convertible notes to related parties, and $1,254,448 in proceeds from the issuance of convertible notes.

Funding Requirements

We have not completed development of our TAEUS technology platform applications. We expect to continue to incur significant expenses for the foreseeable future. We anticipate that our expenses will increase substantially as we:

- advance the engineering design and development of our NAFLD TAEUS application;
- prepare applications required for marketing approval of our NAFLD TAEUS application in the European Union and the United States;
- seek to hire a small internal marketing team to engage and support channel partners and clinical customers for our NAFLD TAEUS application;
- commence marketing of our NAFLD TAEUS application;
- advance development of our other TAEUS applications; and
- add operational, financial and management information systems and personnel, including personnel to support our product development, planned commercialization efforts and our operation as a public company.

We believe that the net proceeds of this offering, together with our existing cash, will be sufficient for us to fund the development, regulatory approval and initial commercialization of our NAFLD TAEUS application in the European Union. It is possible that we will not achieve the progress that we expect because the actual costs and timing of completing the development and regulatory approvals for a new medical device are difficult to predict and are subject to substantial risks and delays. We have no committed external sources of funds. The expected net proceeds of this offering are not expected to be sufficient for us to complete the commercialization of our NAFLD TAEUS application or to complete the development of any other TAEUS application and we will need to raise substantial additional capital for those purposes. As a result, we will need to finance our future cash needs through public or private equity offerings, debt financings, corporate collaboration and licensing arrangements or other financing alternatives. Our forecast of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement and involves risks and uncertainties, and actual results could vary as a result of a number of factors, including the factors discussed in the section entitled “Risk Factors” and elsewhere in this prospectus. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect.

Until we can generate a sufficient amount of revenue from our TAEUS platform applications, if ever, we expect to finance future cash needs through public or private equity offerings, debt financings or corporate collaborations and licensing arrangements. Additional funds may not be available when we need them on terms that are acceptable to us, or at all. If adequate funds are not available, we may be required to delay, reduce the scope of or eliminate one or more of our research or development programs or our commercialization efforts. To the extent that we raise additional funds by issuing equity securities, our stockholders may experience additional dilution, and debt financing, if available, may involve restrictive covenants. To the extent that we raise additional funds through collaborations and licensing arrangements, it may be necessary to relinquish some rights to our technologies or applications or grant licenses on terms that may not be favorable to us. We may seek to access the public or private capital markets whenever conditions are favorable, even if we do not have an immediate need for additional capital at that time.

Off Balance Sheet Transactions

We do not have any off balance sheet transactions.

BUSINESS

Overview

We have commercialized an enhanced ultrasound technology for the pre-clinical research market and are leveraging that expertise to develop technology for increasing the capabilities of clinical diagnostic ultrasound to broaden patient access to the safe diagnosis and treatment of a number of significant medical conditions in circumstances where expensive X-ray computed tomography, or CT, and magnetic resonance imaging, or MRI, technology is unavailable or impractical.

Since 2010, we have marketed and sold our Nexus 128 system, which combines light-based thermoacoustics and ultrasound, to address the imaging needs of researchers studying disease models in pre-clinical applications. Building on our expertise in thermoacoustics, we have developed a next-generation technology platform — Thermo Acoustic Enhanced Ultrasound, or TAEUS — which is intended to enhance the capability of clinical ultrasound technology and support the diagnosis and treatment of a number of significant medical conditions that require the use of expensive CT or MRI imaging or where imaging is not practical using existing technology. We believe that our TAEUS technology, which can be used with existing ultrasound equipment and incorporated into next-generation ultrasound systems, has the potential to make advanced imaging available in certain applications to a wider range of patients on a more cost-effective basis than is possible using existing CT and MRI technology. We expect to continue to sell our Nexus 128 system to maintain a base level of revenue, but believe the market potential for our clinical systems is much higher.

Diagnostic Imaging Technologies

Diagnostic imaging technologies such as CT, MRI and ultrasound allow physicians to look inside a person's body to guide treatment or gather information about medical conditions such as broken bones, cancers, signs of heart disease or internal bleeding. The type of imaging technology a physician uses depends on a patient's symptoms and the part of the body being examined. CT technology is well suited for viewing bone injuries, diagnosing lung and chest problems, and detecting cancers. MRI technology excels at examining soft tissue in ligament and tendon injuries, spinal cord injuries, and brain tumors. CT scans can take as little as 5 minutes, while an MRI scan can take up to 30 minutes.

Unfortunately, while CT and MRI systems are versatile and create high quality images, they are also expensive and not always accessible to patients. A CT system costs approximately $1 million and an MRI system can cost up to $3 million. CT and MRI systems are large and can weigh several tons, typically requiring significant modifications to existing healthcare facilities to safely handle the load. Because of their size and weight, CT and MRI systems are usually fixed-in-place at major medical facilities. As a result, they are less accessible to primary care and rural clinics, economically developing markets, and patient bedsides. There are only approximately 64,000 CT systems and 32,000 MRI systems in the world, approximately 50% of which are located in the U.S. and Japan.

While CT and MRI systems create high quality images, their use is not always practical. For example, the diagnosis and treatment of the estimated 1.4 billion patients suffering from Non-Alcoholic Fatty Liver Disease, or NAFLD, requires ongoing surveillance of the patients' livers to assess the progression of the disease and the efficacy of treatment. However, the use of CT and MRI systems to perform that surveillance is impractical for a number of reasons, including the high cost of the scan, the limited availability of CT and MRI systems and the required use of contrast agents, including those containing radioactive substances, that can cause allergic reactions and reduced kidney functions. Patient exposure to the ionizing radiation generated by a CT system must be limited for safety reasons. Similarly, because of the strong magnetic field created by an MRI machine, patients with metal joint replacements or cardiac pacemakers cannot be imaged with an MRI system.

Because of CT and MRI's limited availability and practical limitations, a patient who would otherwise be a candidate for CT or MRI scanning must often rely on less effective or less practical methods. For example, MRI scans are not typically used to measure tissue temperature during thermoablative (temperature based) surgery. Instead, physicians use printed manufacturer guidelines to time the thermal surgery or insert surgical temperature probes in an attempt to guide treatment. As a result, the treatment is often imprecise or comes with additional risks, such as infection.

These limitations have led to a decrease in the number of CT scans. According to the American College of Radiology, the overall number of CT scans performed in the United States under Medicare Part B fell approximately 8% from 2009 to 2014. The decline in CT scans has been accompanied by increased use of alternative scanning technologies. The American College of Radiology reported that the overall number of ultrasound scans performed in the United States under Medicare Part B increased approximately 6% from 2009 to 2014. During the same period MRI usage increased by 5%, but remains significantly below the use of ultrasound technology, even in the United States.

Ultrasound Technology

An ultrasound machine transmits sound waves, which bounce off tissues, organs and blood in the body. The ultrasound machine captures these echoes and uses them to create an image. Ultrasound technology excels at imaging the structure of internal organs, muscles and bone surfaces.

Ultrasound systems are more broadly available to patients than either CT or MRI systems. There are approximately 800,000 ultrasound systems globally in use today. Ultrasound systems are relatively inexpensive compared to CT and MRI systems, with smaller portable ultrasound systems costing as little as $10,000 and new cart-based ultrasound systems costing b etween $75,000 and $125,000 . Ultrasound systems are also more mobile than CT and MRI systems and many are designed to be moved by an operator from room to room, or closer to patients. Ultrasound technology does not present the same safety concerns as CT and MRI technology, since ultrasound does not emit ionizing radiation and ultrasound contrast agents are considered to be generally safe.

Due to its utility, cost-effectiveness and safety profile, ultrasound imaging is frequently used in a physician's examination room or at a patient's bedside as a first-line diagnostic tool, which has resulted in an overall increase in the number of ultrasound scans performed. According to the American College of Radiology, the overall number of ultrasound scans performed in the United States under Medicare Part B increased 6% from 2009 to 2014 (while CT exams declined 8% during the same period).

However, ultrasound's imaging capabilities are more limited compared to CT and MRI technology. For example, ultrasound systems cannot measure tissue temperature during thermal ablation surgery, or quantify fat to diagnose early stage liver disease -- instances where CT and MRI systems are commonly used.

Unmet Need

We believe that the limited availability of high-utility and cost-effective imaging technology represents a significant unmet medical need. We believe that expanding the capability of ultrasound technology to perform more of the imaging tasks presently available only on expensive CT and MRI systems will satisfy this unmet need.

Our Solution – Thermo-Acoustic Enhanced Ultrasound, or TAEUS

Our commercially available Nexus 128 system and our Thermo-Acoustic Enhanced Ultrasound, or TAEUS technology, each use a pulsed energy source – near-infrared light and radio-frequency, or RF, respectively – to generate ultrasonic waves in tissue. These waves are then detected with ultrasound equipment and used to create high-contrast images using our proprietary algorithms. Unlike conventional ultrasound, which creates images based on the scattering properties of tissue, thermoacoustic imaging provides tissue absorption maps of the pulsed energy, similar to those generated by CT scans. Ultrasound is only utilized to transmit the absorption signal to the imaging system outside of the body.

Since 2010 we have marketed our Nexus 128 system to address the imaging needs of researchers studying disease models in pre-clinical applications. The Nexus 128 uses near-infrared light combined with ultrasound to generate 3D images of tumors in laboratory mice. We believe the Nexus 128 is the only commercially available fully 3D thermoacoustic imaging system.

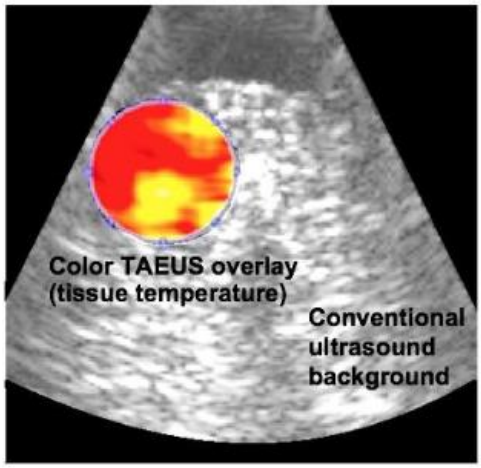
Sales of the Nexus 128 system were approximately $1.4 million in 2015 and $515,000 in 2016. Our Nexus 128 system is used in a number of leading global academic research centers, including Stanford University, The University of Michigan, Shanghai Jiao Tong University, and Purdue University.

While our Nexus 128 system is suited for small animal research, the near-infrared light energy used in our Nexus 128 system only penetrates tissues up to 3cm, limiting its utility beyond shallow-depth human dermatological or breast applications. Additionally, blood-filled organs, such as the liver, absorb most of the near-infrared light, making it difficult to generate an accurate image.

Our TAEUS Technology Platform

To increase the utility of our thermoacoustic technology, in 2013 we began to develop our TAEUS technology platform. Unlike the near-infrared light pulses used in our Nexus 128 system, our TAEUS technology uses RF pulses to stimulate tissues, using a small fraction of the energy transmitted into the body during an MRI scan. Using RF energy enables our TAEUS technology to penetrate deep into tissue, enabling the imaging of human anatomy at depths equivalent to those of conventional ultrasound. The RF pulses are absorbed by tissue and converted into ultrasound signals, which are detected by an external ultrasound receiver and a digital acquisition system that is part of the TAEUS system. The detected ultrasound is processed into images using our proprietary algorithms and overlaid in real time onto conventional gray-scale ultrasound images. An example of a TAEUS image overlay is shown below:

Image below: Real-time ex-vivo bovine tissue temperature analysis overlaid on traditional ultrasound image.



Our RF-based thermoacoustics are not adversely affected by blood-filled organs, enabling our TAEUS technology to be used in clinical liver applications, among others.

After approval, our TAEUS technology can be added as an accessory to existing ultrasound systems, helping to improve clinical decision-making on the front lines of patient care, without requiring new clinical workflows or large capital investments. We are also developing TAEUS for incorporation into new ultrasound systems, primarily through our collaboration with GE Healthcare, described more fully below.

We believe that our TAEUS technology has the potential to add a number of new capabilities to conventional ultrasound and thereby enhance the utility of both existing and new ultrasound systems and extend the use of ultrasound technology to circumstances that either require the use of expensive CT or MRI imaging systems or where imaging is not practical using existing technology. To demonstrate the capabilities of our TAEUS platform, we have conducted various internal ex-vivo laboratory experiments and have also conducted limited internal in-vivo large animal studies. However, we have not yet conducted any human studies and these capabilities are not supported by clinical data that we have gathered in pursuit of obtaining regulatory approvals or that was subject to regulatory oversight and guidance. In our ex-vivo and in-vivo testing, we have demonstrated that the TAEUS platform has the following capabilities and potential clinical applications:

- Tissue Composition: Our TAEUS technology enables ultrasound to distinguish fat from lean tissue. This capability would enable the use of TAEUS-enhanced ultrasound for the early identification, staging and monitoring of NAFLD, a precursor to liver fibrosis, cirrhosis and liver cancer.
- Temperature Monitoring: Our TAEUS technology enables traditional ultrasound to visualize changes in tissue temperature, in real time. This capability would enable the use of TAEUS-enhanced ultrasound to guide thermoablative therapy, which uses heat or cold to remove tissue, such as in the treatment of cardiac atrial fibrillation, or removal of cancerous liver and kidney lesions, with greater accuracy.
- Vascular Imaging: Our TAEUS technology enables ultrasound to view blood vessels from any angle, using only a saline solution contrasting agent, unlike Doppler ultrasound, which requires precise viewing angles. This capability would enable the use of TAEUS-enhanced ultrasound to easily identify arterial plaque or malformed vessels.
- Tissue Perfusion: Our TAEUS technology enables ultrasound to image blood flow at the capillary level in a region, organ or tissue. This capability could be used to assist physicians in characterizing microvasculature fluid flows symptomatic of damaged tissue, such as internal bleeding from trauma, or diseased tissue, such as certain cancers.

Because of the large number of traditional ultrasound systems currently in global use, we are first developing our TAEUS technology for sale as an aftermarket accessory that works with existing ultrasound systems. Because our TAEUS technology is designed to enhance the utility of, not replace, conventional ultrasound, we believe healthcare providers will be able to increase the utilization of, and generate new revenue from, their existing ultrasound systems once we obtain required regulatory approval for specific applications. Based on our design work and our understanding of the ultrasound accessory market, we intend to price our initial NAFLD TAEUS application at a price point approximating one-half of the price of a new cart-based ultrasound system, or approximately $40,000 to $50,000, which should enable purchasers to recoup their investment in less than one year by performing a relatively small number of additional ultrasound procedures. We further believe that clinicians will be attracted to our technology because it will enable them to perform more procedures with their existing ultrasound equipment, thereby retaining more imaging patients in their clinics rather than referring patients out to a regional medical center for a CT or MRI scan.

Endra's first clinical product will interface with a conventional ultrasound scanner, utilizing the scanner's B-mode imaging to guide the selected region for assessment of liver fat content. The following sub-systems will comprise Endra's first generation product.

Radio frequency (RF) source and computer:

The RF source consists of a low power waveform generator and an amplifier. Together, these components provide the characteristic pulses required to excite thermoacoustic signals in tissue. The computer provides processing capability to both utilize the conventional ultrasound data for navigation to the measurement site of interest, and the calculations required to convert digitized thermoacoustic signals to measurements of fat in liver tissue. The entire sub-system is expected to be approximately the size of a desk-side computer. The entire sub-system will reside in a single enclosure, on wheels, and sit adjacent to the ultrasound imaging system.

Specialized Transducer:

A single channel 'receive only' ultrasound transducer is specifically designed and optimized for thermoacoustic imaging. The transducer sub-system will detect thermoacoustic signals excited by the RF source within the liver. The transducer assembly includes electronics for signal amplification, digitization, and signal processing. The specialized transducer will attach to the conventional ultrasound probe used for liver imaging.

RF Applicator:

The RF applicator transmits pulses of energy, provided by the RF source, into tissue. The applicator contacts the patient's skin in proximity of the target region for measurement.

A second generation product is expected to provide two dimensional imaging with a transducer composed of multiple receive elements. The RF source and applicator will be similar to those in the first generation product but the multi-element transducer will allow for multiple applications including: reading tissue composition, temperature, vascular flow, tissue perfusion, and other potential applications. Ultimately, we expect our technology will be incorporated into conventional ultrasound systems and our business model will transition from producing stand-alone systems to licensing our technology, IP and specialized components to ultrasound OEMs. Existing ultrasound equipment already includes power supplies, computation, high speed electronics, and ultrasound transducers, which may be leveraged by our thermoacoustic imaging applications. The RF source and applicator are the principal hardware components that will be added to OEM ultrasound systems for the OEM fully integrated form of our product.

We are following a model that mirrors the approach used by companies in the past to introduce new ultrasound imaging capabilities to existing conventional ultrasound scanners. Color Doppler, elastography, 3-D imaging, and high channel count systems were all introduced by new companies (not already involved in conventional ultrasound imaging). Historically, ultrasound imaging has grown through the introduction of unique technology and capabilities that expanded the applications and use of clinical ultrasound in a form that often added separate hardware to existing ultrasound systems. Ultimately, as these new technologies gained acceptance in the marketplace they were incorporated into OEM designed and built systems that were sold by the leading ultrasound imaging vendors.

Image: Illustration of a typical cart-based ultrasound system (left) with our TAEUS technology depicted to the right.

Ultrasound Market

Sales of ultrasound diagnostic equipment were approximately $4 billion globally in 2014 and are expected to grow at approximately 4.4% annually. There are approximately 800,000 installed systems generating over 400 million annual diagnostic ultrasound procedures globally. Additionally, an estimated 30,000 to 50,000 new and replacement systems are sold into the market each year. These numbers include both portable and cart-based ultrasound systems, and cover all types of diagnostic ultrasound procedures, including systems intended for cardiology, prenatal and abdominal use. We do not intend to address low-cost, portable ultrasound systems and systems focused on applications, such as prenatal care, where we believe our TAEUS technology will not substantially impact patient care. Accordingly, we define our addressable market for one or more of our TAEUS applications at approximately 300,000 cart-based ultrasound systems currently in use throughout the world.

We believe that demand for ultrasound systems is driven primarily by the following factors:

- Population growth and age demographics that increase the demand for diagnostic screening for cancer, cardiology, and prenatal applications.
- Economic development broadening investment in healthcare in previously underserved markets such as China and Latin America, where ultrasound technology has significant appeal due to its price point and flexibility at point-of-care.
- Expanding ultrasound applications and improving image quality that drive demand for new ultrasound technologies, such as software enhancements, bi-axial probes, and dedicated single application systems.
- Positive insurance reimbursement rate trends for ultrasound diagnostics due to the technology’s safety and cost-effectiveness.

Potential Clinical Applications for our TAEUS Technology

Early Diagnosis and Monitoring of Non-Alcoholic Fatty Liver Disease, or NAFLD

Our first TAEUS platform application will focus on quantifying fat in the liver and stage progression of NAFLD which, untreated, can progress to Non-Alcoholic Steato-Hepatitis, or NASH, cirrhosis and liver cancer. In 2011, over 1.4 billion people were affected by NAFLD/NASH. The World Gastroenterology Organisation considers NAFLD/NASH a global pandemic affecting rich and poor countries alike. Obesity, hepatitis, and diabetes are leading contributors to the development of NAFLD.

Untreated, an estimated 20% of NAFLD cases progress to NASH, a condition in which liver fat causes inflammation and decreased liver function, resulting in fatigue, weight loss, muscle pain and abdominal pain.

Approximately 25% of NASH cases progress to liver cirrhosis, in which liver inflammation causes scar tissue which eventually prevents the liver from functioning properly. The scar tissue blocks the flow of blood through the liver and slows the processing of nutrients, hormones, drugs, and naturally produced toxins. It also slows the production of proteins and other substances made by the liver. Once a patient develops cirrhosis of the liver, the only life-saving therapy is a liver transplant. Additionally, cirrhosis patients may develop liver cancer. In 2015, the World Health Organization ranked liver cancer as the second highest cause of cancer death, after lung cancer, killing 745,000 people annually. Because of the increased incidence of obesity, hepatitis and diabetes throughout the world, NAFLD has become the most common chronic liver disease and an important cause of cirrhosis and liver cancer worldwide.

Despite the increased incidence of NAFLD and its role in the development of NASH, cirrhosis and liver cancer, we believe that no low-cost, accurate and safe method exists for measuring fat in the liver. Current liver enzyme blood tests are indicative, but cannot reliably confirm early stage NAFLD or NASH, and liver enzyme levels are normal in a large percentage of patients with NAFLD. Existing ultrasound technology can only measure fat qualitatively in the liver at moderate to severe levels, typically greater than 30% liver fat, and ultrasound has low accuracy when used on obese patients. While early stage NAFLD and NASH can be confirmed by an MRI scan, an MRI scan is expensive, and MRI systems are not widely available or practical for many patients. A surgical biopsy can be used to confirm NAFLD and NASH, but is also expensive, involves a painful procedure and exposes patients to the risk of infection. Furthermore, MRIs and surgical biopsies are impractical for repeated screening and monitoring of liver disease. We believe these limitations negatively impact the diagnosis and treatment of patients with NAFLD.

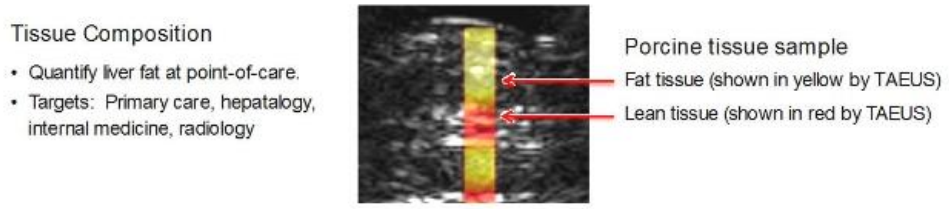
Patients diagnosed with NAFLD and related liver diseases are typically treated with therapies such as statins, insulin sensitizers and other compounds and are encouraged to adopt lifestyle changes to improve their overall health.

A significant number of pharmaceutical compounds are in development by companies such as Bristol-Myers Squibb Company, Intercept Pharmaceuticals, Inc., Gilead Sciences, Inc., Genfit SA, Galectin Therapeutics Inc., Conatus Pharmaceuticals Inc., NuSirt Sciences Inc., Tobira Therapeutics, Inc. and Immuron Limited.

Billions of dollars are spent annually on the diagnosis and treatment of NAFLD and related liver diseases. Identification and staging of NAFLD is central to determining the course of treatment. In addition, patients receiving treatment for NAFLD-spectrum liver diseases must continue to be monitored to assess disease progression and the efficacy of treatment. Because of the high cost and limited global availability, CT and MRI technology is not typically used for this function.

We believe our TAEUS technology will enable primary care physicians, radiologists and hepatologists to diagnose NAFLD earlier and monitor patients with NAFLD-spectrum liver diseases more accurately and cost-effectively than is possible with existing technology.

Image below: Ex-vivo TAEUS tissue composition analysis overlaid on traditional ultrasound image.



Temperature Monitoring of Thermoablative Surgery

We also intend to develop a TAEUS platform application to guide thermal ablation surgery, such as in the treatment of cardiac atrial fibrillation, chronic pain and lesions of the liver, thyroid, kidneys and other soft tissues. We plan to target clinical users of thermoablative technology, including interventional radiologists, cardiologists, gynecologists and surgical oncologists.

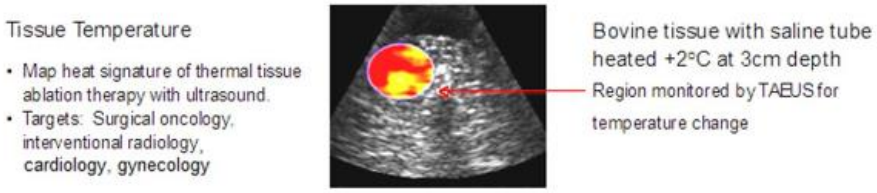
Thermoablation involves the use of heat or cold to remove malfunctioning or diseased tissue in surgical oncology, cardiology, neurology, gynecology, and urology applications. Thermoablative technologies include RF, microwave, laser and cryogenic ablation. The worldwide market for RF surgical ablation procedures alone was estimated in 2015 to be $3.7 billion per annum, generating over 5 million annual RF ablation procedures and growing at approximately 18% annually. We believe that the growth of this market is driven primarily by the aging global population requiring more cardiac and cancer procedures, as well as the relative ease-of-use and low cost of thermoablative technologies when compared to open surgery.

However, RF and other thermoablative surgery technologies pose risks, including under-treatment of diseased tissue and unintended thermal damage to areas outside the treatment area. For example, it has been reported that patients receiving RF ablation of liver tumors have experienced thermal injury to the diaphragm, gallbladder, bile ducts and gastrointestinal tract, some of which have resulted in patient deaths.

Clinicians must rely on printed manufacturer guidelines to plan procedures using thermal ablation technologies or, when available, monitor tissue temperature changes in real-time with MRI imaging or surgical temperature probes. We believe these existing methods either lack real-time precision or are impractical due to cost, poor availability and other factors.

We believe that the ability to visualize changes in tissue temperature in real time could potentially enhance the effectiveness and safety of thermoablation therapies and that our TAEUS technology platform combined with traditional ultrasound has the potential to guide thermoablation surgery more cost-effectively and more accurately than existing methods.

Image below: Real-time ex-vivo TAEUS tissue temperature analysis overlaid on traditional ultrasound image.



Vascular Imaging

We believe that our TAEUS technology can be used to image blood vessels and distinguish them from the surrounding tissue. In addition to our NAFLD and thermoablation applications, we intend to develop a cardiovascular application based on our TAEUS technology that, with the use of a standard saline contrast agent, can enable existing ultrasound systems to perform a number of cardiovascular diagnostic functions, such as identifying arterial plaque or blocked or malformed vessels, as well as safely guiding biopsies away from vital vasculature.

Conventional ultrasound imaging systems use Doppler imaging in a variety of vascular applications. Doppler ultrasound, which images the velocity of blood, is effective in larger vessels and regions where blood velocity is high. However, Doppler ultrasound is not sufficiently sensitive for use in very small vessels or in vascular imaging applications where blood velocities are very low. For these applications, contrast enhanced CT and MRI angiography is used which requires the patient to be injected with a contrast agent, iodinated compounds and gadolinium, respectively. Contrast-enhanced CT and MRI scans both require referral for examination after initial screening with ultrasound and carry risks associated with their respective contrast agents. We believe that our TAEUS platform application has the potential to offer the advantages of CT and MR contrast enhanced imaging at the point of care using only a safe electrolyte solution as the contrast agent.

Tissue Perfusion or "Leakiness"

We believe that our TAEUS technology can be used to image tissue perfusion, or the absorption of fluids into an organ or tissue. We intend to develop an application for our TAEUS platform that would enable ultrasound detection of microvasculature fluid flows symptomatic of tissue compromised by trauma or disease.

When a person's body is affected by disease or trauma, blood and other fluids may leak from damaged tissues in subtle ways. Traditional ultrasound cannot effectively image these disruptions in microvascular permeability, but we believe ultrasound combined with our TAEUS technology can.

We believe that using our TAEUS technology physicians will be able to quickly and clearly see tissue compromised by disease, such as cancer, or trauma, especially with the use of a standard saline contrast agent, when CT or MRI is not readily available.

Collaboration with GE Healthcare

On April 22, 2016, we entered into a Collaborative Research Agreement with General Electric Company, acting through its GE Healthcare business unit and the GE Global Research Center, or GE Healthcare. Under the terms of the agreement, GE Healthcare has agreed to assist us in our efforts to commercialize our TAEUS technology for use in a fatty liver application by, among other things, providing equipment and technical advice, and facilitating introductions to GE Healthcare clinical ultrasound customers. In return for this assistance, we have agreed to afford GE Healthcare certain rights of first offer with respect to manufacturing and licensing rights for the target application. More specifically, we have agreed that, prior to commercially releasing our TAEUS technology for a fatty liver application, we will offer to negotiate an exclusive ultrasound manufacturer relationship with GE Healthcare for a period of at least one year of commercial sales. The commercial sales would involve, within our sole discretion, either our company commercially selling GE Healthcare ultrasound systems as the exclusive ultrasound system with their TAEUS fatty liver application embedded, or GE Healthcare being the exclusive ultrasound manufacturer to sell ultrasound systems with the TAEUS fatty liver application technology embedded.

The agreement with GE Healthcare does not prevent us from selling our TAEUS fatty liver application technology to distributors or directly to non-manufacturer purchasers.

Additionally, the agreement provides that prior to offering to license any of our TAEUS fatty liver application intellectual property to a third party, we will first offer to negotiate to license our TAEUS fatty liver application intellectual property to GE Healthcare.
Finally, we agreed that prior to selling any equity interests in our company to a healthcare device manufacturer, we will first offer to negotiate in good faith to sell such equity interests to GE Healthcare.

The agreement is subject to termination by either party upon not less than 60 days' notice. On April 21 2017, we and GE Healthcare entered into an amendment to our agreement, extending its term by one year to April 22, 2018.

Intellectual Property

We rely on a combination of patent, copyright, trademark and trade secret laws and other agreements with employees and third parties to establish and protect our proprietary intellectual property rights. We require our officers, employees and consultants to enter into standard agreements containing provisions requiring confidentiality of proprietary information and assignment to us of all inventions made during the course of their employment or consulting relationship. We also enter into nondisclosure agreements with our commercial counterparties and limit access to, and distribution of, our proprietary information.

We are committed to developing and protecting our intellectual property and, where appropriate, filing patent applications to protect our technology. Our issued and pending patents claims are directed at the following areas related to our technology:

- Methods to induce and enhance thermoacoustic signal generation;
- System configurations, devices and novel hardware for transmission of RF pulses into tissue and detection of acoustic signals;
- Methods for integrating our devices with existing conventional ultrasound systems; and
- Methods and algorithms for signal processing, image formation and analysis.

We currently maintain a patent portfolio consisting of two patents issued in foreign jurisdictions, eight patent applications pending in the United States and five patent applications pending in foreign jurisdictions. These patents and patent applications cover certain innovations relating to contrast-enhanced imaging as well as several aspects of fat imaging and fat quantitation in the liver and other tissues.

In addition, we have in-licensed five U.S. patents, three foreign patents, one patent application pending in the United States and two patent applications pending in foreign jurisdictions. These patents protect a number of key design attributes that are specific to our Nexus 128 product.

Each of our patents generally has a term of 20 years from its respective priority filing date. Among our issued patents, the first patents are set to expire in 2018 and the last patents expire in 2031.

Sales and Marketing

We currently market our Nexus 128 pre-clinical system through a small internal marketing team and a global network of distributors in the United Kingdom, the European Union, Australia, China and Korea. We use our corporate website, sales materials and key industry meetings to drive customer awareness, interest and trial of our products.

We currently do not have a sales and marketing team dedicated to our TAEUS clinical applications. In parallel to securing all necessary government marketing approvals, we intend to hire a small internal marketing team to engage and support channel partners and clinical customers. As we have done with our Nexus 128 system, we intend to partner with several geographically-focused independent clinical ultrasound equipment distributors to market and sell our TAEUS applications. We believe that these distributors have existing customer relationships, a strong knowledge of diagnostic imaging technology and the capabilities to support the installation, customer training and post-sale service of capital equipment and software.

We also intend to work with original equipment manufacturers, or OEMs, of ultrasound and thermal ablation equipment to sell our TAEUS applications alongside their own new systems and into their existing installed base systems. We believe that these OEMs will find our applications attractive as they will enable them to generate additional revenue from their installed systems – as they currently do with aftermarket accessory portfolios. We believe our relationship with GE Healthcare will facilitate this strategy.

Based on our design work and our understanding of the ultrasound accessory market, we intend to price our initial NAFLD TAEUS application at a price point approximating one-half of the price of a new cart-based ultrasound system, which should enable purchasers to recoup their investment in less than one year by performing a relatively small number of additional ultrasound procedures.

Some of our TAEUS offerings are expected to be implemented via a hardware platform that can run multiple individual software applications that we will offer TAEUS users for a one-time licensing fee, enabling users to perform more procedures with their existing ultrasound equipment and retaining more patients in their clinics rather than referring them out to a regional imaging medical center for a CT or MRI scan.

We also intend to license our TAEUS technology to OEMs, such as GE Healthcare, for incorporation in their new ultrasound systems.

Manufacturing

We assemble our Nexus 128 products from components provided to us by third-party component suppliers and manufacturers. While many of the components are off-the-shelf components available from multiple suppliers, our proprietary receiver array is specially manufactured to our specifications by one manufacturer. To date, we have not experienced any component shortages. We do not have any long-term supply or manufacturing agreements related to our Nexus 128 products and components are obtained on a purchase order basis when required.

We intend to contract with a medical device contract engineering firm to perform the commercial product engineering for our NAFLD TAEUS application, as well as any other application we decide to commercialize. We expect that the selected contractor will have quality systems and processes in place, commensurate with productizing devices with CE mark certification that will meet FDA requirements for approval. We believe that our contractor will have the ability to provide product design, development and documentation necessary to support a CE mark that will enable us to sell the application in the European Union as a Class IIa medical device once a final design has been developed and tested. We also expect that this contractor, with support from a medical device regulatory consulting firm, will lead the preparation of documentation for regulatory approval submission both in the European Union and in the United States. In order to foster collaboration with and supervision of our contractor, we intend to locate one or more of our employees at the medical device contract engineering firm during the TAEUS application manufacturing process. We have identified several medical device contract engineering firms that have the capability to provide these services. However, as of the date hereof, we have not entered into a contract with any of them. We expect that our contract manufacturers will either supply necessary components internally or obtain them from third-party sources. At this time, we do not know whether any components will be single sourced.

Regulatory Approval Pathway

Each of our TAEUS platform applications will require regulatory approvals before we are able to sell or license the application. Based on certain factors, such as the installed base of ultrasound systems, availability of other imaging technologies, such as CT and MRI, economic strength and applicable regulatory requirements, we intend to seek initial approval of our applications for sale in the European Union, followed by the United States and China.

The first TAEUS application we intend to commercialize is our NAFLD TAEUS application. Our initial target market for this application is the European Union. We believe that our NAFLD TAEUS application will qualify for sale in the European Union as a Class IIa medical device. As a result, we will be required to obtain a CE mark for our NAFLD TAEUS application before we can sell the application in the European Union. We have not yet initiated the process for obtaining this CE mark. The first step we plan to take in this regard is to contract with a medical device contract engineering firm to perform the commercial product engineering for our NAFLD TAEUS application, as well as any other application we decide to commercialize. We expect that the selected contractor will have quality systems and processes in place, commensurate with productizing devices with CE mark and FDA certification and approvals. We believe that our contractor will have the ability to provide product design, development and documentation necessary to support a CE mark that will enable us to sell the application in the European Union as a Class IIa medical device once a final design has been developed and tested. We also expect that this contractor, with support from a medical device regulatory consulting firm, will lead the preparation of documentation for regulatory approval submission both in the European Union and, later, in the United States. We have identified several medical device contract engineering firms that have the capability to provide these services. However, as of the date hereof, we have not entered into a contract with any of them. Existing regulations would not require us to conduct a clinical trial to obtain a CE mark for this application. Nonetheless, for commercial reasons and to support our CE mark application we plan to conduct a limited (less than 10 person) trial to demonstrate our NAFLD TAEUS application's ability to distinguish fat from lean tissue. Based on our understanding of applicable regulations and consultations with medical device regulatory consulting firms and medical device contract engineering firms, we expect that the development of our NAFLD TAEUS application, including the receipt of the necessary CE mark, will be complete approximately 12 to 15 months after the completion of this offering, and that we will use approximately $600,000 of the net proceeds from this offering on such activities. Additionally, to enhance our commercialization efforts in the European Union, following receipt of such CE mark and placement of initial systems with researchers and universities, we plan to conduct one or more clinical studies to demonstrate this product's capabilities, and that we will use approximately $250,000 of the net proceeds from this offering on such activities. However, these estimates are subject to uncertainty and there can be no assurance that these processes will not take longer or be more costly than we expect. In 2012 the European Commission proposed a new regulatory scheme that, if implemented, will impose significant additional obligations on medical device companies. Expected changes include stricter requirements for clinical evidence and pre-market assessment of safety and performance, new classifications to indicate risk levels, requirements for third party testing by government accredited groups for some types of medical devices, and tightened and streamlined quality management system assessment procedures. It is anticipated that this new regulatory scheme may be implemented prior to receipt of the CE mark for our NAFLD TAEUS application but we believe that applicable transition rules should allow us to avoid their application in that case. However, such new rules could impose additional requirements, such as a requirement to conduct clinical trials, on future CE mark applications we make.

After the process of obtaining a CE mark for our NAFLD TAEUS application is complete and if we are able to raise additional capital, we intend to prepare for submission to the U.S. Food and Drug Administration, or the FDA, an application under the Food, Drug and Cosmetic Act, or the FD&C Act, to sell our NAFLD TAEUS application in the U.S. We anticipate that the application, as well as those for our other TAEUS applications, will be submitted for approval under Section 510(k) of the FD&C Act. Based on our understanding of applicable regulations and consultations with medical device regulatory consulting firms and medical device contract engineering firms, we expect to submit this application to the FDA approximately fifteen months after the completion of this offering and for the FDA to make a final determination on our application approximately six months after that application is submitted. We expect that our initial FDA clearance will allow us to sell the NAFLD TAEUS application in the U.S. with general imaging claims. However, we will need to obtain additional FDA clearances to be able to make diagnostic claims for fatty tissue content determination. Accordingly, to support our commercialization efforts we expect that, following receipt of our initial FDA clearance, we will submit one or more additional applications to the FDA, each of which will need to include additional clinical trial data, so that following receipt of the necessary clearances we may make those diagnostic claims.

Regulation

European Union

The primary regulatory environment in Europe is the European Union, which consists of 28 member states encompassing most of the major countries in Europe. We believe that in the European Union applications incorporating our TAEUS technology will be regulated as Class IIa medical devices by the European Medicines Agency, or EMA, and the European Union Commission. As described above, we expect our applications will receive a CE mark from an appropriate Competent Authority as a result of successful review of one or more submissions prepared by our contract engineering and manufacturer(s), so that such applications can be marketed and distributed within the European Economic Area. Each of our applications will be required to be recertified each year for CE marking, which recertification may require an annual audit. The audit procedure, which will include on-site visits at our facility, and the contract manufacturer's(s') facility(ies), will require us to provide the contract manufacturer(s) with information and documentation concerning our quality management system and all applicable documents, policies, procedures, manuals, and other information.

In the European Union, the manufacturer of medical devices is subject to current Good Manufacturing Practice, or cGMP, as set forth in the relevant laws and guidelines of the European Union and its member states. Compliance with cGMP is generally assessed by a Notified Body accredited by a Competent Authority. For a Class IIa device, typically, quality system evaluation is performed by the Notified Body, which also recommends to the relevant Competent Authority for the European community whether a device will receive a CE mark. The Notified Body may conduct inspections of relevant facilities, and review manufacturing procedures, operating systems and personnel qualifications. In addition to obtaining approval for each application, 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 application.

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 applications are subject to extensive regulation by the FDA under the FD&C Act and/or the Public Health Service Act, as well as by other regulatory bodies. The 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.

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, premarket notification (510(k)), specific controls such as performance standards, patient registries and post-market surveillance and additional controls such as labeling and adherence to quality system regulations; and
- Class III: special controls and approval of a premarket approval, or PMA, application.

We expect all of our products to be classified as Class II medical devices and require FDA authorization prior to marketing by means of a 510(k) clearance.

To request marketing authorization by means of a 510(k) clearance, we must submit a premarket 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 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. The typical duration to receive a 510(k) approval is approximately nine to twelve months from the date of the initial 510(k) submission, although there is no guarantee that the timing will not be longer.

In the past, the 510(k) pathway for product marketing has required only proof of substantial equivalence in technology for a given indication with a previously cleared device. Recently, there has been a trend of the FDA requiring additional clinical work to prove efficacy in addition to technological equivalence and basic safety. Whether clinical data is provided or not, the FDA may decide to reject the substantial equivalence argument we present. If that happens, the device is automatically designated as a Class III device. The device sponsor must then fulfill more rigorous PMA requirements, or can request a risk-based classification determination for the device in accordance with the “de novo” process, which may determine that the new device is of low to moderate risk and that it can be appropriately be regulated as a Class I or II device. If a de novo request is granted, the device may be legally marketed and a new classification is established. If the device is classified as Class II, the device may serve as a predicate for future 510(k) submissions. If the device is not approved through de novo review, then it must go through the standard PMA process for Class III devices.

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, 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.

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, a 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 in which the FDA has not. The FDA must find the information to be satisfactory in order to 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 after 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. The typical duration to receive PMA approval is approximately two years from the date of submission of the initial PMA application, although there is no guarantee that the timing will not be longer.

Clinical Trials of Medical Devices

One or more clinical trials are generally 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 investigational device exemption application to the FDA prior to initiation of the clinical study. An investigational device exemption 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 investigational device exemption 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 has approved the study.

During the study, the sponsor must comply with the FDA's investigational device exemption 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. The sponsor, the FDA, or the institutional review board 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, 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; and
- the Medical Device Reporting regulation, which requires reporting to the FDA of certain adverse experiences associated with use of the product.

Good Manufacturing Practices Requirements

Manufacturers of medical devices are required to comply with the good manufacturing practices set forth in the quality system regulation promulgated under Section 520 of the FD&C Act. Current good manufacturing practices regulations require, among other things, quality control and quality assurance as well as the corresponding maintenance of records and documentation. The manufacturing facility for an approved product must be registered with the FDA and meet current good manufacturing practices requirements to the satisfaction of the FDA pursuant to a pre-PMA approval inspection before the facility can be used. Manufacturers, including third party contract manufacturers, are also subject to periodic inspections by the FDA and other authorities to assess 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.

China Regulation

China's regulatory approval framework includes nationwide approval based on a showing that the device for which approval is sought has been previously approved in the country of origin. Alternatively, we understand it is also possible to receive approval at the provincial level or to work exclusively with hospitals that do not require such nationwide or provincial approval. We intend to explore these potential paths to regulatory compliance in China.

Other Regulations

We will become 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 EMA or FDA clearance, and requirements for licensing a product in a foreign country may differ significantly from EMA and FDA requirements.

Competition

While we believe that we are the only company developing RF-based thermoacoustic ultrasound products, we will face direct and indirect competition from a number of competitors, many of whom have greater financial, sales and marketing and other resources than we do.

Manufacturers of CT and MRI systems include multi-national corporations such as Royal Philips, Siemens AG and Hitachi, Ltd., many of whom also manufacture and sell ultrasound equipment. In the NAFLD diagnosis market we will compete with makers of surgical biopsy tools, such as Cook Medical and Sterylab S.r.l. In the thermal ablation market, we will compete with manufacturers of surgical temperature probes, such as Medtronic plc and St. Jude Medical, Inc.

Research and Development

Our research and development expenses were $495,377 and $1,038,878 for the years ended December 31, 2016 and 2015, respectively.

Employees

As of December 31, 2016, we had eight employees, five of whom are employed on a full-time basis. Three full-time employees and two part-time employees were engaged in research and development activities, one full-time employee was engaged in administrative activities, one full-time employee was engaged in product assembly and one part-time employee was engaged in marketing activities. After the closing of the offering, we intend to employ certain of our part-time employees on a full-time basis. None of our employees is covered by a collective bargaining agreement, and we believe our relationship with our employees is good.

We also employ technical advisors, on an as-needed basis, to supplement existing staff. We believe that these technical advisors provide us with necessary expertise in clinical ultrasound applications, ultrasound technology, and intellectual property.

Properties

Our principal office is located at 3600 Green Court, Suite 350, Ann Arbor, Michigan 48105-1570. We currently lease approximately 3,657 square feet of office and light industrial/research space under a lease that is due to expire in 2020. The rent is approximately $6,135 per month, subject to moderate annual increases. We believe that equivalent suitable space is available at similar rents.

Legal Proceedings

We are not a party to any pending legal proceedings.

EXECUTIVE OFFICERS, DIRECTORS AND CORPORATE GOVERNANCE

The following table sets forth the names and ages of all of our executive officers and directors. Our officers are appointed by, and serve at the pleasure of, the board of directors.

Name	Age	Position
Francois Michelon	51	Chief Executive Officer and Chairman
Michael Thornton	48	Chief Technology Officer
David Wells	54	Chief Financial Officer
Anthony DiGiandomenico	50	Director
Dr. Sanjiv Sam Gambhir	54	Director
Michael Harsh	62	Director
Alexander Tokman	55	Director

Biographical information with respect to our executive officers and directors is provided below. There are no family relationships between any of our executive officers or directors.

Francois Michelon – Chief Executive Officer and Chairman

Francois Michelon joined ENDRA as Chief Executive Officer and Chairman of the Board of Directors in 2015. He has 18 years of healthcare technology experience in general management, operations, strategy and marketing across the diagnostic imaging, surgical instrument and dental sectors.

From 2012 to 2014, Mr. Michelon served as Vice President of Global Marketing for the 3i division of Biomet, Inc. (now Zimmer Biomet Holdings, Inc.), a provider of oral reconstruction technologies, where he was responsible for the upstream and downstream development of the division's global portfolio. From 2004 to 2011, Mr. Michelon served as Group Director of Global Services and Visualization for Smith & Nephew plc's Advanced Surgical Devices division, where he led P&L's in the B2B service and capital equipment sectors. From 1997 to 2004, Mr. Michelon worked at GE Healthcare in a variety of global upstream and downstream marketing roles.

Mr. Michelon received an MBA from Carnegie-Mellon University and a BA in Economics from the University of Chicago. He has also earned his Six Sigma Black Belt certification. Mr. Michelon's extensive industry and executive experience position him well to serve as our Chief Executive Officer and a member of our board of directors.

Michael Thornton – Chief Technology Officer

Prior to joining ENDRA as Chief Technology Officer in 2007, Michael Thornton was a founder and President of Enhanced Vision Systems Corp., or EVS, a developer and supplier of medical imaging equipment to the pharmaceutical, biotech, and academic sectors.

In 2002, EVS was acquired by General Electric Company and was integrated into the Functional and Molecular Imaging business unit of GE Medical Systems (now GE Healthcare, a subsidiary of General Electric Company). Following the acquisition of EVS by GE Medical Systems, Mr. Thornton held a number of positions at GE Healthcare, including Sales Manager, Global Product Manager, and Site Leader. He was a member of the leadership team that expanded the pre-clinical imaging business to include: computed tomography, optical, and positron emission tomography imaging technologies, with global market reach. He is also a founder of Volumetrics Medical Corp., a developer and manufacturer of quality assurance devices for diagnostic imaging.

Prior to founding EVS, Mr. Thornton developed medical imaging related technologies at the Robarts Research Institute (London, Ontario, Canada) for which he obtained an MSc in Electrical Engineering from the University of Western Ontario. Mr. Thornton also holds a BASc in Electrical Engineering from the University of Toronto and is a member of the American Association of Physicists in Medicine.

David Wells – Chief Financial Officer

David Wells became our Chief Financial Officer on an interim basis in 2014 and on a continuing basis in 2017. He possesses 30 years of experience in finance, operations and administrative positions. While mainly focused on technology companies, Mr. Wells has also worked in the water treatment, supply-chain management, manufacturing and professional services industries.

Mr. Wells is the founder of Wells Compliance Group, a technology-based services firm supporting the financial reporting needs of publicly traded companies and privately held firms whose investor or shareholder base requires timely GAAP-compliant financial reporting. Through StoryCorp Consulting (d/b/a/ Wells Compliance Group), Mr. Wells has consulted with several emerging growth companies since March 2013 and served as the principal financial officer of Mount Tam Biotechnologies, Inc., a biopharmaceutical company (August 2015 to April 2016), Content Checked Holdings, Inc., a technology company (April 2015 to November 2016), and Loton, Corp., a media company (February 2016 to present). From 2009 to 2013, he was the President, CFO and a Director of Sionix Corporation, a publicly traded water treatment company.

Mr. Wells holds an MBA from Pepperdine University and a BS in Finance and Entrepreneurship from Seattle Pacific University.

Anthony DiGiandomenico – Director

Anthony DiGiandomenico joined ENDRA's board of directors in 2013. A co-founder of MDB Capital Group LLC, Mr. DiGiandomenico focuses on corporate finance and capital formation for growth-oriented companies. He has participated in all areas of corporate finance including private capital, public offerings, PIPEs, business consulting and strategic planning, and mergers and acquisitions.

Mr. DiGiandomenico has also worked on a wide range of transactions for growth-oriented companies in biotechnology, nutritional supplements, manufacturing and entertainment industries. Prior to forming MDB Capital Group LLC in 1997, Mr. DiGiandomenico served as President and CEO of the Digian Company, a real estate development company.

Mr. DiGiandomenico holds an MBA from the Haas School of Business at the University of California, Berkeley and a BS in Finance from the University of Colorado. Mr. DiGiandomenico's financial expertise, general business acumen and significant executive leadership experience position him well to make valuable contributions to our board of directors.

Dr. Sanjiv Sam Gambhir – Director

Dr. Sanjiv Sam Gambhir joined our board of directors in 2008. He is the Virginia & D.K. Ludwig Professor of Cancer Research and the Chair of Radiology at Stanford University School of Medicine. He also heads the Canary Center at Stanford for Cancer Early Detection and directs the Molecular Imaging Program at Stanford (MIPS).

He received an MD/PhD from the UCLA Medical Scientist Training Program. He has many publications in the field and numerous patents pending or granted. He has developed and clinically translated several multimodality molecular imaging strategies including imaging of gene and cell therapies. He has also pioneered imaging areas such as Bioluminescence Resonance Energy Transfer (BRET), split-reporter technology, Raman imaging in vivo, Molecular Photoacoustic imaging, PET reporter genes, and novel in vitro and in vivo strategies for the early detection of cancer.

Dr. Gambhir serves on numerous academic advisory boards for universities around the world and also served as a member of the Board of Scientific Advisors of the National Cancer Institute from 2004 to 2012. He has also founded or co-founded several startups in the diagnostics space. Among his many awards are the George Von Hevesy Prize and the Paul C. Aebersold Award for outstanding achievement in basic nuclear medicine science from the Society of Nuclear Medicine, Outstanding Researcher Award from the Radiological Society of Northern America, the Distinguished Clinical Scientist Award from the Doris Duke Charitable Foundation, the Holst Medal, the Tesla Medal, and the Hounsfield Medal from Imperial College, London. He was elected to the Institute of Medicine of the U.S. National Academies in 2008. Dr. Gambhir's unique and extensive scientific and technical expertise positions him well to serve on our board of directors.

Michael Harsh – Director

Michael Harsh joined ENDRA's board of directors in 2015. He has 36 years' experience in healthcare technology, focused on diagnostic imaging. Mr. Harsh was most recently GE Healthcare's Vice President and Chief Technology Officer, leading its global science and technology organization and research and development teams in diagnostics, healthcare IT and life sciences.

In 2004, Mr. Harsh was named Global Technology Leader – Imaging Technologies Lab at the GE Global Research Center, where he led the research for imaging technologies across the company as well as the research associated with computer visualization/image analysis and superconducting systems. He led the Engineering division for GE Industrial and Enterprise Solutions from 2006 to 2009. Mr. Harsh was named an officer of General Electric Company in November 2006. Mr. Harsh is a co-founder and current Chief Product Officer of Terapede Systems Inc., a digital x-ray detector startup, a member of the board of directors of FloDesign Sonics, Inc., a member of the Scientific Advisory Board of Phoenix Nuclear Labs, LLC and a consultant to start-ups in the medical device industry.

Mr. Harsh is a graduate of Marquette University, where he earned a bachelor's degree in Electrical Engineering. He holds numerous U.S. patents in the field of medical imaging and instrumentation. In 2008, Mr. Harsh was elected to the American Institute for Medical and Biological Engineering College of Fellows for his significant contributions to the medical and biological engineering field. Mr. Harsh's extensive industry, executive and board experience position him well to serve on our board of directors.

Alexander Tokman – Director

Alexander Tokman joined ENDRA's board of directors in 2008. He has served as President, Chief Executive Officer, and a director of Microvision, Inc., a publicly traded laser beam scanning projection and imaging company, since January 2006.

Previously, Mr. Tokman completed a 10+ year tenure as an executive with GE Healthcare, where he led several global businesses, most recently as a General Manager of its Global Molecular Imaging and Radiopharmacy multi-technology business unit from 2003 to 2005.

Between 1995 and 2003, Mr. Tokman served in various leadership roles at GE Healthcare, where he led the definition and successful commercialization of several product segments, including PET/CT, which generated over $500 million of revenue within the first three years of its launch.

Mr. Tokman is a certified Six Sigma and Design for Six Sigma (DFSS) Black Belt and Master Black Belt and as one of General Electric Company's Six Sigma pioneers, he drove the quality culture change across GE Healthcare in the late 1990s. From 1989 to 1995, Mr. Tokman served as development programs lead and a head of Industry and Regional Development at Tracor Applied Sciences. Mr. Tokman has both an MS and BS in Electrical Engineering from the University of Massachusetts, Dartmouth. Mr. Tokman's industry expertise and significant executive leadership and director experience position him well to make valuable contributions to our board of directors.

Director Independence

Our board of directors has determined that Anthony DiGiandomenico, Dr. Sanjiv Sam Gambhir, Michael Harsh and Alexander Tokman are "independent directors" as such term is defined by Nasdaq Marketplace Rule 5605(a)(2). We have established an Audit Committee, a Compensation Committee and a Nominating and Corporate Governance Committee. Each of Mr. DiGiandomenico, Mr. Harsh and Mr. Tokman serve as members of the Audit Committee and Compensation Committee. Mr. Gambhir, Mr. Harsh and Mr. Tokman serve as members of the Nominating and Corporate Governance Committee. Our board of directors has determined that Mr. DiGiandomenico is an audit committee financial expert, as defined under the applicable rules of the SEC, and that all members of the Audit Committee are "independent" within the meaning of the applicable Nasdaq listing standards and the independence standards of Rule 10A-3 of the Exchange Act. Each of the members of the Audit Committee meets the requirements for financial literacy under the applicable rules and regulations of the SEC and The Nasdaq Stock Market.

Scientific Advisory Board

Our Scientific Advisory Board members work with our management team in the planning, development and execution of scientific and business strategies. It reviews, and advises management on our progress in research and clinical development as well as new scientific perspectives.

Jonathan Rubin, MD, PhD – Scientific Advisor

Dr. Jonathan Rubin is the Martel Collegiate Professor of Radiology and Section Head for Ultrasound and Abdominal Interventional Radiology at the University of Michigan Medical School.

Dr. Rubin has over 200 peer-reviewed publications, over 125 invited presentations, and 10 patents. In 2005 he was awarded the University of Michigan Medical School Innovation Award. In 2007 he won the American Institute of Ultrasound in Medicine Joseph H. Holmes Clinical Pioneer Award. In 2011 he received the Society of Radiologists in Ultrasound Lawrence Mack Lifetime Achievement Award.

Dr. Rubin received a BA in Chemistry from the University of Utah. He received an MD from the University of Chicago Pritzker School of Medicine and a PhD in Biophysics and Theoretical Biology from the University of Chicago. From 1979 to 1984, Dr. Rubin was the director of the Section of Body Computed Tomography and Ultrasound Imaging in the Department of Radiology at the University of Chicago.

Dr. Jing Gao, MD – Scientific Advisor

Dr. Jing Gao is currently Research Assistant Professor of Radiology at Weill Cornell Medicine in New York, NY. Dr. Gao brings over 30 years of clinical and research experience in abdominal ultrasound, in both the United States and China.

Dr. Gao completed her medical education at Changchun and Dalian Medical Colleges in China. Besides her post at Cornell, Dr. Gao is also Deputy President and guest professor at the Dalian University International Institute of Medical Imaging in China.

Her numerous honors and professional affiliations include being named one of China's Top 100 Ultrasound Physicians by the Chinese Association of Medical Imaging Technology. She is a Fellow of the Chinese Association of Ultrasound in Medicine and Biology, a Fellow of the American Institute of Ultrasound in Medicine and an Editorial Board Member of Clinical Imaging (Elsevier).

Dr. Gao has numerous peer reviewed publications in the areas of liver, spleen and kidney diseases and quantitative ultrasound imaging.

EXECUTIVE COMPENSATION

Our compensation philosophy is to offer our executive officers compensation and benefits that are competitive and meet our goals of attracting, retaining and motivating highly skilled management, which is necessary to achieve our financial and strategic objectives and create long-term value for our stockholders. We believe the levels of compensation we provide should be competitive, reasonable and appropriate for our business needs and circumstances and our board of directors uses benchmark compensation studies in determining compensation elements and levels. The principal elements of our executive compensation program have to date included base salary, annual bonus opportunity and long-term equity compensation in the form of stock options. We believe successful long-term Company performance is more critical to enhancing stockholder value than short-term results. For this reason and to conserve cash and better align the interests of management and our stockholders, we emphasize long-term performance-based equity compensation over base annual salaries.

The following table sets forth information concerning the compensation earned by the individual that served as our Principal Executive Officer during 2016 and our two most highly compensated executive officers other than the individual who served as our Principal Executive Officer during 2016 (collectively, the "named executive officers"):

2016 Summary Compensation Table

Name & Position	Fiscal Year	Salary ($)	Bonus ($)	Option Awards($)(1)	All Other Compensation ($)	Total ($)
Francois Michelon	2016	262,152	-	-	-	**262,152**
Chief Executive Officer	2015(2)	177,083	-	248,359	-	**425,442**
Michael Thornton	2016	218,056	-	-	-	**218,056**
Chief Technology Officer	2015	200,000(3)	-	-	-	**200,000**
David R. Wells	2016	96,000(4)	-	-	-	**96,000**
Chief Financial Officer	2015	96,000(5)	-	-	-	**96,000**

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(1) The amounts shown in this column indicate the grant date fair value of option awards granted in the subject year computed in accordance with FASB ASC Topic 718. For additional information regarding the assumptions made in calculating these amounts, see notes 2 and 8 to our audited financial statements included herein.

(2) Represents a partial year of employment. Mr. Michelon joined us on April 16, 2015.

(3) Includes $33,403 of accrued compensation settled for 3 ,969 shares of common stock.

(4) Represents fees earned by StoryCorp Consulting (d/b/a Wells Compliance Group) pursuant to the consulting agreement described below. $60,000 of this was paid in cash and the balance will be paid in shares of restricted stock upon the completion of this offering.

(5) Represents fees earned by StoryCorp Consulting (d/b/a Wells Compliance Group) pursuant to the consulting agreement described below. $60,000 of this was paid in cash and the balance will be paid in shares of restricted stock upon the completion of this offering.

Outstanding Equity Awards at 2016 Fiscal Year-End

The following table provides information regarding equity awards held by the named executive officers as of December 31, 2016.

Name and Principal Position	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Option Exercise Price ($)	Option Expiration Date
Francois Michelon	11,833	23,666(1)	$ 10.01	July 1, 2020
Chief Executive Officer				
Michael Thornton	29,471	-	$ 10.01	November 1, 2018
Chief Technology Officer				
David R. Wells	-	-	-	-
Chief Financial Officer				

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(1) These options vest in two equal annual installments on July 1 of 2017 and 2018.

Employment Agreements and Change of Control Arrangements

Employment Agreements

The following is a summary of the employment arrangements with our executive officers as currently in effect.

Francois Michelon. On July 21, 2016, our board of directors approved an amended and restated employment agreement with Francois Michelon, our Chief Executive Officer and Chairman of our board of directors, which shall become effective upon the closing of this offering. The term of the employment agreement runs through December 31, 2019. The employment agreement provides for an annual base salary of $325,000. Under the employment agreement, Mr. Michelon is eligible for an annual cash bonus (in 2016, up to 35% of his base salary then in effect) based upon achievement of performance-based objectives established by our board of directors. Pursuant to Mr. Michelon's employment agreement, upon the closing of this offering he is entitled to be granted options to purchase a number of shares of common stock that, taken together with the option to purchase 35,499 shares of common stock he already holds, equals 5.0% of the Company's total issued and outstanding shares of common stock on the date of grant on a fully diluted basis. The options will have an exercise price equal to the price at which our common stock is offered to investors in this offering and will vest in three equal annual installments beginning on the first anniversary of its grant date. Upon termination without cause, any portion of Mr. Michelon's options scheduled to vest within 12 months will automatically vest, and upon termination without cause within 12 months following a change of control, the entire unvested portion of the option will automatically vest. Upon termination for any other reason, the entire unvested portion of the option will terminate.

If Mr. Michelon's employment is terminated by the Company without cause, Mr. Michelon will be entitled to receive 12 months' continuation of his current base salary and a lump sum payment equal to 12 months of continued healthcare coverage (or 24 months' continuation of his current base salary and a lump sum payment equal to 24 months of continued healthcare coverage if such termination occurs within one year following a change in control).

Under his employment agreement, Mr. Michelon is eligible to receive benefits that are substantially similar to those of the Company's other senior executive officers.

Michael Thornton. On July 21, 2016, our board of directors approved an amended and restated employment agreement with Michael Thornton, our Chief Technology Officer, which shall become effective upon the closing of this offering. Under the employment agreement, Mr. Thornton's title will be Chief Technology Officer. The term of the employment agreement runs through December 31, 2019. The employment agreement provides for an annual base salary of $245,000. Under the employment agreement, Mr. Thornton is eligible for an annual cash bonus (in 2016, up to 22% of his base salary then in effect) based upon achievement of performance-based objectives established by our board of directors. Pursuant to Mr. Thornton's employment agreement, upon the closing of this offering he is entitled to be granted options to purchase a number of shares of common stock that, taken together with the option to purchase 29,471 shares of common stock he already holds, equals 5.0% of the Company's total issued and outstanding shares of common stock on the date of grant on a fully diluted basis. The options will have an exercise price equal to the price at which our common stock is offered to investors in this offering and will vest in three equal annual installments beginning on the first anniversary of its grant date. Upon termination without cause, any portion of Mr. Thornton's option scheduled to vest within 12 months will automatically vest, and upon termination without cause within 12 months following a change of control, the entire unvested portion of the option will automatically vest. Upon termination for any other reason, the entire unvested portion of the option will terminate

If Mr. Thornton's employment is terminated by the Company without cause, Mr. Thornton will be entitled to receive 12 months' continuation of his current base salary and a lump sum payment equal to 12 months of continued healthcare coverage (or 24 months' continuation of his current base salary and a lump sum payment equal to 24 months of continued healthcare coverage if such termination occurs within one year following a change in control).

Under his employment agreement, Mr. Thornton is eligible to receive benefits that are substantially similar to those of the Company's other senior executive officers.

David R. Wells. We entered into a consulting agreement with StoryCorp Consulting (d/b/a Wells Compliance Group),or StoryCorp, in July 2014 for services provided to the Company by David R. Wells, our Chief Financial Officer. Under this consulting agreement, the Company pays to StoryCorp a monthly fee of $8,000, of which $5,000 is payable in cash and $3,000 is payable in shares of restricted stock of the Company at the closing of this offering in an amount based on the per share price of our common stock sold in this offering. Additionally, StoryCorp may issue invoices to the Company for services provided outside of those described in the consulting agreement at a rate of $250 per hour, payable in cash, and the Company will reimburse StoryCorp for reasonable and necessary expenses incurred in connection with the performance of its services under the consulting agreement. The consulting agreement's term renews monthly and the agreement may be terminated by the Company with or without cause immediately and without prior notice to StoryCorp. On July 21, 2016, our board of directors approved a one-time grant to Mr. Wells effective upon the closing of this offering of options to purchase $35,000 worth of shares of our common stock with an exercise price equal to the price at which our common stock is offered to investors in this offering.

Director Compensation

Members of our board of directors received a one-time grant of fully vested stock options in January 2016 for their service as directors for the year ended December 31, 2015. On July 21, 2016, we adopted a non-employee director compensation policy that will become effective upon the closing of this offering pursuant to which our non-employee directors will receive on an annual basis a $36,000 retainer paid in cash and an annual equity award with a value of $30,000. The equity award will consist of a stock option grant made on the first trading day following December 31 of each year covering a number of shares of common stock equal to $30,000 divided by the closing price of our common stock on such date and that vests in full on the one year anniversary of grant; provided, the grant for 2017 will be made upon the closing of this offering and the number of shares covered will be equal to $30,000 divided by the price at which our securities are offered to investors in this offering. Because our non-employee directors did not receive any compensation for their service during 2016, the non-employee director policy provides that, in addition, upon the closing of this offering each non-employee director is entitled to a stock option award covering a number of shares of securities equal to $30,000 divided by the price at which our securities are offered to investors in this offering and that will be immediately exercisable.

The following table sets forth information with respect to compensation earned by or awarded to each of our non-employee directors who served on our board of directors during the fiscal year ended December 31, 2016:

Name	Fees Earned or Paid in Cash ($)	Option Awards ($)(1)	All Other Compensation ($)	Total ($)
Anthony DiGiandomenico	-	12,589	-	12,589
Dr. Sanjiv Sam Gambhir	-	12,589	-	12,589
Michael Harsh	-	12,589	-	12,589
Alexander Tokman	-	12,589	-	12,589

(1) The amounts shown in this column indicate the grant date fair value of option awards granted in the subject year computed in accordance with FASB ASC Topic 718. For additional information regarding the assumptions made in calculating these amounts, see notes 2 and 8 to our audited financial statements included herein. The following table shows the number of shares subject to outstanding option awards held by each non-employee director as of December 31, 2016:

Name	Shares subject to Outstanding Stock Option Awards (#)
Anthony DiGiandomenico	8,092
Dr. Sanjiv Sam Gambhir	19,828
Michael Harsh	5,370
Alexander Tokman	12,165

2016 Omnibus Incentive Plan

In September 2016, our board of directors and stockholders approved the 2016 Omnibus Incentive Plan, or the Incentive Plan, pursuant to which, effective following completion of the offering, the total number shares available for issuance under such plan shall equal 18% of the total number of shares of common stock outstanding immediately following the completion of the offering (assuming for this purpose the issuance of all shares issuable under the Company's equity plan, the conversion into common stock of all outstanding securities that are convertible by their terms into common stock and the exercise of all options and warrants exercisable for shares of common stock and including shares and warrants included in the units issued to the underwriters pursuant to the offering upon exercise of its over-allotment option, if any) (i.e. on a "fully diluted basis"). Concurrently with the closing of the offering and as described above, we expect to grant stock options to our executive officers and directors covering a significant number of shares. Following such grants we estimate that the shares remaining available for grant under the Incentive Plan will be approximately 6.4% of the total number of shares of common stock outstanding on a fully diluted basis following completion of the offering.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

We have set forth in the following table certain information regarding our common stock beneficially owned by (i) each stockholder we know to be the beneficial owner of 5% or more of our outstanding common stock, (ii) each of our directors and named executive officers, and (iii) all executive officers and directors as a group. Generally, a person is deemed to be a "beneficial owner" of a security if that person has or shares the power to dispose or to direct the disposition of such security. A person is also deemed to be a beneficial owner of any securities of which the person has the right to acquire beneficial ownership within 60 days pursuant to options, warrants, conversion privileges or similar rights. Unless otherwise indicated, ownership information is as of March 17, 2017, and is based on 723,374 shares of common stock outstanding on that date (adjusted for the reverse stock split). The percentage ownership after the offering is based on shares of common stock outstanding, including shares of common stock issuable upon the conversion of our promissory notes and the issuance of the common stock included in the units being sold in this offering.

Name of Beneficial Owner (1)	Number of Shares Beneficially Owned (2)	Percentage Owned Prior to the Offering	Percentage Owned After the Offering
Francois Michelon	38,077(3)(4)	5.0%	1.0%
Michael Thornton	89,840(4)(5)	11.1%	2.4%
David R. Wells	-(6)	*	*
Dr. Sanjiv Sam Gambhir	21,626(7)	2.9%	*
Michael Harsh	7,168(8)	*	*
Alexander Tokman	13,964(9)	1.9%	*
Anthony DiGiandomenico	69,300(4)(10)	9.2%	1.9%
All directors and named executive officers as a group (7 individuals)	239,975	26.1%	6.3%
5% or More Shareholders			
Blue Earth Fund, LP (11)	207,979(4)(12)	23.4%	5.5%
Jeffrey S. Padnos and Margaret M. Padnos (13)	137,146(4)(14)	16.8%	3.7%
Benjamin L. Padnos (15)	137,301(4)(16)	16.3%	3.7%
Erick Richardson (17)	101,268(4)(18)	13.0%	3.8%
Robert C. Clifford (19)	75,423(4)(20)	10.1%	2.1%
Peter Appel (21)	70,141(4)(22)	9.1%	1.9%
Daniel Landry (23)	66,114(24)	8.8%	1.8%
Don Miloni (25)	63,281(4)(26)	8.2%	1.7%
ENDRA Holdings LLC (27)	58,813	8.1%	1.6%
Andreas Typaldos (28)	62,250(4)(29)	8.1%	1.7%
Mark L. Baum (30)	53,061(31)	7.3%	1.5%

* Less than one percent.

(1) The address of each officer and director is 3600 Green Court, Suite 350, Ann Arbor, MI 48105-1570.

(2) Beneficial ownership is determined in accordance with Rule 13d-3 under the Exchange Act and is generally determined by voting powers and/or investment powers with respect to securities. Unless otherwise noted, the shares of common stock listed above are owned as of March 17, 2017, and are owned of record by each individual named as beneficial owner and such individual has sole voting and dispositive power with respect to the shares of common stock owned by each of them.

(3) Consists of 11,833 shares of common stock issuable upon the exercise of options held directly that are presently exercisable and 26,243 shares of common stock issuable upon the conversion of a convertible promissory note.

(4) Amounts of shares of common stock issuable upon the conversion of outstanding convertible promissory notes assume that such notes are converted immediately prior to the offering at a conversion price of $1.40 per share pursuant to the terms thereof, as elected by the holders of a majority of the outstanding principal amount of such convertible promissory notes. These amounts exclude shares to be issued with respect to interest accrued on such convertible promissory notes after March 17, 2017. See "Description of Our Capital Stock Convertible Promissory Notes" for a description of the terms of our convertible promissory notes.

(5) Consists of (a) 4,967 shares of common stock held directly; (b) 29,471 shares of common stock issuable upon the exercise of options held directly that are presently exercisable; (c) 999 shares of common stock issuable upon the exercise of warrants held directly that are presently exercisable; and (d) 54,402 shares of common stock issuable upon the conversion of convertible promissory notes.

(6) Does not include shares issuable upon the exercise of options awarded upon the closing of this offering pursuant to our consulting agreement with StoryCorp. See “Executive Compensation Employment Agreements and Change of Control Arrangements.”

(7) Consists of 21,626 shares of common stock issuable upon the exercise of options held directly that are presently exercisable.

(8) Consists of 7,168 shares of common stock issuable upon the exercise of options held directly that are presently exercisable.

(9) Consists of 13,964 shares of common stock issuable upon the exercise of options held directly that are presently exercisable.

(10) Consists of (a) 39,199 shares of common stock held directly; (b) 9,890 shares of common stock issuable upon the exercise of options held directly that are presently exercisable; (c) 999 shares of common stock issuable upon the exercise of warrants held directly that are presently exercisable; and (d) 19,211 shares of common stock issuable upon the conversion of a convertible promissory note held directly.

(11) The address of Blue Earth Fund, LP is 1312 Cedar Street, Santa Monica, CA 90405. Sole voting and dispositive power with respect to all of Blue Earth Fund, LP's 207,917 shares of common stock is held by Brett Conrad, the manager of Blue Earth Fund, LP, whose address is also 1312 Cedar Street, Santa Monica, CA 90405.

(12) Consists of (a) 42,458 shares of common stock held directly; (b) 12,488 shares of common stock issuable upon the exercise of warrants held directly that are presently exercisable; and (c) 153,033 shares of common stock issuable upon the conversion of a convertible promissory note.

(13) The address of Jeffrey S. Padnos and Margaret M. Padnos is 1088 West 27th Street, Holland, MI 49423.

(14) Consists of (a) 18,007 shares of common stock held jointly by Mr. and Mrs. Padnos; (b) 7,717 shares of common stock issuable upon the exercise of warrants held jointly by Mr. and Mrs. Padnos that are presently exercisable; (c) 44,667 shares of common stock issuable upon the conversion of a convertible promissory note held jointly by Mr. and Mrs. Padnos; (d) 9,091 shares of common stock held by Jeffrey & Margaret Padnos 2010 Generation Trust fbo Benjamin Padnos (as to which Mr. and Mrs. Padnos have shared voting and investment power); (e) 3,896 shares of common stock issuable upon the exercise of warrants held by Jeffrey & Margaret Padnos 2010 Generation Trust fbo Benjamin Padnos (as to which Mr. and Mrs. Padnos have shared voting and investment power) that are presently exercisable; (f) 10,332 shares of common stock issuable upon the conversion of a convertible promissory note held by Jeffrey & Margaret Padnos 2010 Generation Trust fbo Benjamin Padnos (as to which Mr. and Mrs. Padnos have shared voting and investment power); (g) 5,682 shares of common stock held by Jeffrey & Margaret Padnos 2010 Generation Trust fbo Rebecca Padnos (as to which Mr. and Mrs. Padnos have shared voting and investment power); (h) 2,435 shares of common stock issuable upon the exercise of warrants held by Jeffrey & Margaret Padnos 2010 Generation Trust fbo Rebecca Padnos (as to which Mr. and Mrs. Padnos have shared voting and investment power) that are presently exercisable; (i) 6,361 shares of common stock issuable upon the conversion of a convertible promissory note held by Jeffrey & Margaret Padnos 2010 Generation Trust fbo Rebecca Padnos (as to which Mr. and Mrs. Padnos have shared voting and investment power); (j) 5,682 shares of common stock held by Jeffrey & Margaret Padnos 2010 Generation Trust fbo Joshua Padnos (as to which Mr. and Mrs. Padnos have shared voting and investment power); (k) 2,435 shares of common stock issuable upon the exercise of warrants held by Jeffrey & Margaret Padnos 2010 Generation Trust fbo Joshua Padnos (as to which Mr. and Mrs. Padnos have shared voting and investment power) that are presently exercisable; (l) 6,361 shares of common stock issuable upon the conversion of a convertible promissory note held by Jeffrey & Margaret Padnos 2010 Generation Trust fbo Joshua Padnos (as to which Mr. and Mrs. Padnos have shared voting and investment power); (m) 5,682 shares of common stock held by Jeffrey & Margaret Padnos 2010 Generation Trust fbo Samuel Padnos (as to which Mr. and Mrs. Padnos have shared voting and investment power); (n) 2,435 shares of common stock issuable upon the exercise of warrants held by Jeffrey & Margaret Padnos 2010 Generation Trust fbo Samuel Padnos (as to which Mr. and Mrs. Padnos have shared voting and investment power) that are presently exercisable; and (o) 6,361 shares of common stock issuable upon the conversion of a convertible promissory note held by Jeffrey & Margaret Padnos 2010 Generation Trust fbo Samuel Padnos (as to which Mr. and Mrs. Padnos have shared voting and investment power).

(15) The address of Benjamin L. Padnos is 221 34th Street, Manhattan Beach, CA 90266.

(16) Consists of (a) 20,610 shares of common stock held directly; and (b) 116,691 shares of common stock issuable upon the conversion of a convertible promissory note.

(17) The address of Erick Richardson is 11290 Chalon Road, Los Angeles, CA 90049.

(18) Consists of (a) 36,049 shares of common stock held directly; (b) 11,239 shares of common stock held jointly by Erick and Molly Richardson; (c) 8,117 shares of common stock issuable upon the exercise of warrants held jointly by Mr. and Mrs. Richardson; and (d) 45,863 shares issuable upon the conversion of a promissory note held directly.

(19) The address of Robert C. Clifford is 1057 Corsica Drive, Pacific Palisades, CA 90272.

(20) Consists of (a) 37,201 shares of common stock held by 1999 Clifford Family Trust, dated 12/22/1999 (as to which Mr. Clifford has shared voting and investment power); (b) 14,081 shares of common stock held by The Kingdom Trust Company Custodian fbo Robert C. Clifford (as to which Mr. Clifford has voting and investment power); (c) 9,246 shares of common stock issuable upon the exercise of warrants held by The Kingdom Trust Company Custodian fbo Robert C. Clifford (as to which Mr. Clifford has voting and investment power); and (d) 14,895 shares of common stock issuable upon the conversion of a convertible promissory note held by The Kingdom Trust Company Custodian fbo Robert C. Clifford (as to which Mr. Clifford has voting and investment power).

(21) The address of Peter Appel is 77 Oregon Road, Bedford Corners, NY 10549.

(22) Consists of (a) 24,975 shares of common stock held by Lone Wolf Holdings, LLC (as to which Mr. Appel has voting and investment power); (b) 18,731 shares of common stock issuable upon the exercise of warrants held by Lone Wolf Holdings, LLC (as to which Mr. Appel has voting and investment power); and (c) 26,434 shares of common stock issuable upon the conversion of a promissory note held by Lone Wolf Holdings, LLC (as to which Mr. Appel has voting and investment power).

(23) The address of Daniel Landry is 216 Avenue B, Redondo Beach, CA 90277.

(24) Consists of (a) 39,200 shares of common stock held directly; (b) 6,294 shares of common stock issuable upon the exercise of options held directly that are presently exercisable; (c) 1,499 shares of common stock issuable upon the exercise of warrants held directly that are presently exercisable; and (d) 19,121 shares of common stock issuable upon the conversion of a convertible promissory note held by The Kingdom Trust Company Custodian fbo Daniel Landry (as to which Mr. Landry has voting and investment power).

(25) The address of Don Miloni is 1425 E. Greenwood Lane, Greenwood Village, CO 80121.

(26) Consists of (a) 17,483 shares of common stock held by RCHER Financial LLC (as to which Mr. Miloni has voting and investment power); (b) 7,493 shares of common stock issuable upon the exercise of warrants held by RCHER Financial LLC (as to which Mr. Miloni has voting and investment power); and (c) 38,305 shares of common stock issuable upon the conversion of a convertible promissory note held directly.

(27) The address of ENDRA Holdings LLC is 500 Boylston Street, Suite 1600, Boston, MA 02116. The manager of ENDRA Holdings LLC is Enlight Biosciences LLC, which also has an address of 500 Boylston Street, Suite 1600, Boston MA 02116. Daphne Zohar, chief executive officer of Enlight Biosciences LLC, has sole voting and dispositive power with respect to all of Endra Holdings LLC's 58,813 shares of common stock.

(28) The address of Andreas Typaldos is 666 Greenwich Street, Suite 734, New York, NY 10014.

(29) Consists of (a) 19,980 shares of common stock held by Andreas Typaldos LTD Partnership (as to which Mr. Typaldos has voting and investment power); and (b) 42,269 shares of common stock issuable upon the conversion of a convertible promissory note held by Andreas Typaldos LTD Partnership (as to which Mr. Typaldos has voting and investment power).

(30) The address of Mark L. Baum is 1127 Cuchara Drive, Del Mar, CA 92014.

(31) Consists of (a) 46,767 shares of common stock held by Mark Baum Trust dated May 17, 2011 (as to which Mr. Baum has voting and investment power); and (b) 6,294 shares of common stock issuable upon the exercise of options held by Mr. Baum that are presently exercisable.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

We have been authorized to list our units, common stock and warrants on the Nasdaq Capital Market, therefore, our determination of the independence of directors is made using the definition of "independent" contained in the listing standards of the Nasdaq Stock Market. On the basis of information solicited from each director, the board has determined that each of Anthony DiGiandomenico, Dr. Sanjiv Sam Gambhir, Michael Harsh and Alexander Tokman has no material relationship with the Company and is independent within the meaning of such rules.

SEC regulations define the related person transactions that require disclosure to include any transaction, arrangement or relationship in which the amount involved exceeds the lesser of $120,000 or one percent of the average of the Company's total assets at year end for the last two completed fiscal years in which we were or are to be a participant and in which a related person had or will have a direct or indirect material interest. A related person is: (i) an executive officer, director or director nominee of the Company, (ii) a beneficial owner of more than 5% of our common stock, (iii) an immediate family member of an executive officer, director or director nominee or beneficial owner of more than 5% of our common stock, or (iv) any entity that is owned or controlled by any of the foregoing persons or in which any of the foregoing persons has a substantial ownership interest or control.

For the period from January 1, 2014 through the date of this prospectus (the "Reporting Period"), described below are certain transactions or series of transactions between us and certain related persons.

In May 2014, Mr. Tokman, Dr. Gambhir and Mr. DiGiandomenico received stock options as compensation for their service on the Company's board of directors. Mr. Tokman, Dr. Gambhir and Mr. DiGiandomenico each received options exercisable for 2,997 shares of the Company's common stock at an exercise price of $10.01 that expire in May 2017. Mr. Tokman also received options exercisable for 3,571 shares of the Company's common stock at an exercise price of $10.01 that expire in May 2019 in satisfaction of an outstanding obligation of the Company to Mr. Tokman.

On August 28, 2014, the Company entered into a services agreement with StoryCorp Consulting (dba Wells Compliance Group) for financial reporting and compliance services. David R. Wells is the owner of this firm and is the Company's Chief Financial Officer. The services agreement calls for payments of $5,000, and accrues an additional $3,000 per month in fees to be paid by common stock at the time of a public offering. The accrued balance due under the cash portion as of December 31, 2016 and December 31, 2015 was $2,195 and $7,500, respectively, and the accrued balance due under the stock portion was $81,000 and $45,000, respectively. The Company can cancel the contract at any time without notice.

In September 2014, the Company issued to Mr. DiGiandomenico 13,589 shares of its common stock in exchange for the cancellation of a warrant and of outstanding principal and accrued interest on a promissory note held by Mr. DiGiandomenico.

In July 2015, Mr. Thornton received 3,968 shares of the Company's common stock for accrued salary of approximately $33,000.

On November 31, 2015, Kevin Cotter, an ENDRA common stockholder, transferred to Mr. Thornton warrants to purchase 999 shares of the Company's common stock at an exercise price of $5.01. On January 19, 2016, Mr. Thornton exercised these warrants, and received an additional 999 warrants at an exercise price of $20.02 as a part of the warrant exchange program.

On January 28, 2016, we issued convertible promissory notes to Sanjiv Gambhir (the "Gambhir Note"), Michael Harsh (the "Harsh Note") and Alexander Tokman (the "Tokman Note"), each a member of our board of directors. The Gambhir Note and the Tokman Note are each in the principal sum of $20,000 and the Harsh Note is in the principal sum of $10,000. None of the notes accrue interest and all three are payable upon the earlier of (1) completion by the Company of an equity financing of $4.0 million or more and (2) the one-year anniversary of the issuance date.

From April 2016 through March 2017, we issued convertible promissory notes to the following related persons: (i) Francois Michelon, our Chief Executive Officer, in the principal sum of $35,000, (ii) Michael Thornton, our Chief Technology Officer, in the principal sum of $52,000, (iii) Anthony DiGiandomenico, a director of the Company, in the principal sum of $25,000, (iv) a trust beneficially owned by Robert C. Clifford, a beneficial owner of more than 5% of our common stock, in the principal sum of $19,474, (v) a trust beneficially owned by Daniel Landry, a beneficial owner of more than 5% of our common stock, in the principal sum of $25,000, (vi) Benjamin L. Padnos, a beneficial owner of more than 5% of our common stock, in the principal sums of $35,000, $54,500 and$100,000, (vii) Cynthia Padnos, an immediate family member of a beneficial owner of more than 5% of our common stock, in the principal sum of $12,096, (viii) Daniel Padnos, an immediate family member of a beneficial owner of more than 5% of our common stock, in the principal sums of $7,258 and $25,000, (ix) Jeffrey S. Padnos and Margaret M. Padnos (including trusts which they beneficially own), joint beneficial owners of more than 5% of our common stock, in the principal sums of $25,000 and $96,811, (x) Jonathan Padnos, an immediate family member of a beneficial owner of more than 5% of our common stock, in the principal sums of $17,258 and $25,000, (xi) Sivan Padnos Caspi, an immediate family member of a beneficial owner of more than 5% of our common stock, in the principal sum of $7,258, (xii) Michael Thornton, our Chief Technology Officer, in the principal sum of $20,000, and (xiii) Conal Thornton, the father of Michael Thornton, our Chief Technology Officer, in the principal sum of $20,000. These convertible promissory notes mature on May 12, 2017, accrue interest at the rate of 8% per annum, are payable at maturity and are secured by all assets of the Company, now owned or hereafter acquired. Upon the election of noteholders holding a majority of the outstanding principal amount of the convertible promissory notes, all outstanding convertible promissory notes are convertible into shares of the Company's common stock, in each case at a conversion price of $1.40 per share. Pursuant to such terms, the noteholders have elected to convert all of the outstanding principal and accrued interest on the convertible promissory notes into shares of common stock of the Company immediately prior to the completion of the offering.

DESCRIPTION OF THE SECURITIES WE ARE OFFERING

The following is a brief description of our capital stock. This summary does not purport to be complete in all respects. This description is subject to and qualified entirely by the terms of our Fourth Amended and Restated Certificate of Incorporation (the "Certificate of Incorporation"), and our amended and restated bylaws, each of which we plan to adopt prior to the completion of this offering and copies of which have been filed with the SEC and are also available upon request from us.

Authorized Capitalization

We have 60,000,000 shares of capital stock authorized under our Certificate of Incorporation, consisting of 50,000,000 shares of common stock with a par value of $0.0001 per share and 10,000,000 shares of preferred stock with a par value of $0.0001 per share. As of December 31, 2016, we had 723,374 shares of common stock outstanding held of record by 72 stockholders and no shares of preferred stock outstanding. Our authorized but unissued shares of common and preferred stock are available for issuance without further action by our stockholders, unless such action is required by applicable law or the rules of any stock exchange or automated quotation system on which our securities may be listed or traded.

Units

Each unit consists of one share of common stock, $0.0001 par value per share, and a warrant to purchase one share of our common stock. The common stock and warrants comprising each unit are not immediately separable. The units are expected to begin trading on or promptly after the date of this prospectus. The common stock and warrants comprising the units will begin trading separately on the first day following the 60th day after the date of this prospectus, or such earlier date as may be determined by National Securities Corporation, as representative of the underwriters, at which time trading of the units will be suspended, the units will be delisted and only our common stock and warrants will continue to be listed for trading on the Nasdaq Capital Market.

Common Stock

Based on the 723,374 shares of common stock outstanding as of March 17, 2017, and assuming (1) the conversion of $1,636,448 aggregate principal amount of our convertible notes (plus accrued interest thereon as of March 17, 2017 into 1,236,894 shares of our common stock) and a conversion date of March 17, 2017 and (2) the issuance by us of 1,680,000 shares of common stock in this offering, there will be 3,640,267 shares of common stock outstanding upon the closing of this offering (or 3,892,267 shares if the underwriters exercise their option to purchase additional units in full).

Holders of our common stock are entitled to such dividends as may be declared by our board of directors out of funds legally available for such purpose. The shares of common stock are neither redeemable nor convertible. Holders of common stock have no preemptive or subscription rights to purchase any of our securities.

Each holder of our common stock is entitled to one vote for each such share outstanding in the holder's name. No holder of common stock is entitled to cumulate votes in voting for directors.

In the event of our liquidation, dissolution or winding up, the holders of our common stock are entitled to receive pro rata our assets, which are legally available for distribution, after payments of all debts and other liabilities. All of the outstanding shares of our common stock are fully paid and non-assessable. The shares of common stock offered by this prospectus will also be fully paid and non-assessable.

Description of Warrants

The following summary of certain terms and provisions of the warrants included in the units offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the warrant, the form of which has been filed as an exhibit to the registration statement of which this prospectus is a part. Prospective investors should carefully review the terms and provisions of the form of warrant for a complete description of the terms and conditions of the warrants.

Form. The warrants will be issued as individual warrants to the investors, all of which will be governed by a warrant agreement.

Exercisability. The warrants will be exercisable on the first trading day following the 60th day after the date of this prospectus or on such date National Securities Corporation, as representative of the underwriters, determines to separate the units, whichever date is earlier, and following such separation at any time up to the date that is five years after their original issuance date. The warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and, at any time a registration statement registering the issuance of the shares of common stock underlying the warrants under the Securities Act is effective and available for the issuance of such shares, or an exemption from registration under the Securities Act is available for the issuance of such shares, by payment in full in immediately available funds for the number of shares of common stock purchased upon such exercise. If a registration statement registering the issuance of the shares of common stock underlying the warrants under the Securities Act is not effective or available and an exemption from registration under the Securities Act is not available for the issuance of such shares, the holder may, in its sole discretion, elect to exercise the warrant through a cashless exercise, in which case the holder would receive upon such exercise the net number of shares of common stock determined according to the formula set forth in the warrant. No fractional shares of common stock will be issued in connection with the exercise of a warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price.

Exercise Limitation. A holder will not have the right to exercise any portion of the warrant if the holder (together with its affiliates) would beneficially own in excess of 4.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the warrants. However, any holder may increase or decrease such percentage to any other percentage not in excess of 9.99% upon at least 61 days' prior notice from the holder to us.

Exercise Price. The warrants will have an exercise price equal to 1 25% of the initial public offering price per unit set forth on the cover page of this prospectus. The exercise price is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock and also upon any distributions of assets, including cash, stock or other property to our stockholders.

Transferability. Subject to applicable laws, the warrants may be offered for sale, sold, transferred or assigned without our consent.

Fundamental Transactions. In the event of a fundamental transaction, as described in the warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding common stock, the holders of the warrants will be entitled to receive upon exercise of the warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the warrants immediately prior to such fundamental transaction.
Rights as a Stockholder. Except as otherwise provided in the warrants or by virtue of such holder's ownership of shares of our common stock, the holder of a warrant does not have the rights or privileges of a holder of our common stock, including any voting rights, until the holder exercises the warrant.

Waivers and Amendments. Subject to certain exceptions, any term of the warrants may be amended or waived with our written consent and the written consent of the holders of at least two-thirds of the then-outstanding warrants.

Stock Options and Warrants

As of March 17, 2017, we had reserved the following shares of common stock for issuance pursuant to stock options, warrants and equity plans:

- 152,812 shares of common stock issuable upon the exercise of outstanding warrants, at a weighted average exercise price of $1 8.94 per share;
- 151,881 shares of our common stock issuable upon the exercise of outstanding stock options issued pursuant to our 2016 Omnibus Incentive Plan, or our Incentive Plan, at a weighted average exercise price of $10.01 per share and an estimated 556,559 shares of our common stock issuable upon the exercise of stock options expected to be granted to our directors and certain of our officers upon the completion of this offering at an exercise price equal to the public offering price set forth on the cover of this prospectus; and
- an estimated 385,252 shares of our common stock that will be reserved for future issuance under our Incentive Plan.

Convertible Promissory Notes

As of March 17, 2017, we had reserved an estimated 1,236,894 shares of our common stock for future issuance under convertible promissory notes. These convertible promissory notes mature on May 12, 2017, accrue interest at the rate of 8% per annum, are payable at maturity and are secured by all assets of the Company, now owned or hereafter acquired. Upon the election of noteholders holding a majority of the outstanding principal amount of the convertible promissory notes, all outstanding convertible promissory notes are convertible into shares of the Company's common stock, in each case at a conversion price of $1.40 per share. Pursuant to such terms, the noteholders have elected to convert all of the outstanding principal and accrued interest on the convertible promissory notes into shares of common stock of the Company immediately prior to the completion of the offering.

Preferred Stock

Our board of directors will have the authority, without further action by the stockholders, to issue up to 10,000,000 shares of preferred stock in one or more series and to fix the designations, powers, rights, preferences, qualifications, limitations and restrictions thereof. These designations, powers, rights and preferences could include voting rights, dividend rights, dissolution rights, conversion rights, exchange rights, redemption rights, liquidation preferences, and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of common stock. The issuance of preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing change in our control or other corporate action. No shares of preferred stock are outstanding, and we have no present plan to issue any shares of preferred stock.

GE Healthcare Right

In April 2016, we entered into a Collaborative Research Agreement with General Electric Company, acting through its GE Healthcare business unit and the GE Global Research Center, or GE Healthcare. The agreement provides that prior to selling any equity interests in our company to a healthcare device manufacturer, we will first offer to negotiate in good faith to sell such equity interests to GE Healthcare.

Anti-Takeover Effects of Certain Provisions of Delaware Law and Our Charter Documents

The following is a summary of certain provisions of Delaware law, our Certificate of Incorporation and our bylaws. This summary does not purport to be complete and is qualified in its entirety by reference to the corporate law of Delaware and our Certificate of Incorporation and bylaws.

Effect of Delaware Anti-Takeover Statute. We are subject to Section 203 of the Delaware General Corporation Law, an anti-takeover law. In general, Section 203 prohibits a Delaware corporation from engaging in any business combination (as defined below) with any interested stockholder (as defined below) for a period of three years following the date that the stockholder became an interested stockholder, unless:

- prior to that date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares of voting stock outstanding (but not the voting stock owned by the interested stockholder) those shares owned by persons who are directors and officers and by excluding employee stock plans in which employee participants do not have the right to determine whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or subsequent to that date, the business combination is approved by the board of directors of the corporation and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

Section 203 defines “business combination” to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- subject to limited exceptions, any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation, or who beneficially owns 15% or more of the outstanding voting stock of the corporation at any time within a three-year period immediately prior to the date of determining whether such person is an interested stockholder, and any entity or person affiliated with or controlling or controlled by any of these entities or persons.

Our Charter Documents. Our charter documents include provisions that may have the effect of discouraging, delaying or preventing a change in control or an unsolicited acquisition proposal that a stockholder might consider favorable, including a proposal that might result in the payment of a premium over the market price for the shares held by our stockholders. Certain of these provisions are summarized in the following paragraphs.

Effects of authorized but unissued common stock. One of the effects of the existence of authorized but unissued common stock may be to enable our board of directors to make more difficult or to discourage an attempt to obtain control of our Company by means of a merger, tender offer, proxy contest or otherwise, and thereby to protect the continuity of management. If, in the due exercise of its fiduciary obligations, the board of directors were to determine that a takeover proposal was not in our best interest, such shares could be issued by the board of directors without stockholder approval in one or more transactions that might prevent or render more difficult or costly the completion of the takeover transaction by diluting the voting or other rights of the proposed acquirer or insurgent stockholder group, by putting a substantial voting block in institutional or other hands that might undertake to support the position of the incumbent board of directors, by effecting an acquisition that might complicate or preclude the takeover, or otherwise.

Cumulative Voting. Our Certificate of Incorporation does not provide for cumulative voting in the election of directors, which would allow holders of less than a majority of the stock to elect some directors.

Vacancies. Our Certificate of Incorporation provides that all vacancies may be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum.

Special Meeting of Stockholders. A special meeting of stockholders may only be called by the Chairman of the board of directors, the President, the Chief Executive Officer, or the board of directors at any time and for any purpose or purposes as shall be stated in the notice of the meeting, or by request of the holders of record of at least 20% of the outstanding shares of common stock. This provision could prevent stockholders from calling a special meeting because, unless certain significant stockholders were to join with them, they might not obtain the percentage necessary to request the meeting. Therefore, stockholders holding less than 20% of the issued and outstanding common stock, without the assistance of management, may be unable to propose a vote on any transaction that would delay, defer or prevent a change of control, even if the transaction were in the best interests of our stockholders.

Transfer Agent and Warrant Agent

The transfer agent of our units and common stock and warrant agent for our warrants included in our units offered hereby is Corporate Stock Transfer, Inc., 3200 Cherry Creek Dr. South, Suite 430, Denver, CO 80209. Its telephone number is (303) 282-4800.

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our securities, and we cannot predict the effect, if any, that market sales of our securities or the availability of our securities for sale will have on the market price of our securities prevailing from time to time. Nevertheless, sales of substantial amounts of our common stock, including shares issued upon exercise of outstanding options and warrants, in the public market following this offering could adversely affect market prices prevailing from time to time and could impair our ability to raise capital through the sale of our equity securities.

Upon the closing of this offering, we will have a total of 3,640,267 shares of our common stock outstanding (or 3,892,267 shares if the underwriters exercise their option to purchase additional units in full), and a total of 5,320,267 shares of our common stock outstanding if the warrants sold in this offering are exercised in full (or 5,824,267 shares if the underwriters exercise their option to purchase additional units in full and the warrants included in such units are exercised) based on the 1,960,267 shares of our common stock outstanding as of March 17, 2017, which includes the conversion immediately prior to the closing of this offering of all convertible promissory notes outstanding as of March 17, 2017 into an aggregate of 1,236,894 shares of common stock at a conversion price of $1.40 per share, as elected by holders of a majority of the outstanding principal amount of such convertible promissory notes. Of these outstanding shares, all of the 1,680,000 units will be freely tradable, except that any shares and warrants purchased in this offering by our affiliates, as that term is defined in Rule 144 under the Securities Act of 1933, as amended, or the Securities Act, would only be able to be sold in compliance with the Rule 144 limitations described below. In addition, we expect that the warrants and the shares issued upon exercise of the warrants issued in this offering will be freely tradeable except for any such warrants or shares issued to our affiliates, as that term is defined in Rule 144 under the Securities Act, which would only be able to be sold in compliance with the Rule 144 limitations described below.

The remaining outstanding shares of our common stock will be deemed “restricted securities” as defined in Rule 144. Restricted securities may be sold in the public market only if they are registered under the Securities Act or if they qualify for an exemption from registration under Rule 144 or Rule 701 promulgated under the Securities Act, which rules are summarized below. In addition, our executive officers, directors and substantially all of our existing stockholders have entered into lock-up agreements with the underwriters under which they have agreed, subject to specific exceptions, not to sell any of our common stock or warrants for at least 180 or 365 days following the date of this prospectus, as described below. As a result of these agreements, subject to the provisions of Rule 144 or Rule 701, based on an assumed offering date of March 17, 2017, securities will be available for sale in the public market as follows:

- Beginning on the date of this prospectus, all of the units sold in this offering will be immediately available for sale in the public market;
- Beginning 181 days after the date of this prospectus, approximately 250,000 additional shares of common stock will become eligible for sale in the public market; and
- The remainder of the shares will be eligible for sale in the public market from time to time thereafter, subject in some cases to the volume and other restrictions of Rule 144, as described below.

Rule 144

In general, under Rule 144 as currently in effect, once we have been subject to public company reporting requirements for at least 90 days, a person who is not deemed to have been one of our affiliates for purposes of the Securities Act at any time during the 90 days preceding a sale and who has beneficially owned the shares proposed to be sold for at least six months, including the holding period of any prior owner other than our affiliates, is entitled to sell those shares without complying with the manner of sale, volume limitation or notice provisions of Rule 144, subject to compliance with the public information requirements of Rule 144. If such a person has beneficially owned the shares proposed to be sold for at least one year, including the holding period of any prior owner other than our affiliates, then that person would be entitled to sell those shares upon expiration of the lock-up agreements described below, without complying with any of the requirements of Rule 144.

In general, under Rule 144, as currently in effect, our affiliates or persons selling shares on behalf of our affiliates are entitled to sell upon expiration of the lock-up agreements described above, within any three-month period, a number of shares that does not exceed the greater of:

- 1% of the number of shares of common stock then outstanding, which will equal approximately 36,403 shares immediately after this offering; or
- the average weekly trading volume of common stock on the Nasdaq Capital Market during the four calendar weeks preceding the filing of a notice on Form 144 with respect to that sale.

Sales under Rule 144 by our affiliates or persons selling shares on behalf of our affiliates are also subject to certain manner of sale provisions and notice requirements and to the availability of current public information about us.

Rule 701

Rule 701 generally allows a stockholder who purchased shares of our common stock pursuant to a written compensatory plan or contract and who is not deemed to have been an affiliate of our company during the immediately preceding 90 days to sell these shares in reliance upon Rule 144, but without being required to comply with the public information or holding period provisions of Rule 144. Rule 701 also permits affiliates of our company to sell their Rule 701 shares under Rule 144 without complying with the holding period requirements of Rule 144. All holders of Rule 701 shares, however, are required by that rule to wait until 90 days after the date of this prospectus before selling those shares pursuant to Rule 701, subject to the market standoff agreements and lock-up agreements described above.

Stock Options

As soon as practicable after the closing of this offering, we intend to file one or more registration statements on Form S-8 under the Securities Act covering all of the shares of our common stock subject to outstanding options and the shares of our common stock reserved for issuance under our stock plans. In addition, we intend to file a registration statement on Form S-8 or such other form as may be required under the Securities Act for the resale of shares of our common stock issued upon the exercise of options that were not granted under Rule 701. We expect to file this registration statement as soon as permitted under the Securities Act and the terms of the lock-up agreements described below. However, the shares registered on Form S-8 may be subject to the volume limitations and the manner of sale, notice and public information requirements of Rule 144 and will not be eligible for resale until expiration of the lock-up and market standoff agreements to which they are subject.

Lock-up Agreements

For a description of the lock-up agreements with the underwriters that restrict sales of shares and warrants by us, our executive officers, and our directors and substantially all our shareholders see the information under the heading “Underwriting.”

UNDERWRITING

We have entered into an underwriting agreement with National Securities Corporation, acting as the representative of the several underwriters named below, with respect to the units subject to this offering. Subject to certain conditions, we have agreed to sell to the underwriters, and the underwriters have severally agreed to purchase, the number of units provided below opposite their respective names.

Underwriters	Number of Units
National Securities Corporation	1,575,650
Dougherty & Company LLC	104,350
Total	1,680,000

The underwriters are offering the units subject to their acceptance of the units from us and subject to prior sale. The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the units offered by this prospectus are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriters are obligated to take and pay for all of the units if any such units are taken. However, the underwriters are not required to take or pay for the units covered by the underwriters' over-allotment option described below.

Over-Allotment Option

We have granted the underwriters an option, exercisable for 45 days from the date of this prospectus, to purchase up to an additional 252,000 units to cover over-allotments, if any, of the units offered by this prospectus. If the underwriters exercise this option, each underwriter will be obligated, subject to certain conditions, to purchase a number of additional units proportionate to that underwriter's initial purchase commitment as indicated in the table above for which the option has been exercised.

Discount, Commissions and Expenses

The underwriters have advised us that they propose to offer the units to the public at the initial public offering price set forth on the cover page of this prospectus and to certain dealers at that price less a concession not in excess of $0.24 per unit. The underwriters may allow, and certain dealers may reallow, a discount from the concession not in excess of $0.08 per unit to certain brokers and dealers. After this offering, the initial public offering price, concession and reallowance to dealers may be changed by the representative. No such change shall change the amount of proceeds to be received by us as set forth on the cover page of this prospectus. The units are offered by the underwriters as stated herein, subject to receipt and acceptance by them and subject to their right to reject any order in whole or in part. The underwriters have informed us that they do not intend to confirm sales to any accounts over which they exercise discretionary authority.

The following table shows the underwriting discount payable to the underwriters by us in connection with this offering. Such amounts are shown assuming both no exercise and full exercise of the underwriters' over-allotment option to purchase additional units.

	Per Unit(1)	Total Without Exercise of Over-Allotment Option	Total With Exercise of Over-Allotment Option
Initial public offering price	$ 5.00	$ 8,400,000	$ 9,660,000
Underwriting discount	$ 0.40	$ 672,000	$ 772,800

(1) Does not include the warrants to purchase shares of common stock equal to 8% of the number of units sold in the offering to be issued to the underwriters at the closing.

We have agreed to pay the underwriters a non-accountable expense allowance equal to 1% of the public offering price of securities in this offering. Additionally, we have agreed to reimburse the underwriters for expenses relating to this offering, subject to a cap of $162,500, which includes (i) the fees and expenses of underwriters' counsel; (ii) the fees and expenses of the underwriters related to the road show; and (iii) the fees, expenses and disbursements relating to background checks of the Company's officers and directors. We estimate that expenses payable by us in connection with this offering, other than the underwriting discount referred to above but including the reimbursement of the underwriters' expenses and the fees and expenses relating to compliance with state securities laws and clearance of the offering with the Financial Industry Regulatory Authority, Inc., will be approximately $750,000.

Underwriters' Warrants

We have also agreed to issue underwriters' warrants to purchase a number of our shares of common stock equal to an aggregate of 8% of the number of units issued in this offering. The warrants will have an exercise price equal to 125% of the initial public offering price of the units sold in this offering and may be exercised on a cashless basis. The warrants are not redeemable by us. Each warrant also provides for one demand registration of the shares of common stock underlying the warrant at our expense and an additional demand at the warrant holder's expense during the five-year period commencing on the date six months after the date of effectiveness of this offering. The warrants will provide for adjustment in the number and price of such warrants (and the shares of common stock underlying such warrants) in the event of recapitalization, merger or other fundamental transaction. The warrants and the underlying shares of common stock have been deemed compensation by FINRA and are therefore subject to FINRA Rule 5110(g)(1). In accordance with FINRA Rule 5110(g)(1), neither the underwriters' warrants nor any shares of our common stock issued upon exercise of the underwriters' 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 of effectiveness or commencement of sales of the offering pursuant to which the underwriters' warrants are being issued, except the transfer of any security:

- by operation of law or by reason of reorganization of the Company;
- to any FINRA member firm participating in this 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 securities of the Company held by either an underwriter or a 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.

No Public Market

Prior to this offering, there has not been a public market for our units, common stock or warrants in the United States and the initial public offering price for our units will be determined through negotiations between us and the underwriters. Among the factors to be considered in these negotiations will be prevailing market conditions, our financial information, market valuations of other companies that we and the underwriters believe to be comparable to us, estimates of our business potential, the present state of our development and other factors deemed relevant.

No assurance can be given that the initial public offering price will correspond to the price at which our units will trade in the public market subsequent to this offering or that an active trading market for our units, common stock or warrants will develop and continue after this offering.

Indemnification

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act of 1933, as amended, or the Securities Act, or to contribute to payments that the underwriters may be required to make in respect of those liabilities.

Lock-up Agreements

We, our officers, directors and substantially all of our existing stockholders have agreed, subject to limited exceptions, for a period of 365 days after the date of the underwriting agreement, not to offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise dispose of, directly or indirectly any shares of common stock or any securities convertible into or exchangeable for our units, common stock, including warrants, either owned as of the date of the underwriting agreement or thereafter acquired without the prior written consent of the representative; provided, that the lock-up period applicable to persons other than our officers and directors with respect to shares purchased from us prior to the date hereof for a purchase price per share of $10.01 or more is 180 days. The representative may, in its sole discretion and at any time or from time to time before the termination of the lock-up period release all or any portion of the securities subject to lock-up agreements; provided, however, that, subject to limited exceptions, at least three business days before the release or waiver or any lock-up agreement, the representative must notify us of the impending release or waiver and we will be required to announce the impending release or waiver through a major news service at least two business days before the release or waiver.

Price Stabilization, Short Positions and Penalty Bids

In connection with the offering the underwriters may engage in stabilizing transactions, over-allotment transactions, syndicate covering transactions and penalty bids in accordance with Regulation M under the Exchange Act:

- Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum.
- Over-allotment involves sales by the underwriters of securities in excess of the number of securities the underwriters are obligated to purchase, which creates a syndicate short position. The short position may be either a covered short position or a naked short position. In a covered short position, the number of securities over-allotted by the underwriters is not greater than the number of securities that they may purchase in the over-allotment option. In a naked short position, the number of securities involved is greater than the number of securities in the over-allotment option. The underwriters may close out any covered short position by either exercising their over-allotment option and/or purchasing securities in the open market.
- Syndicate covering transactions involve purchases of securities in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of securities to close out the short position, the underwriters will consider, among other things, the price of securities available for purchase in the open market as compared to the price at which it may purchase securities through the over-allotment option. If the underwriters sell more securities than could be covered by the over-allotment option, a naked short position, the position can only be closed out by buying securities in the open market. A naked short position is more likely to be created if the underwriters are concerned that there could be downward pressure on the price of the securities in the open market after pricing that could adversely affect investors who purchase in the offering.
- Penalty bids permit the representative to reclaim a selling concession from a syndicate member when the securities originally sold by the syndicate member is purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our securities or preventing or retarding a decline in the market price of the securities. As a result, the price of our securities may be higher than the price that might otherwise exist in the open market. Neither we nor the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of the securities. In addition, neither we nor the underwriters make any representations that the underwriters will engage in these stabilizing transactions or that any transaction, once commenced, will not be discontinued without notice.

Listing and Transfer and Warrant Agent

Our units have been approved for listing on the Nasdaq Capital Market under the trading the symbol "NDRAU" and our common stock and warrants under the symbols "NDRA" and "NDRAW," respectively. The transfer agent of our units and common stock is Corporate Stock Transfer, Inc., 3200 Cherry Creek Dr. South, Suite 430, Denver, CO 80209. Its telephone number is (303) 282-4800. Corporate Stock Transfer, Inc. will also act as the warrant agent for the warrants.

Electronic Distribution

This prospectus in electronic format may be made available on websites or through other online services maintained by the underwriters, or by their affiliates. Other than this prospectus in electronic format, the information on any underwriter's website and any information contained in any other website maintained by any underwriter is not part of this prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or the underwriters in their capacity as underwriters, and should not be relied upon by investors.

Other

From time to time, certain of the underwriters and/or their affiliates have provided, and may in the future provide, various investment banking and other financial services for us for which services they have received and, may in the future receive, customary fees. In the course of their businesses, the underwriters and their affiliates may actively trade our securities or loans for their own account or for the accounts of customers, and, accordingly, the underwriters and their affiliates may at any time hold long or short positions in such securities or loans. Except for services provided in connection with this offering, no underwriter has provided any investment banking or other financial services to us during the 180-day period preceding the date of this prospectus and we do not expect to retain any underwriter to perform any investment banking or other financial services for at least 90 days after the date of this prospectus.

CONFLICTS OF INTEREST

Under the rules of FINRA, National Securities Corporation, an underwriter in this offering, has a conflict of interest in offering our units since affiliates of National Securities Corporation beneficially own more than 10% of our outstanding common stock. As a result, National Securities Corporation is deemed to have a "conflict of interest" within the meaning of FINRA Rule 5121. Robert C. Clifford and Daniel Landry, stockholders of ours who, before this offering, beneficially own 10.1% and 8.8% of our common stock, respectively, are both principals of Liquid Venture Partners, LLC, an affiliate of National Securities Corporation.

Accordingly, this offering is being made in compliance with the applicable requirements of Rule 5121. FINRA Rule 5121 prohibits National Securities Corporation from making sales to discretionary accounts without the prior written approval of the account holder and requires a "qualified independent underwriter," as defined in Rule 5121, participate in the preparation of the registration statement and prospectus and exercise the usual standards of due diligence with respect thereto. Dougherty & Company LLC is assuming the responsibilities of acting as the qualified independent underwriter in this offering and is undertaking the legal responsibilities and liabilities of an underwriter under the Securities Act, that specifically include those inherent in Section 11 thereunder. Dougherty & Company LLC will receive $50,000 from us as compensation for that role. We have agreed to indemnify Dougherty & Company LLC against certain liabilities incurred in connection with acting as a "qualified independent underwriter," including liabilities under the Securities Act.

Other Relationships

From time to time, the underwriters and certain of their affiliates have provided, and may provide in the future, various advisory, investment and commercial banking and other services to us in the ordinary course of business, for which they have received and may continue to receive customary fees and commissions. However, except as disclosed in this prospectus, we have no present arrangements with any underwriter for any further services. See "Certain Relationships and Related Party Transactions."

NOTICE TO INVESTORS

Notice to Investors in the United Kingdom

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive, each a Relevant Member State, an offer to the public of any securities which are the subject of the offering contemplated by this prospectus may not be made in that Relevant Member State except that an offer to the public in that Relevant Member State of any such securities may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

(a) to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;
(b) to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000 and (3) an annual net turnover of more than €50,000,000, as shown in its last annual or consolidated accounts;
(c) by the underwriter to fewer than 100 natural or legal persons (other than qualified investors as defined in the Prospectus Directive); or
(d) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of these securities shall result in a requirement for the publication by the issuer or the underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer to the public" in relation to any of the securities in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any such securities to be offered so as to enable an investor to decide to purchase any such securities, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression "Prospectus Directive" means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.
Each underwriter has represented, warranted and agreed that:

(a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated any invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000 (the FSMA)) received by it in connection with the issue or sale of any of the securities in circumstances in which section 21(1) of the FSMA does not apply to the issuer; and
(b) it has complied with and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the securities in, from or otherwise involving the United Kingdom.

European Economic Area

In particular, this document does not constitute an approved prospectus in accordance with European Commission's Regulation on Prospectuses no. 809/2004 and no such prospectus is to be prepared and approved in connection with this offering. Accordingly, in relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (being the Directive of the European Parliament and of the Council 2003/71/EC and including any relevant implementing measure in each Relevant Member State) (each, a Relevant Member State), with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the Relevant Implementation Date) an offer of securities to the public may not be made in that Relevant Member State prior to the publication of a prospectus in relation to such securities which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive, except that it may, with effect from and including the Relevant Implementation Date, make an offer of securities to the public in that Relevant Member State at any time:

- to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;
- to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000; and (3) an annual net turnover of more than €50,000,000, as shown in the last annual or consolidated accounts; or
- in any other circumstances which do not require the publication by the Issuer of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer of securities to the public" in relation to any of the securities in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe for the securities, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State. For these purposes the shares of our common stock and warrants offered hereby are "securities."

Notice to Prospective Investors in Canada

The units may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 *Prospectus Exemptions* or subsection 73.3(1) of the *Securities Act* (Ontario), and are permitted clients, as defined in National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*. Any resale of the units must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

LEGAL MATTERS

The validity of the units offered hereby will be passed upon for us by K&L Gates LLP, Charlotte, North Carolina. Faegre Baker Daniels LLP, Minneapolis, Minnesota, has acted as counsel for the underwriters in connection with certain legal matters related to this offering.

EXPERTS

The financial statements of ENDRA Life Sciences Inc. as of December 31, 2016 and December 31, 2015 included in this prospectus have been audited by RBSM LLP, independent registered public accounting firm. We have included these financial statements in this prospectus in reliance upon the report of RBSM LLP, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1, including exhibits, under the Securities Act that registers the units to be sold in this offering. This prospectus does not contain all the information contained in the registration statement and the exhibits filed as part of the registration statement. For further information with respect to us and our securities, we refer you to the registration statement and the exhibits filed as part of the registration statement. Statements contained in this prospectus as to the contents of any contract or other document are not necessarily complete. If a contract or document has been filed as an exhibit to the registration statement, we refer you to the copies of the contract or document that has been filed. Each statement in this prospectus relating to a contract or document filed as an exhibit is qualified in all respects by the filed exhibit.

Upon the consummation of this offering, we will file annual, quarterly and current reports, proxy statements and other information with the SEC under the Exchange Act. You can read our SEC filings, including the registration statement, at the SEC's website at www.sec.gov.

You may read and copy this information at the SEC's Public Reference Room at 100 F Street, N.E., Washington D.C. 20549, at prescribed rates. You may obtain information regarding the operation of the public reference room by calling the SEC at 1-800-SEC-0330.

The SEC also maintains a website (http://www.sec.gov) that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC.

Our website can be accessed at www.endrainc.com. The information contained on, or that may be obtained from, our website is not, and shall not be deemed to be, a part of this prospectus.

The representations, warranties and covenants made by us in any agreement that is filed as an exhibit to the registration statement of which this prospectus is a part were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were made as of an earlier date. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

This prospectus includes statistical and other industry and market data that we obtained from industry publications and research, surveys and studies conducted by third parties. Industry publications and third-party research, surveys and studies generally indicate that they have gathered their information from sources they believe to be reliable, although they do not guarantee the accuracy or completeness of such information. While we believe that these industry publications and third-party research, surveys and studies are reliable, we have not independently verified such data.

ENDRA LIFE SCIENCES INC.

FINANCIAL STATEMENTS

Table of Contents

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
ENDRA Life Sciences Inc.

We have audited the accompanying balance sheets of ENDRA Life Sciences Inc. (the "Company") as of December 31, 2016 and 2015 and the related statements of operations, stockholders' equity (deficit) and cash flows for each of the years in the two-year period ended December 31, 2016. The Company's management is responsible for these financial statements. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform an audit of the Company's 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 includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of ENDRA Life Sciences Inc. as of December 31, 2016 and 2015 and the results of its operations and cash flows for each of the years in the two-year period ended December 31, 2016 in conformity with accounting principles generally accepted in the United States of America.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 2 to the financial statements, the Company has suffered losses from operations, which raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 2. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

As described in Note 3, the financial statements for the year ended December 31, 2015 have been restated. We audited the adjustments described in Note 3 that were applied to restate 2015 financial statements. In our opinion, such adjustments are appropriate and have been properly applied.

/s/ RBSM LLP
Henderson, Nevada
March 24, 2017

ENDRA LIFE SCIENCES INC.
BALANCE SHEETS

Assets	December 31, 2016	December 31, 2015 (Restated)
Assets		
Cash	$ 144,953	$ 19,128
Inventory	40,105	99,004
Other current assets	10,535	8,486
Total Current Assets	195,593	126,618
Other Assets		
Fixed assets, net	295,168	360,104
Total Assets	$ 490,761	$ 486,722
Liabilities and Stockholders' Equity		
Current Liabilities:		
Accounts payable and accrued liabilities	$ 434,552	$ 236,421
Notes payable	50,000	-
Convertible notes payable, related party, net of discount	99,804	-
Convertible notes payable, net of discount	800,172	-
Total Current Liabilities	1,384,528	236,421
Total Liabilities	1,384,528	236,421
Stockholders' Equity (Deficit)		
Preferred stock, $0.0001 par value; 10,000,000 shares authorized; no shares issued or outstanding	-	-
Common stock, $0.0001 par value; 50,000,000 shares authorized; 2,531,808 and 2,528,311 shares issued and outstanding	253	253
Stock payable	81,000	45,000
Additional paid in capital	11,543,453	9,948,151
Accumulated deficit	(12,518,473)	(9,743,104)
Total Stockholders' Equity (Deficit)	(893,767)	250,300
Total Liabilities and Stockholders' Equity (Deficit)	$ 490,761	$ 486,722

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

ENDRA LIFE SCIENCES INC.
STATEMENTS OF OPERATIONS

	Year Ended December 31, 2016	Year Ended December 31, 2015 (Restated)
Revenue	$ 515,582	$ 1,410,065
Cost of Goods Sold	235,878	666,233
Gross Profit	$ 279,704	$ 743,831
Operating Expenses		
Research and development	495,377	1,038,878
Sales and marketing	34,130	50,635
General and administrative	1,541,956	1,222,888
Total operating expenses	2,071,462	2,312,402
Operating income (loss)	(1,791,759)	(1,568,570)
Other Expenses		
Loss on warrant exercise	(5,823)	(711,343)
Other income (expense)	(977,787)	709
Total other expenses	(983,610)	(710,634)
Income/(Loss) from operations before Taxes	(2,775,369)	(2,279,204)
Provision for income taxes	-	-
Net Income/(Loss)	$ (2,775,369)	$ (2,279,204)
Net loss per share - basic and diluted	$ (1.10)	$ (0.98)
Weighted average common shares - basic and diluted	2,531,626	2,320,045

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

ENDRA LIFE SCIENCES INC.
STATEMENT OF STOCKHOLDERS' EQUITY
(Restated)

	Common stock		Additional Paid in Capital	Stock to be Issued	Accumulated Equity/(Deficit)	Total Stockholders' Equity/(Deficit)
	Shares	Amount				
Balance as of December 31, 2014	2,002,336	$ 200	$ 8,060,032	$ 9,000	$ (7,463,899)	$ 605,333
Common stock issued for cash	87,415	9	249,991	-	-	250,000
Common stock issued for exercise of warrants	412,045	41	589,183	-	-	589,224
Common stock issued for accrued salaries - related parties	26,515	3	63,765	-	-	63,768
Common stock to be issued for service	-	-	-	36,000	-	36,000
Additional warrants issued during exchange	-	-	686,343	-	-	686,343
Loss on exercise of warrant	-	-	25,000	-	-	25,000
Fair value of vested stock options	-	-	273,837	-	-	273,837
Net loss	-	-	-	-	(2,279,204)	(2,279,204)
Balance as of December 31, 2015	2,528,311	$ 253	$ 9,948,152	$ 45,000	$ (9,743,104)	$ 250,300
Common stock issued for exercise of warrants	3,497	-	5,000	-	-	5,000
Common stock to be issued for service	-	-	-	36,000	-	36,000
Imputed interest on promissory notes	-	-	3,704	-	-	3,704
Additional warrants issued during exchange	-	-	5,823		-	5,823
Fair value of vested stock options	-	-	194,326	-	-	194,326
Discount on convertible notes	-	-	1,386,448	-	-	1,386,448
Net loss	-	-	-	-	(2,775,369)	(2,775,369)
Balance as of December 31, 2016	2,531,808	$ 253	$11,543,453	$ 81,000	$(12,518,473)	$ (893,767)

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

ENDRA LIFE SCIENCES INC.
STATEMENTS OF CASH FLOWS

	Year Ended December 31, 2016	Year Ended December 31, 2015
Cash Flows from Operating Activities		
Net loss	$ (2,775,369)	$ (2,279,204)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	64,936	72,225
Common stock and options issued for services	230,326	309,837
Additional warrants issued during exchange	5,823	686,343
Interest on discount of convertible debt	899,976	-
Imputed interest on promissory note	3,704	-
Loss on warrant exercise	-	25,000
Changes in operating assets and liabilities:		
Increase in inventory	58,899	139,984
Increase in other asset	(2,049)	500
Increase in accounts payable and accrued liabilities	198,131	202,588
Net cash used in operating activities	(1,315,623)	(842,727)
Cash Flows from Investing Activities:		
Purchases of fixed assets	-	(133,811)
Net cash used in investing activities	-	(133,811)
Cash Flows from Financing Activities		
Proceeds from issuance of common stock	5,000	839,224
Proceeds from notes payable	50,000	-
Proceeds from convertible notes, related party	132,000	-
Proceeds from convertible notes	1,254,448	-
Net cash provided by financing activities	1,441,448	839,224
Net Increase/(Decrease) in cash	125,825	(137,314)
Cash, beginning of period	19,128	156,442
Cash, end of period	$ 144,953	$ 19,128
Supplemental disclosures:		
Interest paid	$ -	$ -
Income tax paid	$ -	$ -
Supplemental disclosures of non-cash Items:		
Discount on convertible notes	$ 1,386,448	$ -
Common shares issued for accrued salaries - related parties	$ -	$ 63,768
Common shares to be issued for accrued salaries - related parties	$ -	$ 78,565

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

Note 1 – Nature of the Business

ENDRA Life Sciences Inc. (“ENDRA” or the “Company”) was incorporated on July 18, 2007 as a Delaware corporation.

ENDRA has developed a medical imaging technology based on the thermoacoustic effect that significantly improves the sensitivity and specificity of clinical ultrasound.

Note 2 – Summary of Significant Accounting Policies

Use of Estimates

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

Management makes estimates that affect certain accounts including deferred income tax assets, accrued expenses, fair value of equity instruments and reserves for any other commitments or contingencies. Any adjustments applied to estimates are recognized in the period in which such adjustments are determined.

Cash and Cash Equivalents

The Company considers all cash on hand and in banks, including accounts in book overdraft positions, certificates of deposit and other highly-liquid investments with maturities of three months or less, when purchased, to be cash and cash equivalents. As of December 31, 2016 and December 31, 2015 the Company had no cash equivalents.

Inventory

The Company's inventory is stated at the lower of cost or estimated realizable value, with cost primarily determined on a weighted-average cost basis on the first-in, first-out (“FIFO”) method. The Company periodically determines whether a reserve should be taken for devaluation or obsolescence of inventory. As of December 31, 2016 and December 31, 2015 no such reserve was taken.

Capitalization of Fixed Assets

The Company capitalizes expenditures related to property and equipment, subject to a minimum rule, that have a useful life greater than one year for: (1) assets purchased; (2) existing assets that are replaced, improved or the useful lives have been extended; or (3) all land, regardless of cost. Acquisitions of new assets, additions, replacements and improvements (other than land) costing less than the minimum rule in addition to maintenance and repair costs, including any planned major maintenance activities, are expensed as incurred.

Capitalization of Intangible Assets

The Company records the purchase of intangible assets not purchased in a business combination in accordance with the ASC Topic 350.

Revenue Recognition

The Company recognizes revenue in accordance with the requirements of ASC 605-10-599, which directs that it should recognize revenue when (1) persuasive evidence of an arrangement exists (contracts); (2) delivery has occurred; (3) the seller's price is fixed or determinable (per the customer's contract); and (4) collectability is reasonably assured (based upon our credit policy). For products sold to end users revenue is recognized when title has passed to the customer and collectability is reasonably assured; and no further efforts are required. Future revenue from anticipated new products will follow this same policy.

Advertising Expense

The cost of advertising is expensed as incurred. Advertising expense for the year ended December 31, 2016 was approximately $3,936. Advertising expense for the year ended December 31, 2015 was approximately $7,223.

Income Taxes

The Company utilizes ASC 740, "Income Taxes," which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements or tax returns. Under this method, deferred tax assets and liabilities are determined based on the difference between the tax basis of assets and liabilities and their financial reporting amounts based on enacted tax laws and statutory tax rates applicable to the periods in which the differences are expected to affect taxable income. A valuation allowance is recorded when it is "more likely-than-not" that a deferred tax asset will not be realized.

The Company generated a deferred tax asset through net operating loss carry-forwards. However, a valuation allowance of 100% has been established due to the uncertainty of the Company's realization of the net operating loss carry forward prior to its expiration.

Research and Development Costs

The Company follows ASC 730-10, "Research and Development". Research and development costs are charged to the statement of operations as incurred. During the years ended December 31, 2016 and 2015 the Company incurred $495,377 and $1,038,878 of expenses related to research and development costs, respectively.

Net Earnings (Loss) Per Common Share

The Company computes earnings per share under ASC Subtopic 260-10, Earnings Per Share ("ASC 260-10"). Basic earnings (loss) per share is computed by dividing the net income (loss) attributable to the common stockholders (the numerator) by the weighted average number of shares of common stock outstanding (the denominator) during the reporting periods. Diluted loss per share is computed by increasing the denominator by the weighted average number of additional shares that could have been outstanding from securities convertible into common stock (using the "treasury stock" method), unless their effect on net loss per share is anti-dilutive. There were 4,712,543 and 1,332,921 potentially dilutive shares, which include outstanding common stock options, warrants, and convertible notes, as of December 31, 2016 and December 31, 2015.

The potential shares, which are excluded from the determination of basic and diluted net loss per share as their effect is anti-dilutive, are as follows:

	December 31, 2016	December 31, 2015
Options to purchase common stock	531,584	499,012
Warrants to purchase common stock	534,842	833,909
Convertible notes	3,646,117	-
Potential equivalent shares excluded	**4,712,543**	**1,332,921**

Fair Value Measurements

Disclosures about fair value of financial instruments require disclosure of the fair value information, whether or not recognized in our balance sheet, where it is practicable to estimate that value. As of December 31, 2016 and 2015, the amounts reported for cash, accrued liabilities and accrued interest approximated fair value because of their short maturities.

In accordance with ASC Topic 820, "Fair Value Measurements and Disclosures," we measure certain financial instruments at fair value on a recurring basis. ASC Topic 820 defines fair value, established a framework for measuring fair value in accordance with accounting principles generally accepted in the United States, and expands disclosures about fair value measurements.

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. ASC Topic 820 established a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1 measurements) and the lowest priority to unobservable inputs (level 3 measurements). These tiers include:

- Level 1, defined as observable inputs such as quoted prices for identical instruments in active markets;
- Level 2, defined as inputs other than quoted prices in active markets that are either directly or indirectly observable such as quoted prices for similar instruments in active markets or quoted prices for identical or similar instruments in markets that are not active; and
- Level 3, defined as unobservable inputs in which little or no market data exists, therefore requiring an entity to develop its own assumptions, such as valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are unobservable.

Share-based Compensation

The Company's Second Amended and Restated 2013 Stock Incentive Plan (the "Plan"), which has been approved by its board of directors, permits the grant of share options and shares to its employees and consultants for up to 1,318,182 shares of common stock. The Company records share-based compensation in accordance with the provisions of the Share-based Compensation Topic of the FASB Codification. The guidance requires the use of option-pricing models that require the input of highly subjective assumptions, including the option's expected life and the price volatility of the underlying stock. The fair value of each option grant is estimated on the date of grant using the Black-Scholes option valuation model, and the resulting charge is expensed using the straight-line attribution method over the vesting period. The Company has elected to use the calculated value method to account for the options it issued in 2016 and 2015. A nonpublic entity that is unable to estimate the expected volatility of the price of its underlying share may measure awards based on a "calculated value," which substitutes the volatility of appropriate public companies (representative of the company's size and industry) as a bench mark for the volatility of the entity's own share price. Currently, there is no active market for the company's common shares. The Company has used the historical closing values of these companies to estimate volatility, which was calculated to be 90%.

Stock compensation expense recognized during the period is based on the value of share-based awards that were expected to vest during the period adjusted for estimated forfeitures. The estimated fair value of grants of stock options and warrants to non-employees of the Company is charged to expense, if applicable, in the financial statements. These options vest in the same manner as the employee options granted under each of the option plans as described above.

Beneficial Conversion Feature

If the conversion features of conventional convertible debt provides for a rate of conversion that is below market value, this feature is characterized as a beneficial conversion feature ("BCF"). A BCF is recorded by the Company as a debt discount pursuant to ASC Topic 47020 "Debt with Conversion and Other Options." In those circumstances, the convertible debt is recorded net of the discount related to the BCF and the Company amortizes the discount to interest expense over the life of the debt using the effective interest method.

Debt Discount

The Company determines if the convertible debenture should be accounted for as liability or equity under ASC 480, Liabilities — Distinguishing Liabilities from Equity. ASC 480, applies to certain contracts involving a company's own equity, and requires that issuers classify the following freestanding financial instruments as liabilities. Mandatorily redeemable financial instruments, obligations that require or may require repurchase of the issuer's equity shares by transferring assets (e.g., written put options and forward purchase contracts), and certain obligations where at inception the monetary value of the obligation is based solely or predominantly on:

- A fixed monetary amount known at inception, for example, a payable settleable with a variable number of the issuer's equity shares with an issuance date fair value equal to a fixed dollar amount;
- Variations in something other than the fair value of the issuer's equity shares, for example, a financial instrument indexed to the S&P 500 and settleable with a variable number of the issuer's equity shares; or
- Variations inversely related to changes in the fair value of the issuer's equity shares, for example, a written put that could be net share settled. If the entity determined the instrument meets the guidance under ASC 480 the instrument is accounted for as a liability with a respective debt discount. The Company records debt discounts in connection with raising funds through the issuance of promissory notes (see Note 6). These costs are amortized to noncash interest expense over the life of the debt. If a conversion of the underlying debt occurs, a proportionate share of the unamortized amounts is immediately expensed.

Going Concern

The Company's financial statements are prepared using U.S. GAAP applicable to a going concern, which contemplates the realization of assets and liquidation of liabilities in the normal course of business. The Company has limited operating history and had a cumulative net loss from inception to December 31, 2016 of $12,518,473. The Company has a working capital deficit of $1,188,934 as of December 31, 2016. The Company has not yet established an ongoing source of revenue sufficient to cover its operating costs and to allow it to continue as a going concern. The accompanying financial statements for the period ended December 31, 2016, have been prepared assuming the Company will continue as a going concern. The Company believes its cash resources are insufficient to meet its anticipated needs during the next twelve months. The Company will require additional financing to fund its future planned operations, including research and development and commercialization of its products.

The ability of the Company to continue as a going concern is dependent on the Company obtaining adequate capital to fund operating losses until it establishes a revenue stream and becomes profitable. Management's plans to continue as a going concern include raising additional capital through borrowing and sales of common stock. However, management cannot provide any assurances that the Company will be successful in accomplishing any of its plans. If the Company is not able to obtain the necessary additional financing on a timely basis, the Company will be forced to delay or scale down some or all of its development activities or perhaps even cease the operation of its business. The ability of the Company to continue as a going concern is dependent upon its ability to successfully secure other sources of financing and attain profitable operations. There is substantial doubt about the ability of the Company to continue as a going concern within one year after the date that the financial statements are issued. The accompanying financial statements do not include any adjustments that might be necessary if the Company is unable to continue as a going concern.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2014-09, Revenue from Contracts with Customers. ASU 2014-09 is a comprehensive revenue recognition standard that will supersede nearly all existing revenue recognition guidance under current U.S. GAAP and replace it with a principle based approach for determining revenue recognition. Under ASU 2014-09, revenue is recognized when a customer obtains control of promised goods or services and is recognized in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services. In addition, the standard requires disclosure of the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. The FASB has recently issued ASU 2016-08, ASU 2016-10, ASU 2016-11, ASU 2016-12, and ASU 2016-20 all of which clarify certain implementation guidance within ASU 2014-09. ASU 2014-09 is effective for interim and annual periods beginning after December 15, 2017. Early adoption is permitted only in annual reporting periods beginning after December 15, 2016, including interim periods therein. The standard can be adopted either retrospectively to each prior reporting period presented (full retrospective method), or retrospectively with the cumulative effect of initially applying the guidance recognized at the date of initial application (the cumulative catch-up transition method). The Company is currently in the process of analyzing the information necessary to determine the impact of adopting this new guidance on its financial position, results of operations, and cash flows. The Company will adopt the provisions of this statement in the first quarter of fiscal 2018.

In February 2016, the FASB issued ASU No. 2016-02, Leases. ASU 2016-02 requires a lessee to record a right of use asset and a corresponding lease liability on the balance sheet for all leases with terms longer than 12 months. ASU 2016-02 is effective for all interim and annual reporting periods beginning after December 15, 2018. Early adoption is permitted. A modified retrospective transition approach is required for lessees for capital and operating leases existing at, or entered into after, the beginning of the earliest period presented in the financial statements. The Company is currently evaluating the expected impact that the standard could have on its financial statements and related disclosures.

In March 2016, the FASB issued the ASU 2016-09, Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting. The amendments in this ASU require, among other things, that all income tax effects of awards be recognized in the income statement when the awards vest or are settled. The ASU also allows for an employer to repurchase more of an employee's shares than it can today for tax withholding purposes without triggering liability accounting and allows for a policy election to account for forfeitures as they occur. The amendments in this ASU are effective for fiscal years beginning after December 15, 2016, including interim periods within those fiscal years. Early adoption is permitted for any entity in any interim or annual period. The Company is currently evaluating the expected impact that the standard could have on its financial statements and related disclosure

Other recent accounting pronouncements issued by the FASB, including its Emerging Issues Task Force, the American Institute of Certified Public Accountants, and the Securities and Exchange Commission did not or are not believed by management to have a material impact on the Company's present or future financial statements.

Note 3 – Restatement

The Company determined that a restatement of its originally issued financial statements for the period ended December 31, 2015 was required for the following reasons:

- Due to additional accrued salary and reclassification of accrued salary from stock payable to accrued liabilities, the Company has restated its balance sheet, statement of operations, statement of stockholders' equity (deficit) and statement of cash flows for the year ended December 31, 2015 to account for the following:

  - ❑ Increase of accrued liabilities of $150,734; and
  - ❑ Reduction of stock payable by $78,565.

- Due to a revision of its inventory and cost of goods sold, the Company has restated its balance sheet, statement of operations, statement of stockholders' equity (deficit) and statement of cash flows for the year ended December 31, 2015 to account for the following:

  - ❑ Increase of inventory of $99,004;
  - ❑ Increase to fixed assets, net, of $85,278 in 2015; and
  - ❑ Increase to cost of goods sold by $55,936.

A summary of the effect of the restatements for December 31, 2015 is as follows:

	As Previously Reported (1)	Restatement Adjustments	As Restated
Balance Sheet - December 31, 2015			
Inventory	$ -	$ 99,004	$ 99,004
Total current assets	$ 27,614	$ 99,004	$ 126,618
Fixed assets, net	$ 274,826	$ 85,278	$ 360,104
Total assets	$ 302,440	$ 184,282	$ 486,722
Accounts payable and accrued liabilities	$ 85,687	$ 150,734	$ 236,421
Total liabilities	$ 85,687	$ 150,734	$ 236,421
Stock payable	$ 123,565	$ (78,565)	$ 45,000
Accumulated deficit	$ (9,855,217)	$ 112,113	$ (9,743,104)
Total stockholders' equity	$ 216,753	$ 33,547	$ 250,300
Statement of Operations - For the Year Ended December 31, 2015			
Cost of goods sold	$ 610,297	$ 55,936	$ 666,233
General and administrative	$ 375,885	$ 847,004	$ 1,222,888
Depreciation and amortization	$ 62,655	$ 9,570	$ 72,225
Net loss	$ (2,147,634)	$ (131,570)	$ (2,279,204)
Statement of Cash Flows - For the Year Ended December 31, 2015			
Net loss	$ (2,147,634)	$ (131,570)	$ (2,279,204)
Increase/(Decrease in inventory	$ -	$ 139,984	$ 139,984
Decrease/(Increase) in accounts payable and accrued liabilities	$ 52,956	$ 149,632	$ 202,588
Purchases of fixed assets	$ (29,963)	$ (103,848)	$ (133,811)

(1) Certain reclassifications have been made to the 2015 financial statement amounts and disclosures. A portion of wages and related expenses for the year ended December 31, 2015 have been reclassified in the financial statements from general and administrative to research and development expenses.

Note 4 – Inventory

As of December 31, 2016 and 2015, inventory consisted of certain finished assemblies to be used in the assembly of a Nexus 128 system. As of December 31, 2016 and 2015, no orders were pending for such units.

Note 5 – Fixed Assets

As of December 31, 2016 and 2015, fixed assets consisted of the following:

	December 31, 2016	December 31, 2015
Computer equipment and fixtures	$ 571,318	$ 571,318
Accumulated depreciation	(276,150)	(211,214)
Fixed assets, net	**$ 295,168**	**$ 360,104**

Depreciation expense for the years ended December 31, 2016 and 2015 was $64,936 and $72,225, respectively.

Note 6 – Current Liabilities

As of December 31, 2016 and 2015, current liabilities consisted of the following:

	December 31, 2016	December 31, 2015
Accounts payable	$ 227,743	$ 80,945
Accrued payroll	105,258	144,629
Accrued employee benefits	29,552	10,847
Accrued interest	71,998	-
Notes payable	50,000	-
Convertible notes, related party, net of discount	99,804	-
Convertible notes, net of discount	800,172	-
Total	**$ 1,384,528**	**$ 236,421**

On January 28, 2016 the Company entered into promissory notes with three investors for a total amount of $50,000. The notes mature one year from the issue date, accrue no interest and are payable at maturity. The Company accounted for imputed interest of $3,704 for the year ended December 31, 2016, which was calculated at a rate of 8% per annum, consistent with other notes issued by the Company. Subsequent to the period ending December 31, 2016 the Company and the promissory note holders agreed to extend the maturity date of all three notes to July 31, 2017 on the same terms as previously agreed.

On April 22, 2016, the Company entered into convertible promissory notes with approximately 60 investors for a total amount of $1,386,448, $132,000 of which were purchased by Related Parties (the “April 2016 Notes”). The April 2016 Notes mature on May 12, 2017, accrue interest at the rate of 8% per annum, are payable at maturity and are secured by all assets of the Company, now owned or hereafter acquired. Pursuant to the terms of the April 2016 Notes, noteholders holding a majority of the outstanding principal amount of the convertible promissory notes have elected to convert all outstanding April 2016 Notes into shares of the Company’s common stock at a conversion price of $0.40 per share, or 3,576,225 shares of the Company’s common stock (which numbers do not take into account the anticipated reverse stock split (see Note 11)). In connection with the issuance of the April 2016 Notes, the Company recorded a debt discount at an initial aggregate value of $1,386,448, of which $899,976 was amortized during the year ended December 31, 2016, resulting in a debt discount balance of $486,472 as of December 31, 2016.

The Company accrued interest expense of $71,998 for the period ended December 31, 2016, $5,601 of which was payable for the notes due to Related Parties.

Subsequent to the period ending December 31, 2016, the Company extended the April 22, 2016 note offering by $250,000. The extension was made available only to existing noteholders and obtained subscriptions for $225,000.

Note 7 – Capital Stock

At December 31, 2016, the authorized capital of the Company consisted of 60,000,000 shares of capital stock, consisting of 50,000,000 shares of common stock with a par value of $0.0001 per share, and 10,000,000 shares of preferred stock with a par value of $0.0001 per share.

During the year ended December 31, 2016, the Company issued 3,497 shares of common stock for warrants exercised for $5,000. There was $36,000 stock to be issued during the year ended December 31, 2016 for services. There was $81,000 of stock payable as of December 31, 2016.

As of December 31, 2016, there were 2,531,808 shares of Common Stock issued and outstanding, and no Preferred Stock outstanding for either period.

Note 8 – Stock Options and Warrants

During the year ended December 31, 2016, the Company granted options to purchase 34,617 shares of common stock with an exercise price of $2.86 per share to employees of the Company. The stock options vest immediately. The fair value of these options was determined to be $194,362 using the Black-Scholes-Merton option-pricing model based on the following assumptions: (i) volatility rate of 90%, (ii) discount rate of 0%, (iii) zero expected dividend yield, and (iv) expected life of 5 years. A summary of option activity under the Company option plans as of December 31, 2016, and changes during the period then ended is presented below:

	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term
Balance outstanding at December 31, 2014	301,165	$ 2.86	3.62
Granted	197,847	2.84	4.51
Exercised	-	-	-
Forfeited	-	-	-
Cancelled or expired	-	-	-
Balance outstanding at December 31, 2015	499,012	$ 2.86	3.62
Granted	34,617	2.86	4.26
Exercised	-	-	-
Forfeited	-	-	-
Cancelled or expired	(2,045)	2.86	-
Balance outstanding at December 31, 2016	531,584	$ 2.86	2.72
Exercisable at December 31, 2016	447,843	$ 2.86	2.52

During the year ended December 31, 2016, the Company granted warrants to purchase 3,497 shares of common stock with an exercise price of $5.72 per share during the warrant exchange program for exercised warrants. The warrants vest immediately. The fair value of these warrants was determined to be $5,823 using the Black-Scholes-Merton option-pricing model based on the following assumptions: (i) volatility rate of 90%, (ii) discount rate of 0%, (iii) zero expected dividend yield, and (iv) expected life of 5 years.

The following table summarizes all stock warrant activity for the year ended December 31, 2016:

	Number of Warrants	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term
Balance outstanding at December 31, 2014	879,805	$ 1.82	1.52
Granted	502,082	5.21	3.81
Exercised	(412,046)	1.49	0.05
Forfeited	-	-	-
Expired	(204,114)	1.91	0.07
Balance outstanding at December 31, 2015	837,406	$ 4.08	2.87
Granted	3,497	5.72	4.31
Exercised	(3,497)	1.43	-
Forfeited	-	-	-
Expired	(302,564)	1.75	-
Balance outstanding at December 31, 2016	534,842	$ 5.41	3.56
Exercisable at December 31, 2016	534,842	$ 5.41	3.56

Note 9 – Income Taxes

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company's deferred tax assets as of December 31, 2016 and 2015 are summarized below.

	2015	2016
Net operating loss carryforward	$ (3,294,333)	$ (3,881,317)
Stock based compensation	241,857	1,980
Fair value of options	93,105	78,311
Total deferred tax assets	(2,959,372)	3,801,026
Valuation allowance	2,959,372	(3,801,026)
Net deferred tax asset	-	-

In assessing the potential realization of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will be realized. The ultimate realization of deferred tax assets is dependent upon the Company attaining future taxable income during the periods in which those temporary differences become deductible. As of December 31, 2016 and 2015, management was unable to determine if it is more likely than not that the Company's deferred tax assets will be realized, and has therefore recorded an appropriate valuation allowance against deferred tax assets at such dates.

No federal tax provision has been provided for the years ended December 31, 2016 and 2015 due to the losses incurred during such periods. Reconciled below is the difference between the income tax rate computed by applying the U.S. federal statutory rate and the effective tax rate for the years ended December 31, 2016 and 2015.

	2015	2016
U.S. federal statutory income tax	-34.00%	-34.00%
State tax, net of federal tax benefit	-5.80%	-5.80%
Stock based compensation	0.00%	0.00%
Change in valuation allowance	39.80%	39.80%
Effective tax rate	0.00%	0.00%

At December 31, 2016, the Company has available net operating loss carryforwards for federal and state income tax purposes of approximately $11.2 million and $8.6 million, respectively, which, if not utilized earlier, expire through 2036.

Note 10 – Commitments & Contingencies

From time to time the Company may become a party to litigation in the normal course of business. Management believes that there are no current legal matters that would have a material effect on the Company's financial position or results of operations.

On November 11, 2007, the Company entered into an at-will employment agreement with its Chief Operating Officer (now its Chief Technology Officer). The employment agreement requires annual base salary payments of $200,000 per year, with a bonus potential of 20% of the then current base salary. In addition, the executive has been granted an option to purchase 103,000 shares of Company's common stock exercisable at $2.86 per share, vesting in 3 equal annual installments on each anniversary of its three year term. The agreement also provides for severance compensation if terminated other than for cause (as defined) of 6 months of the then applicable base salary if the COO has been employed at least 6 months, and compensation equal to 12 months of the then applicable base salary if employed over 12 months.

On August 28, 2014, the Company entered into a services agreement with StoryCorp Consulting dba Wells Compliance Group for financial reporting and compliance services. David R. Wells is the owner of this firm and is the Company's Chief Financial Officer. The services agreement calls for payments of $5,000, and accrues an additional $3,000 per month in fees to be paid by common stock at the time of a public offering. The accrued balance due under the cash portion as of December 31, 2016 and December 31, 2015 was $25,000 and $10,000 respectively, and the accrued balance due under the stock portion was $81,000 and $45,000, respectively. The Company can cancel the contract at any time without notice.

Effective January 1, 2015, we entered into an office lease agreement with Green Court, LLC, a Michigan limited liability company, for approximately 3,657 rentable square feet of space, for the initial monthly rent of $5,986, which commenced on January 1, 2015 for an initial term of 60 months. Under the terms of the lease the Company has an option on the same space for an additional 60-month term. Future minimum payments under this lease are as follows:

2017	$	75,454
2018		77,348
2019		79,269
Total	$	232,071

For the periods ended December 31, 2016 and December 31, 2015, the Company incurred rent expense of $74,250 and $73,115, respectively.

On April 16, 2015, the Company entered into an at-will employment agreement with its Chief Executive Officer. The employment agreement requires annual base salary payments of $250,000 per year with a bonus potential of 50% of the then current base salary. In addition, the executive has been granted an option to purchase 124,248 shares of Company's common stock exercisable at $2.86 per share, vesting in 3 equal annual installments on each anniversary of its three year term. The agreement also provides for severance compensation if terminated other than for cause (as defined) of 6 months of the then applicable base salary if the CEO has been employed at least 6 months, and compensation equal to 12 months of the then applicable base salary if employed over 12 months.

Note 11 – Subsequent Events

Subsequent to the period ending December 31, 2016, the Company has filed a registration statement on Form S-1 with the U.S. Securities and Exchange Commission in connection with a proposed offering of its securities. On March 8, 2017, the board of directors of the Company approved resolutions authorizing the Company to effect a reverse split of the Company's common stock at certain exchange ratios ranging from 1:2.50 to 1:4.00, with the board of directors retaining the discretion as to whether to implement the reverse stock split and which exchange ratio to implement. The Company has obtained consent from stockholders holding a majority of the outstanding shares of the Company's common stock to effect such a reverse stock split of the Company's common stock at the same exchange ratios prior to the closing of this offering. Following the effectiveness of the registration statement of which the prospectus is a part, and prior to the closing of the offering, the Company anticipates that it will effect the reverse stock split at a ratio of 1 share for each 3.50 shares.

Since the 1-for-3.50 reverse stock split is to be effected after the effectiveness of the registration statement, the historical share information included in the accompanying financial statements and notes hereto do not assume the 1 for- 3.50 reverse stock split, and accordingly have not been adjusted.

On a pro forma basis, taking into account the anticipated reverse stock split at a ratio of 1 share for each 3.50 shares outstanding as of the following dates of presentation, the Company's earnings per share would change as follows:

As Presented:

		Fiscal Year Ended December 31, 2016
Net Loss	$	(2,775,369)
Basic and diluted net loss per common share	$	(1.10)
Weighted average shares outstanding, basic and diluted		2,531,566

Pro forma:

		Fiscal Year Ended December 31, 2016
Net Loss	$	(2,775,369)
Basic and diluted net loss per common share	$	(3.84)
Weighted average shares outstanding, basic and diluted		723,322

Subsequent to the period ending December 31, 2016, the Company extended the April 22, 2016 note offering by $250,000. The extension was made available only to existing noteholders and $225,000 of the offering was subscribed.

Subsequent to the period ending December 31, 2016, the Company and certain promissory note holders agreed to extend the maturity date of all three of such holders' promissory notes to July 31, 2017 on the same terms as previously agreed. The promissory notes were originally entered into on January 28, 2016 for a total amount of $50,000. The notes originally matured one year from the issue date.

1,680,000 Units

PROSPECTUS

National Securities Corporation **Dougherty & Company**

Until June 2, 2017, all dealers that effect transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to the dealers' obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.